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ANPRISA PTY LTD

Detailed Site Investigation

40-76 William St, Leichhardt NSW

E24470.E02_Rev8
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Executive Summary

Background

Anprisa Pty Ltd ('the client') engaged EI Australia (EI) to conduct a Detailed Site Investigation (DSI) at 40-76 William St, Leichhardt NSW ('the site').

The site is currently occupied by large storage warehouses and car parking. The site is identified as Lot 2 in DP 789576 and is situated within the Local Government Area of Inner West City Council. The site covers a total area of approximately 6,930 m^2.

The purpose of this investigation was to determine the environmental conditions (contamination status) of the site, in support of a rezoning and planning proposal to NSW Department of Planning, Housing and Infrastructure. The DSI enables the developer to meet obligations under the *State Environmental Planning Policy* (Resilience and Hazards) (2021) (formerly SEPP 55 – Remediation of Land), for the assessment and management of contaminated soil and/or groundwater, should these be identified.

Objectives

In accordance with the EI proposal (EI, Ref. P17633.2, 24 October 2019), the proponent is required to undertake a detailed contamination assessment for any future development applications. The primary objectives of this investigation are:

- Evaluate the potential for site contamination on the basis of historical land uses, anecdotal and documentary evidence of possible pollutant sources;
- To investigate the degree of any potential contamination by means of limited intrusive sampling and laboratory analysis, for relevant contaminants; and
- Where site contamination is confirmed, make recommendations for the appropriate management of any contaminated soils and/or groundwater.

Scope of Works

The scope of works included, a desktop study, site inspection, drilling of 17 boreholes, installation of 4 groundwater monitoring well to a maximum depth of 9 m, multiple level soil sampling within fill and natural soils and two rounds of groundwater sampling (2020 & 2021), and laboratory analysis for potential organic and inorganic contaminants.

Findings

- The site was free of statutory notices issued by the EPA;
- Based on land title history of the site and aerials photos, the allotment known as 40-76 William Street, Leichhardt appears to have been used for John Heine Site (machine tools manufacturing) from pre-1914 until 1952 and then became Cyclops Toys until 1980s. From 1980 onwards, it was mainly been used as storage warehouse.
- Soil sampling and analysis were conducted at 17 targeted test bore locations (BH1 – BH17) across the site down to a maximum depth of 11.23 mBGL. Sampling regime was considered to be appropriate for preliminary investigation purposes and comprised judgemental and systematic (triangular grid) sampling patterns, with allowance for structural obstacles (e.g. building walls, underground and overhanging services and other physical obstructions in use by existing operating businesses);

- The sub-surface layers comprised of fill materials of various constituents, comprising dark brown to brown silty and alluvial sands, underlain by yellow-brown sandy clay and Sandstone;
- Groundwater was encountered at depth at 1.6 meters below ground level during drilling at one location (BH4M), and standing water level was encountered at depths ranging from 2.01 to 3.28 mBGL during GME;
- Results of soil samples collected from soil test boreholes BH1 to BH17 reported concentrations of the screened heavy metals, PAHs, BTEX, TRH, OCP/OPP/PCBs and asbestos to be below the adopted human health and ecological based SILs, with the exception of:
  - Concentration of lead (2500mg/kg) in sample BH15_0.4-0.5 exceeded the HIL B for residential exposure settings; and
  - Asbestos was identified in sample BH9a_0.5-0.7.
- Results of groundwater samples collected from groundwater monitor wells BH1M, BH3M, BH4M and BH9M reported concentrations of the heavy metals, Cyanide, PAHs, BTEX, Phenols, TRH, VOCs, to be below the adopted GILs, with the exception of:
  - Monitoring well BH3M reported concentrations of <6.5 pH units for aluminium (49 µg/L), nickel (8 µg/L), and zinc (50 µg/L), and monitoring well BH9M reported concentrations of zinc (43 µg/L) exceeding the ANZG (2018) criteria;
  - Monitoring well BH9M reported concentrations of <6.5 pH units for aluminium (66 µg/L) exceeding the ANZG (2018) criteria;
  - Monitoring well BH1M reported concentrations of F1 (910µg/L), and monitoring well BH4M reported concentrations of F2 (330 µg/L), F3 (4600µg/L), and F4 (2000µg/L), BH9M reported concentrations of F2 (57000 µg/L), F3 (4800µg/L), and F4 (1800µg/L) exceeding the ANZG (2018) criteria. The sampling in 2021 did not detect elevated hydrocarbons;
  - Monitoring well BH4M reported concentrations of benzo(a)pyrene (56 µg/L) exceeding the ANZG (2018) criteria, the sampling in 2021 did not detect elevated B(a)P;
- On review of the Conceptual Site Model (CSM) developed as part of this DSI, it was concluded that the model remains valid for the proposed development, however the following data gap remains:
  - The source of TRH (on and/or offsite) in groundwater identified during the investigation;
  - The groundwater quality immediately hydraulically down-gradient to the previous large factory building (69 Allen Street, Leichhardt); and
  - The quality of soil beneath buildings – large percentage of floor space not accessible during this investigation.

Based on the findings from this DSI conducted in accordance with the investigation scope agreed with the Client, and with consideration of the Statement of Limitations, EI conclude that widespread contamination was not identified at the site. While EI did not identify any contamination that would preclude the site from being developed for the proposed land use, it is recommended that a remediation action plan (RAP) be developed to consider the identified groundwater contamination and data gaps.

In view of the proposed development scope, and currently available information, EI consider that the site can be made suitable for the proposed residential use, provided the recommendations outlined in **Section 11** are implemented.

EI considers that the site contamination issues can be managed through the development application process in accordance with the *State Environmental Planning Policy 55 (SEPP 55) – Remediation of Land*, with the requirements for remediation and validation incorporated into conditions of development consent.

Recommendations

In view of the above findings and in accordance with the NEPM 2013 guidelines, it is considered that the site can be made suitable for the proposed residential development on completion of the following recommendations:

- Prior to any site demolition, carry out a Hazardous Materials Survey for the existing structures on-site to identify potentially hazardous building products that may get released into the environment during demolition, in order to protect site personnel and to inform the implementation of special waste management measures (if necessary);
- Preparation and implementation of a Remedial Action Plan (RAP), which should:
  - Design an additional intrusive investigation to close the data gaps identified during this investigation, which should be done following demolition or current tenants (storage units) vacating the premise;
  - Outline the remediation requirements for contamination identified during this DSI and other contamination that may be identified during data gap closure investigations;
  - Provide the requirements and procedure for waste classification assessment, in order to enable classification of site soils to be excavated and disposed off-site during the proposed basement excavation, in accordance with the *Waste Classification Guidelines* (EPA, 2014); and
  - Provide a SAQP for the validation of remediation activities performed on-site.
- Undertake supplementary investigations, and subsequent remediation and validation works for the site, as outlined in the RAP. EI note that due to current site constrains, the additional investigations and remediation works may be conducted after site demolition when access to areas of environmental concern is made available.
- Preparation of a final site validation report by a suitably qualified environmental consultant, certifying site suitability of soils and groundwater for the proposed land use.

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1. Introduction

1.1 Background and Purpose

Anprisa Pty Ltd ('the client') engaged EI Australia (EI) to conduct a Detailed Site Investigation (DSI) at 40-76 William St, Leichhardt NSW ('the site').

The site is currently occupied by large storage warehouses and car parking. The site is identified as Lot 2 in DP 789576 and is situated within the Local Government Area of Inner West City Council (**Figure 1**). The site covers a total area of approximately 6,931 m^2, as shown on **Figure 2**.

The purpose of this investigation was to determine the environmental conditions (contamination status) of the site, in support of a rezoning and planning proposal to NSW Department of Planning, Housing and Infrastructure. The DSI enables the developer to meet obligations under the *State Environmental Planning Policy* (Resilience and Hazards) (2021) (formerly SEPP 55 – Remediation of Land), for the assessment and management of contaminated soil and/or groundwater, should these be identified.

This DSI accompanies a Rezoning Report and addresses the Secretary's Environmental Assessment Requirements (SEARs), in support of a State Significant Development Application (SSDA) for the construction and operation of proposed development, reference SSD-119545240.

This report addresses the SEARs issued for the project, notably:

SEARs Requirement	Section of Report where response is provided
13. Contamination and Remediation In accordance with Chapter 4 of SEPP (Resilience and Hazards) 2021, assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development.	Section 8, 9, 10 and 11

1.2 Proposed Development

Based on the supplied plans **(Appendix C)**, the proposed development involves the demolition of all existing structures and the construction of four multi-storey residential buildings (Building A to Building E), overlying a two-level basement.

According to the proposed plan, the basement has been designed to a Finished Floor Level (FFL) of RL 3.5 metres Australian Height Datum (mAHD). Deeper excavations will be required to allow for basement construction, including footings; service trenches, crane pads, and lift overrun pits. The development will also include deep soil zones proposed for landscaping along the south-western and southern boundary of the site, as shown in **Figure 2**.

1.3 Regulatory Framework

The following regulatory framework and guidelines were considered during the preparation of this report:

- ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality;

- DEC (2007) Guidelines for the Assessment and Management of Groundwater Contamination;
- EPA (2017) Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme;
- EPA (2020) Consultants reporting on contaminated land;
- EPA (2022) Sampling Design Guideline
- NEPC (2013) Schedule B (1) Guideline on Investigation Levels for Soil and Groundwater;
- NEPC (2013) Schedule B (2) Guideline on Site Characterisation;
- *Contaminated Land Management Act 1997*;
- State Environmental Planning Policy (Resilience and Hazards) 2021– *Remediation of Land*.

1.4 Project Objectives

In accordance with the EI proposal (EI, Ref. P17633.2, 24 October 2019) the proponent is required to undertake a detailed contamination assessment for any future development applications. The primary objectives of this investigation are:

- Evaluate the potential for site contamination on the basis of historical land uses, anecdotal and documentary evidence of possible pollutant sources;
- To investigate the degree of any potential contamination by means of limited intrusive sampling and laboratory analysis, for relevant contaminants; and
- Where site contamination is confirmed, make recommendations for the appropriate management of any contaminated soils and/or groundwater.

1.5 Scope of Works

In order to achieve the above objectives, the scope of works included:

Desktop Study

- A review of available mapping for the project area;
- A land titles search, also conducted through NSW Land and Property Information for information relating to historical ownership of the site;
- A search of NSW WorkCover (SafeWork NSW) records for information relating to possible underground tank approvals and locations;
- A search of EPA records under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*; and
- A review of existing underground services on site.

Field Work & Laboratory Analysis

- A site inspection;
- Drilling of boreholes at 17 locations across accessible areas of the site; installation of 4 groundwater monitoring well to a maximum depth of 9 m (or prior refusal), and constructed to standard environmental protocols to investigate potential groundwater contamination;

- Multiple level soil sampling within fill and natural soils and two rounds of groundwater sampling (2020 & 2021) from the constructed groundwater monitoring well; and
- Laboratory analysis of selected soil and groundwater samples for relevant analytical parameters as determined from the site history survey and field observations during the investigation programme.

Data Analysis and Reporting

The DSI would be prepared in general accordance with the consultant reporting guidelines (EPA, 2020) and document the desk study findings, site observations, the conceptual site model, data quality objectives, investigation methodologies and results including borehole and monitoring well construction logs. The laboratory analytical results would be compared to appropriate publish criteria and assessed for potential risks to human health, the environment and the aesthetic uses of the land. There has been no additional site work conducted since 2021.

2. Site Description

2.1 Property Identification, Location and Physical Setting

The site identification details and associated information are presented in **Table 2-1**, while the site locality is shown in **Figure 1**.

Table 2-1 Site Identification, Location and Zoning

Attribute	Description
Street Address	40-76 William St, Leichhardt NSW
Location Description	Approx. 5 km west of Sydney CBD, bound by William Street (north), commercial and residential properties (east and south), and North Street (west).
Site Coordinates	North-east corner of site (datum GDA94-MGA56): Easting: 329280.692 Northing: 6249883.51 (Source: http://maps.six.nsw.gov.au)
Site Area	6,930 m^2
Lot and Deposited Plan (DP)	Lots 2 in DP789576
State Survey Marks	Two State Survey Marks (SSM) are situated in close proximity (<150m) to the site: ▪ SS91690 on the Corner of William Street and Francis Street; and ▪ PM33344F on the corner of William Street and Elswick Street North. (Source: http://maps.six.nsw.gov.au)
Local Government Authority	Inner West City Council
Parish	Petersham
County	Cumberland
Current Zoning	R1 – General Residential (Inner West Local Environmental Plan 2022)
Current Land Uses	Multi-storey commercial storage warehouses and carpark.

The assessment area is illustrated in **Figure 2**.

2.2 Surrounding Land Use

The site is situated within an area of mixed land uses and current uses. Current uses of surrounding land are described in **Table 2-2**.

Table 2-2 Surrounding Land Uses

Direction Relative to Site	Land Use Description /Sensitive Receptors
North	William Street, a two lane, asphalt-paved road. Beyond this are one to two-storey brick residential and mixed-use buildings with no apparent basements, as well as Hubert Street, a two lane, asphalt-paved road.

Direction Relative to Site	Land Use Description /Sensitive Receptors
South	Two residential flat buildings which form part of the 96 Francis Street development. The eastern building is setback about 3m, and the western building is setback about 8m from the southern site boundary, respectively.
East	Property at 38 William Street, a three-storey brick warehouse building which has been converted to a residential building (the original Cyclops Toys Factory) and abuts the eastern site boundary. Continuing to the south are No's. 84 to 78 Francis street, which comprise two storey warehouse buildings which have been converted into residential dwellings. These are setback from the eastern site boundary by about 6m. And continuing further to the south is No. 69 Francis Street, a large residential flat development comprising a total of about 17 buildings. Adjoining the eastern site boundary is one building which comprises five two to three-storey townhouses with parking and a shed at the rear. The shed and parking area about the southern end of the eastern site boundary, and the residences are setback about 19m from the eastern site boundary.
West	Mixed commercial and residential properties followed by Francis Street (St Columba's Catholic Primary School 65 m and North Street Playground 15m)

Sensitive land uses, such as schools, hospitals or childcare centres, were identified within the 500m to the west and east of the site.

2.3 Regional Setting

Regional topography, geology, soil landscape and hydrogeological information are summarised in **Table 2-3**.

Table 2-3 Regional Setting Information

Attribute	Description
Topography	The site generally lies flat, with a slight gradient to the west, towards North Street, from approximate RL 11.99 mAHD at Francis Street, to approximate RL 11.32 mAHD at the North Street (Ref. Survey by TSS Total Surveying Solutions, job no. 192394, date 15/10/2019).
Site Drainage	Consistent with the general slope of the site, stormwater is assumed to flow west towards Hawthorne Canal via drainage systems discharging to various stormwater easements and the municipal stormwater system.
Regional Geology	With reference to the 1:100,000 scale Geological Series Sheet 9130 (Sydney) the site is likely to be underlain by the Hawkesbury Sandstone, which is described as *medium to coarse-grained quartz sandstone, very minor shale and laminate lenses*.
Soil Landscapes	The Soil Conservation Service of NSW Soil Landscapes of the Sydney 1:100,000 Sheet (Chapman and Murphy, 1989) indicates that the site overlies the Gymea (gy) Erosional Landscape, which typically includes Hawkesbury Sandstone.
Acid Sulfate Soil Risk	With reference to the Botany Bay Acid Sulfate Soil Risk Map (1:25,000 scale; Murphy, 1997), the subject land lies within the map class description of *No Known Occurrence*. In such cases, acid sulfate soils (ASS) are not known or expected to occur and "land management activities are not likely to be affected by ASS materials". The Inner West Local Environmental Plan 2022- Acid Sulfate Soils Risk Class 1:10,000 scale Map indicates that the site lies within a Class 5 area. The need for further acid sulfate soil assessment and management has not been considered.

Attribute	Description
Nearest Surface Water Feature	Hawthorne Canal is located approximately 500m west to 650 m north of the site and forms the nearest surface water body in relation to the site. Hawthorne Canal flows into Iron Cove.
Groundwater Flow Direction	Groundwater flow direction in the vicinity of the site is inferred to be towards the north-west toward Hawthorne Canal and Iron Cove.

2.4 Groundwater Bore Records and Groundwater Use

An online search of registered groundwater bores was conducted by EI on the 13 January 2020 through the Water NSW online database (Ref. http:// realtimedata.water.nsw.gov.au/water.stm). There were 6 registered bores within about 500 m of the site. A summary of them is presented with selected details in **Table 2-4**. A bore location plan and detailed information regarding the listed bores is attached in **Appendix D**.

Table 2-4 Summary of Registered Water Bores within 500m of the site

Bore No.	Date Drilled	Drilled Depth (m)	SWL*/Salinity/Yield	Bore Purpose
GW111663	09/11/2011	4	-	Monitoring Bore
GW111653	09/11/2011	2.5	-	Monitoring Bore
GW111654	09/11/2011	3	-	Monitoring Bore
GW114005	06/12/2013	8	-	Monitoring Bore
GW114004	06/12/2013	6.2	-	Monitoring Bore
GW114003	06/12/2013	6.15	-	Monitoring Bore

Note 1 Data not recorded; * SWL – Standing water level measured in mBGL, Salinity – units unspecified, Yield – measured in L/s.

2.5 Site Inspection

Site observations were recorded during a walkover inspection conducted on 16 to 18 December 2019. These are summarised below, and a selection of site photographs taken during the inspection are presented in **Appendix E**.

- At the time of the inspection, the site is currently occupied by large storage warehouses and car parking (**Photo 1&3**); The internal parts of the warehouse were occupied by a series of metal framed and clad private storage units which covered a large percentage of the floor space and were not accessible (**Photo 1**).
- The site consisted mainly of hard pavements. The concrete pavement is generally in good condition with a number of open cracks and expansion joints visible within the eastern carpark area (**Photo 5**). The area under the private storage units could not be inspected;
- Multiple cars, trucks bus noted onsite within the eastern and western carpark (**Photo 3 &6**);
- Loading bays, use of site for storage units was noted within the northern portion of the site (**Photo 7**);
- The existing structures were noted to be in relatively moderate to good conditions, with noticeable structural weathering, with flaked paint observed on the ground surface adjacent to structures (indicating weathering and deposition of debris) (**Photo 3**);

- The warehouse in the middle portion appears to be constructed with corrugated fibrous cement roofing or super-six (probably asbestos containing) (**Photo 2**);
- Timber products were observed at eastern storage warehouse; (**Photo 4**)
- The abuts the eastern site boundary was the original Cyclops Toys Factory, and now has been converted to a set of designer apartments (corner of Francis & William St);
- No visual or olfactory indicators of contamination were detected during the inspection;
- The site use has remained unchanged since 2019; and

No evidence of an underground petroleum storage system (UPSS) and above ground storage tanks (ASTs) was observed.

3. Previous Investigations

3.1 Available Documents

The following documents are available for the site:

- EI Australia (2020a) Asbestos Management Plan; 40-76 William Street, Leichhardt NSW, Project ref E24470.E12_Rev0, dated 17 August 2020;
- EI Australia (2020b) Hazardous Materials Survey; 40-76 William Street, Leichhardt NSW, Project ID E24470.E10_RevB, dated 4 August 2020; and
- EI Australia (2026a) Remediation Action Plan; 40-76 William Street, Leichhardt NSW, Project Ref. E24470.E06_Rev6, dated 7 May 2026.
- EI Australia (2026b) Dewatering Management Plan; 40-76 William Street, Leichhardt NSW, Project ref E24470.E16_Rev2, dated 7 May 2026;

4. Site History

4.1 Land Titles Information

A historical land titles search was conducted through InfoTrack Pty Ltd. Copies of relevant documents resulting from this search are presented in **Appendix F**, in relation to past potential land uses are presented in **Table 4-1**.

Table 4-1 Summary of Owners

Period	Ownership Summary
As regards the part numbered (1) on the attached Cadastral Records Enquiry Report	
21.08.1914 (1914 to 1952)	John Heine & Son Limited
20.03.1952 (1952 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited
14.04.1989 (1989 to 1989)	Chadcott Pty Limited
As regards the part numbered (2) on the attached Cadastral Records Enquiry Report	
14.09.1905 (1905 to 1943)	Carl Ludwig Lindahl (Seaman)
06.01.1943 (1943 to 1945)	Carl Ludwig Lindahl (Engineer) (Transmission Application not investigated)
17.05.1945 (1945 to 1962)	May Edith McGraw (Divorced Petitioner)
06.09.1962 (1962 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited
14.04.1989 (1989 to 1989)	Chadcott Pty Limited
As regards the part numbered (3) on the attached Cadastral Records Enquiry Report	
26.07.1905 (1905 to 1943)	Carl Ludwig Lindahl (Seaman)
06.01.1943 (1943 to 1943)	Carl Ludwig Lindahl (Engineer) (Transmission Application not investigated)

Period	Ownership Summary
02.07.1943 (1943 to 1952)	William Hampstead (Labourer) (or William Leslie Hampstead) Mabel Hampstead (Married Woman)
18.03.1952 (1952 to 1962)	Mabel Hampstead (Widow)
14.12.1962 (1962 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited
14.04.1989 (1989 to 1989)	Chadcott Pty Limited
As regards the part numbered (4) on the attached Cadastral Records Enquiry Report	
17.01.1914 (1914 to 1928)	Sarah Lindahl (Married Woman)
08.01.1928 (1928 to 1928)	Carl Ludwig Lindahl (Seaman) (Transmission Application not investigated)
13.03.1928 (1928 to 1950)	Carl Ludwig Lindahl (Engineer) (Transmission Application not investigated)
31.03.1950 91950 to 1953)	Mabel Hampstead (Widow)
11.02.1953 (1953 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited
14.04.1989 (1989 to 1989)	Chadcott Pty Limited
As regards the part numbered (5) on the attached Cadastral Records Enquiry Report	
16.12.1921 (1921 to 1941)	Blanche Ellison (Married Woman)
23.10.1941 (1941 to 1952)	Peter Oscar Ellison (Retired Master Mariner) (Transmission Application not investigated)
07.06.1952 (1952 to 1962)	Violet O'Neill (Married Woman)
13.02.1962 (1962 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited

Period	Ownership Summary
14.04.1989 (1989 to 1989)	Chadcott Pty Limited
As regards the part numbered (6) on the attached Cadastral Records Enquiry Report	
30.10.1908 (1908 to 1937)	Mary Ann Quinsey (Spinster) Now Mary Ann Scully (Married Woman)
27.07.1937 (1937 to 1951)	Peter Scully (Laborer)
23.05.1951 (1951 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited
14.04.1989 (1989 to 1989)	Chadcott Pty Limited
Continued as regards the whole of the subject land	
14.04.1989 (1989 to 2009)	Kate Lewy
23.03.2009 (2009 to 2013)	Ronny Leopold Lewy Dennis Lewy Garry Lewy
15.03.2013 (2013 to date)	# Dennis Lewy # Garry Lewy # Monica Anne-Marie Lewy

Leases excluding premises (As regards the part numbered (1) on the attached Cadastral Records Enquiry Report): -

- 24.11.1926 to Cyclops Limited, of part of the land in Volume 1548 Folio 209 – expired 22.07.1952
- 04.06.1965 to Sydney County Council, of substation, does not appear to affect – expired 15.02.1988

Leases, excluding premises, continued: -

- Various leases were found from 25.05.1993 that have since expired or have been surrendered, not investigated.

Easements: -

- 20.03.1952 (F 666500) Easement for Drainage 4 feet wide.
- 19.06.1989 (D.P. 789576) Right of Carriageway 5.5 & 8.69 wide
- 24.08.1989 (Y 514880) Cross Easements

In summary, the majority of the site was the machine tool manufacturing factory of John Heine & Sons from 1910s until 1952 and then became Cyclops Toys Factory from 1950s to 1987. From 1980 onwards, it was mainly been used as storage warehouse.

4.2 Historical Aerial Photography Review

As part of the Site Historic Aerial Review, an assessment of surrounding land uses using historical aerial photographs sourced from NSW Land and Property Information was carried out. A summary of the pertinent information identified at surrounding land parcels from the reviewed photographs is presented in **Table 4-2**. The following historical aerial photographs either

received from NSW Land & Property Information or sourced from Six Maps, were reviewed as part of this DSI:

- 1930: 6 March 1930, B/W, Map 3424;
- 1943: Sydney 1943 Imagery, Six Maps (http://maps.six.nsw.gov.au/);
- 1951: May 1951, B/W;
- 1961: B/W, Map 1058-5096, Run 35E – Lands Photo;
- 1986: 2 August 1986, Run 23E, NSW 3527 131;
- 1999: 4 May 1999, Run 5, NSW 4702;
- 2004: 8 October 2004, Run 6, NSW4877; and
- 2018: 12 March 2018, Six Maps (https://maps.six.nsw.gov.au/).

Table 4-2 Summary of Aerial Photograph Review

Aerial Photograph	Site and Surrounding Land Uses Based on Historical Aerial Photographs
1930	The north-west portion of the site was occupied by a few residential dwellings, and the rest of the site was undeveloped. The surrounding area consisted of predominantly residential dwellings with a warehouse/factory building to the south-east of the site. A large factory building (69 Allen Street, Leichhardt) was identified adjacent to the site to the south (hydraulically up-gradient).
1943	The north-west portion of the site remained the same. However, the middle portion of the site was occupied by three warehouse/factory buildings. The surrounding land use remained primarily unchanged, except some extension work was identified at the warehouse/factory building to the south-east of the site.
1951	The site remained unchanged from 1943 imaging. The surrounding land use remained primarily unchanged; however, there is an additional warehouse/factory building to the south-east of the site.
1961	The north-west portion of the site remained the same, while some extension/alteration works were identified at the buildings within the southern portion of the site. The surrounding land use remained primarily unchanged.
1986	The north-west portion of the site was replaced by a multi-level warehouse building, and the middle portion of the site was replaced by a continuous warehouse. The surrounding land use remained primarily unchanged; however, there is an increase in residential properties.
1999	The site remained unchanged from 1986 imaging. The surrounding land use remained primarily unchanged. However, there is an increase in residential properties to the south west of the site. The factory building at 69 Allen Street Leichhardt was replaced by a few residential apartments.
2004 - 2024	The site and surrounding land use remained primarily unchanged.

4.3 SafeWork NSW Dangerous Goods Register Records

A search of SafeWork NSW Dangerous Goods Register records relating to the site did not identify any records pertaining to dangerous goods held at the premises. Correspondence from SafeWork NSW is provided in **Appendix D**.

4.4 Surrounding Land Use Information Review

As part of the Lotsearch Report LS009934_EL (**Appendix D**), an assessment of surrounding land uses in regards to EPA licensed activities, contaminated land searches, former gasworks, national waste management and PFAS investigation programs was carried out. The search highlighted the residential to nature of the surrounding land (within 500m radius) which was on-going from the 1950s to the time of this DSI.

The LotSearch assessment on surrounding properties indicated:

- There was one land registered under the NSW EPA Contaminated Land list. These were as follow:
  - 10-11 Balmain Road, Leichhardt – SRA Land. This land is located 392m east of the site.
- The site identified as 10-11 Balmain Road, Leichhardt also held five notices under the NSW Contaminated Land Record of Notices.
- There were three sites registered under the NSW EPA Contaminated Site list. These were as follow:
  - 7 Darley Road, Leichhardt – Other Industry. Currently regulation under CLM Act not required. This site is located 252m north of the site;
  - 10-11 Balmain Road, Leichhardt – Other Industry. Contamination formerly regulated under the CLM Act. This site is located 392m east of the site; and
  - 240 Balmain Road, Corner city west link, Leichhardt – Other Industry. Regulation under CLM Act not required. This site is located 392m east of the site.
- Three licensed activities under the POEO Act 1997 was identified in close vicinity to the site (≤500m):
  - WestConnex between M4 East and Harberfield and the New M5 at St. Peters, Marrickville – Road Construction. This site is located 75m north-west of the site; and
  - WestConnex between the M4-M5 Mainline Tunnels and Rozelle – Road Construction. This site is located 185m north east of the site.
- Three licensed activities, including application of herbicides and other unspecified activities, were formerly held for sites within the vicinity of the site (463m).
- Five former and existing drycleaners and nine former and existing motor garages & service station were identified by the Lotsearch within the vicinity of the site (≤500m). Currently the only upgradient facilities are the workshops and retail fuel facilities are present at Norton Street Leichhardt (approximately 300m from site) and dry cleaners in Norton Street (approximately 500 m). These are unlikely to impact the site conditions.

Overall, the surrounding site uses were not considered to be sources of contamination, at least for the site defined by this DSI.

The Lotsearch information provides no information on the factory at 69 Allen Street, Leichhardt.

5. Conceptual Site Model

In accordance with NEPM (2013) *Schedule B2 – Guideline on Site Characterisation* and to aid in the assessment of data collection for the site, EI developed a conceptual site model (CSM) assessing plausible pollutant linkages between potential contamination sources, migration pathways and receptors. The CSM provides a framework for the review of the reliability and useability of the data collected and to identify data gaps in the existing site characterisation.

5.1 Subsurface Conditions

Shallow sandy filling overlying residual soil and weathered sandstone. Groundwater was encountered at 1.6 mBGL at one location (BH4M) during this investigation.

5.2 Potential Contamination Sources

Based on the historical information available, the site was predominantly used for commercial purposes at least from since 1966.

The assessment of these risks in relation to this site is outlined in **Table 5-1**.

Table 5-1 Assessment of Potential Contamination Risk

Potential Sources	Impacted Media	Potential Contaminants of Concern	Likelihood for Contamination
Importation of fill of unknown origin and quality placed at the site	Shallow soil	HM, TRH, PAH, BTEX, OC/OP Pesticides, PCB and asbestos	**Medium** Unknown source fill soils were encountered during this investigation across the site area.
Hazardous building products contained in existing site structures	Building fabrics	HM, asbestos and PCB	**Medium to high** The majority of the existing building will be demolished except for the façade. As such, any hazardous materials present within the existing building may be disturbed during re-development works.
Weathering of exposed building fabrics, painted surfaces, and metallic objects from site structures	Near surface soil	HM and asbestos	**Low to medium** Given the age of the structures, potential lead-based paints and asbestos-containing building materials may be used in existing site buildings. Impacts would likely be restricted to surface soils only.
Potential contamination of site soils from previous pesticide use	Near surface soil beneath existing buildings	OCP, OPP, PCB,	**Low** Any impacts, should they be present, would likely be present within the perimeter of existing structures. If present, pesticides are expected to be limited to shallow soils considering the nature of the application.
Potential contamination of site soils from vehicle leakage through cracks on concrete slab	The cracks on the concrete slab	TRH, Metals, PAH, BTEX	**Low to Medium** Significant oil staining was not observed on the concrete carpark during the site walkover, and the hard pavement within

Potential Sources	Impacted Media	Potential Contaminants of Concern	Likelihood for Contamination
			the carpark is in general good condition.
Historical site use for industrial (including the machine tool manufacturing)	Soils and groundwater	Metals, PAH, TRH, BTEX, VOCs	**Medium to high** The site was used for industrial purpose from pre 1910s until around 1980s. From 1980s onwards, the site was used for commercial warehouse. Given the long term of industrial operations onsite, it is considered that there is a medium to high risk of hydrocarbons contamination on-site.
Adjoining lands	Soils and groundwater	Metals, PAH, TRH	**Medium** Five former and existing drycleaners and nine former and existing motor garages & service station were identified by the Lotsearch within the vicinity of the site (≤500m). Currently the only upgradient facilities are the workshops and retail fuel facilities are present at Norton Street Leichhardt (approximately 300m from site) and dry cleaners in Norton Street (approximately 500 m). These are unlikely to impact the site conditions. A big factory building was identified adjacent to the site to the south (69 Allen street, Leichhardt) from 1930s until 1990s. Give to the limited information of the industrial operations of it, it is concluded that there is a medium risk for hydrocarbons contamination on-site.

Note 1 HM – Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc) unless otherwise indicated, TRH – Total Recoverable Hydrocarbons, PAH – Polycyclic Aromatic Hydrocarbons, BTEX – Benzene, Toluene, Ethylene and Xylene, OC/OP pesticides - Organochlorine and Organophosphorus Pesticides, PCB - Poly-chlorinated Biphenyls.

5.3 Emerging chemicals

Chemical Control Orders (CCOs) issued under the EHC Act (1985) are used to selectively and specifically control chemicals of concern for the region. An evaluation of the current risk posed by emerging or controlled contaminants was completed, using the 'decision tree' presented as **Table 5-1** and no unacceptable risks were identified.

Table 5-1 Decision tree for Risk Evaluation

Chemicals of Concern (CCO or emerging)	Decision
Were aluminium smelter wastes used or stored on site (CCO, 1986)?	No
Do dioxin contaminated wastes (CCO, 1986) have the potential to impact the site? [1]	No
Were organotin products (CCO, 1989) used or stored on site? [2]	No
Were polychlorinated biphenyls (PCBs) used or PCB	Possible – if PCB- containing organochlorine

Chemicals of Concern (CCO or emerging)	Decision
wastes (CCO, 1997) stored on-site? [3]	pesticides were used on site
Were scheduled chemical or wastes (CCO, 2004) used or stored? [4]	Possible – if organochlorine pesticides were used on site
Are other emerging chemicals suspected? [5]	No
If Yes to any questions, has Site sampling suite been optimised to include specific sampling for other chemicals of concern in soil, air, and water	Yes

Note 1 From burning of certain chemicals, smelting or chemical manufacturing or fire on or near the Site.
Note 2 From anti-fouling paints used or removed at boat & ship yards and marinas.
Note 3 From older transformer oils & electrical capacitors
Note 4 Twenty-four mostly organochlorine pesticides and industrial by-products
Note 5 Other chemicals considered as emerging e.g. 1, 4 dioxane (associated with some cVOCs).

5.4 PFAS Assessment

Per- and poly-fluorinated substances (PFAS) have recently been highlighted as a persistent and mobile contaminant, of significant toxicity. The potential risk presented by PFAS contamination was evaluated, using the following decision tree (**Table 5-2**). The site did not indicate the potential presence of PFAS contaminants at a level considered as unacceptable, and no further assessment was warranted.

Table 5-2 PFAS Decision Tree

Preliminary Screening	Probability[1]	Justification
Did fire training occur on-site?	L	-
Is an airport or fire station up gradient of or adjacent to the site? [2]	L	None in the vicinity
Have “fuel” fires ever occurred on-site? e.g. ignition of fuel (solvent, petrol, diesel, kerosene) tanks.	L	No evidence of fuel storages onsite.
Have PFAS been used in manufacturing or stored on-site? [3]	L	Possibly used in previous machine tool manufacturing workshop

Note 1 L = Low, M = Medium, H = High.
Note 2 Runoff from fire training areas may impact surface water, sediment and groundwater.
Note 3 PFAS is used wide range of industrial processes and consumer products (https://www.nicnas.gov.au/chemical-information/factsheets/chemical-name/perfluorinated-chemicals-pfas)

5.5 Potential Contaminants

Based on the findings of the site contamination appraisal the potential contaminants at the site are considered to be:

- Soil – heavy metals (HMs), total recoverable hydrocarbons (TRH), polycyclic aromatic hydrocarbons (PAH), the monocyclic aromatic hydrocarbon (MAH) compounds: *benzene, toluene, ethylbenzene and xylenes* (BTEX), organochlorine and organophosphate pesticides (OCP/OPP), polychlorinated biphenyls (PCB), and asbestos.
- Groundwater – HMs, TRH, BTEX, PAH, volatile organic compounds (VOC) and phenols.

5.6 Potential Sources, Exposure Pathways and Receptors

Potential contamination sources, exposure pathways and human and environmental receptors that were considered relevant for this assessment are summarised along with a qualitative assessment of the potential risks posed by complete exposure pathways in **Table 5-3**.

Table 5-3 Preliminary Conceptual Site Model

Potential Sources	Impacted Media	Chemicals of Potential Concern	Transport mechanism	Exposure pathway	Potential receptor
▪ Fill of unknown origin and quality placed at the site; ▪ Weathering of building; ▪ Spills and leaks from parked vehicles; ▪ Potential contamination of site soils from previous industrial/ commercial use (including machine tool manufacturing) ▪ Hazardous materials, including ACM from previously demolished building structure. ▪ Hazardous building materials within existing site structures; ▪ Migration of contamination onto the site from adjoining lands.	Soil	HM, TRH, PAH, OCP/OPP, PCB, BTEXN, and asbestos	Disturbance of surface and subsurface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	Ingestion Dermal contact Inhalation of dust particulates	Construction and maintenance workers End users of the site post redevelopment
			Atmospheric dispersion from soil to outdoor and indoor air spaces	Inhalation dust particulates	
		F1 and F2 TRH, BTEXN and VOCs	Volatilisation of contamination from soil and diffusion to indoor air spaces	Inhalation of vapours from impacted soil	
		HM, TRH, PAH, OCP, BTEXN	Plant uptake of contamination present in root zone	Plant uptake	Future ecological receptors (e.g. site vegetation in landscaped areas post redevelopment)
▪ Hazardous building materials (e.g. ACM, lead paint) within existing site structures.	Building Fabrics	Lead, PCB and asbestos	Release of hazardous materials during uncontrolled demolition of building fabrics	Ingestion; Dermal contact; Inhalation of airborne contaminants	Construction and maintenance workers
▪ Spills and leaks from parked vehicles; ▪ Potential contamination of site soils from previous industrial/ commercial use (including machine tool manufacturing) ▪ Migration of contamination onto the site from adjoining lands.	Groundwater	HMs, TRH, BTEX, phenols, and VOC.	Volatilisation of contamination from groundwater to indoor or outdoor air spaces (onsite and offsite)	Inhalation of vapours	End users of the site post-development Construction and maintenance workers
			Migration of dissolved phase impacts in groundwater	Biota uptake, Ingestion Dermal contact	Aquatic ecosystems

5.7 Data Gaps

Based on information from the site inspection and site history review, EI considered a programme of intrusive investigation was warranted to conduct targeted sampling at locations of known, potential sources of contamination (as listed in **Section 5.2**), with systematic sampling coverage in site areas where operational site history was not documented. However, the following data gap still remained during this investigation:

- A large factory building was identified immediately adjacent to the site to the south (69 Allen Street, Leichhardt) from historical aerials. It is noted that this building was constructed from pre-1930 and was re-developed into residential properties until 1990s. Due to the lack of information of the use of this property, the impact of the historical use of this factory building to the site is unknown; and
- Due to the lack information of the locations of past major machine operations plan, the samples were designed by evenly spread across the site area with an average of 23.9m diameter of the hotspot, which generally complies with the NSW EPA (2022) Sampling Design Guidelines.
- As per the latest architectural plan, a total of approx. 1,030m^2 of land along the southern boundary will be utilised for the proposed landscape area. As per the NSW EPA (2022) Sampling Design Guidelines, eight sampling locations would be required to assess this area. Limited borehole locations (three) were constructed within the proposed landscape area. As such, following the demolition of the existing buildings, a minimum of five sampling locations would be required to assess this area.

6. Methodology

6.1 Sampling, Analytical and Quality Plan (SAQP)

The SAQP ensures that the data collected during environmental works at the site are representative, and provide a robust basis for site assessment decisions. The SAQP includes the following:

- Data quality objectives, including a summary of the objectives of the ESA;
- Investigation methodology including media to be sampled, details of analytes and parameters to be monitored and a description of intended sampling points;
- Sampling methods and procedures;
- Field screening methods;
- Analysis Methods;
- Sample handling, preservation and storage; and
- Analytical QA/QC.

6.2 Data Quality Objectives (DQO)

In accordance with the USEPA (2006) *Data Quality Assessment* and the EPA (2017) *Guidelines for the NSW Site Auditor Scheme*, the process of developing Data Quality Objectives (DQO) was used by the EI assessment team to determine the appropriate level of data quality needed for the specific data requirements of the project. The DQO process that was applied for this assessment is documented in **Table 6-1**.

Table 6-1 Summary of Project Data Quality Objectives

DQO Steps	Details
1. State the Problem Summarise the contamination problem that will require new environmental data, and identify the resources available to resolve the problem; develop a conceptual site model	Site history (**Section 3** and **4**) identified a range of contamination sources with potential to have impacted the site. Intrusive investigation is required to determine: ▪ Is the site suitable for the proposed residential development with minimal access to soil? ▪ Is groundwater beneath the site suitable containing exceedances above ANZG (2018)? and ▪ Does the site pose an unacceptable risk to human and/or ecological receptors?
2. Identify the Goal of the Study (Identify the decisions) Identify the decisions that need to be made on the contamination problem and the new environmental data required to make them	Based on the objectives (**Section 1.4**), decisions that need to be made are ▪ Has enough data been collected to determine the risk of contamination at the site, including potential offsite migration? and ▪ Is the data adequate to determine suitability of the site for residential use?
3. Identify Information Inputs (Identify inputs to decision) Identify the information needed to support any decision and specify which inputs require new environmental measurements	Inputs to the decision-making process include: ▪ The proposed future land use; ▪ Available site historical information; ▪ Previous investigations; ▪ Areas of concern, identified during the site inspection prior to intrusive investigations; ▪ National and NSW EPA guidelines endorsed under the NSW *Contaminated Land Management Act 1997*; ▪ Investigation sampling (soils and groundwater) and laboratory analysis for COPCs to verify the presence of onsite contamination and to evaluate the potential risks to sensitive receptors; and ▪ Further input to the decision will be sample collection and handling, field and laboratory QAQC and confirmation that data quality indicators (DQIs) were achieved.
4. Define the Boundaries of the Study Specify the spatial and temporal aspects of the environmental media that the data must represent to support decision	Spatial – The DSI is limited to the site boundaries (**Figure 2**) and the maximum depth of borehole advancement at each sample location. Temporal – The results will be valid on the day samples are collected and will remain valid if no changes to site use occur, and contamination (if present) does not migrate from off-site sources. Constraints of sampling requiring consideration include access restrictions (due to site operations and/or conditions) and presence of both above and underground services / structures.

DQO Steps	Details
5. Develop the Analytic Approach (Develop a decision rule) To define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for choosing from alternative actions	The decision rules for the investigation are: ▪ What are the characteristics of soil at the site? *Soil boreholes will be advanced to natural, sampled and logged to characterise underlying conditions.* ▪ What are the characteristics of groundwater at the site? *Groundwater monitoring wells will be installed to determine physical characteristics, chemical composition and flow direction of groundwater underlying the site.* ▪ Is the site suitable for the proposed land use? *If the concentrations of contaminants in the soil and groundwater data are below the relevant health-based and ecological criteria for the intended land use; then the site will be deemed suitable for the proposed development.* ▪ Is additional information required to determine the suitability of the site for its proposed use? *Should additional information be required as determined by the conceptual site model (CSM), then appropriate recommendations will be provided.* ▪ Decision criteria for analytical data are defined by the Data Quality Indicators (DQI) in **Table 6-2**.
6. Specify Performance or Acceptance Criteria (Specify limits on decision errors) Specify the decision-maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data	Specific limits for this project are to be in accordance with NEPM, appropriate data quality indicators (DQIs) for assessing the useability of the data and EI standard procedures for field sampling and handling. To assess the useability of the data, pre-determined DQIs for completeness, comparability, representativeness, precision and accuracy were adopted, as presented below in **Table 6-2**. If any of the DQIs are not met, further assessment will be necessary to determine whether the non-conformance will significantly affect the useability of the data. Corrective actions may include requesting further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of samples.
7. Develop the Detailed Plan for Obtaining Data (Optimise the design for obtaining data) Identify the most resource-effective sampling and analysis design for general data that are expected to satisfy the DQOs	Site history indicates the potential for contamination to exist. To achieve the decision rules, the intrusive investigation included: ▪ Sampling of locations in a grid-based pattern across accessible parts of the site, targeting potential source areas identified from site history, site walkover and observations at the site made by EI. ▪ Installation and sampling of groundwater wells of the redevelopment area, to determine groundwater quality. ▪ An upper soil profile sample will be collected at each borehole location and tested for contaminants of potential concern, to assess the conditions of the fill layer, and impacts from commercial and industrial activities at ground level. Further sampling would also be carried out at deeper soil layers. Samples will be selected based on field observations (including visual and olfactory evidence, as well as soil vapour screening in headspace samples) with consideration of subsurface stratigraphy. ▪ Representative groundwater samples will be collected and analysed for groundwater characterisation. ▪ Review of the results will be undertaken to determine if further intrusive investigation (i.e. additional sampling) is warranted.

6.3 Data Quality Indicators

To ensure that the investigation data collected was of an acceptable quality, the investigation data set was assessed against the data quality indicators (DQI) outlined in **Table 6-2**, which related to both field and laboratory-based procedures. The assessment of data quality is discussed in **Section 7**.

Table 6-2 Data Quality Indicators

Data Quality Objective	Data Quality Indicator	Acceptable Range
Accuracy	Field – Trip blank (laboratory prepared) Laboratory – Laboratory control spike and matrix spike	< laboratory limit of reporting (LOR) Prescribed by the laboratories
Precision	Field – Blind replicate and spilt duplicate Laboratory – Laboratory duplicate and matrix spike duplicate	< 30 % relative percentage difference (RPD [%]) Prescribed by the laboratories
Representativeness	Field – Trip blank (laboratory prepared) Laboratory – Method blank	< laboratory limit of reporting (LOR) Prescribed by the laboratories
Completeness	Completion (%)	-

6.4 Sampling Rationale

The primary purpose of this assessment is to evaluate the environmental and human-health risks associated with potential contamination at the site. In the context of this assessment, these risks may be defined as the probability that the utility of the site may be diminished by the presence of soil or soil vapour or groundwater contamination, which may require that the site be remediated.

Based on the findings of a preliminary site investigation the following sampling plan included:

- Sampling fill and natural soils from 17 test bore locations, located using a grid-based pattern within accessible parts of the site;
- Installation of 4 groundwater monitoring wells on the upgradient and downgradient boundaries;
- Completion of a two groundwater monitoring event (2020 & 2021) to assess potential groundwater impacts; and
- Laboratory analysis of representative soil and groundwater samples for the identified potential contaminants.

Whilst this approach provides a solid framework for the preliminary assessment, some limitations remain including:

- The internal parts of the warehouse were occupied by a series of metal framed and clad private storage units which covered a large percentage of the floor space and were not accessible during this investigation;
- The lack of the detailed historical information of the locations of major manufacturing operations limited the assessment to a broad sampling grid to assess the potential

contamination onsite, generally in accordance with the NSW EPA (1995) Sample Design Guidelines.

- Three hydraulically up-gradient monitoring well and one down-gradient well were installed during this investigation. However, due to the lack of information of the historical use of the adjoining land (69 Allen Street, Leichhardt), impacts from previous industrial operations on the site are remained to be confirmed.

6.5 Investigation Constraints

The number of test bores drilled and monitoring wells installed during the investigation phase did not achieve the planned investigation scope described in **Section 6.1** due to a number of physical obstructions, which comprised:

- The internal parts of the warehouse were occupied by a series of metal framed and clad private storage units which covered a large percentage of the floor space and were not accessible during this investigation. The area under the private storage units could not be inspected;
- Due to the sandstone boulder was encountered at BH12 and BH5 at shallow depth, deeper soil profile was not reached at this subject location.
- Shallow depth of bedrock was encountered at BH9, and two trial locations (BH9a and BH9b) were located in adjacent to BH9M. Samples were taken from BH9a and BH9b, and no sample was taken from BH9M. Monitoring well was installed in BH9M due to the ground slope at BH9a and BH9b.

6.6 Assessment Criteria

The assessment criteria proposed for this project are outlined in **Table 6-3**. These were selected from available published guidelines that are endorsed by national or state regulatory authorities, with due consideration of the exposure scenario that is expected for various parts of the site, the likely exposure pathways and the identified potential receptors.

Table 6-3 Adopted Investigation Levels for Soil and Groundwater

Environmental Media	Adopted Guidelines	Rationale
Soil	NEPM, 2013 Soil HILs, HSLs & Management Limits for TPHs	**Soil Health-based Investigation Levels (HILs)** As a conservative approach, all soil samples within building and basement footprints will be assessed against the NEPM 2013 HIL-B thresholds for residential sites with minimal access to soils. All soil samples within the rest area of the site will be assessed against the NEPM 2013 HIL-C thresholds for public open space purposes. **Ecological Investigation and Screening Levels (EILs) / (ESLs)** The NEPC (2013) EILs/ESLs were also applied in landscape garden areas. To derive the EIL criteria, EI added conservative Added Contaminant Limit (ACL) with the Ambient Background Concentration (ABC) for an old NSW and low traffic suburb. Additionally, the most conservative ESL criteria

Environmental Media	Adopted Guidelines	Rationale
		were adopted for coarse grained soils. **Soil Health-based Screening Levels (HSLs)** Petroleum Hydrocarbon HSLs: The NEPM (2013) HSL-A&B thresholds for low to high density residential land use were applied to proposed residential areas, to assess for potential human health impacts from residual vapours resulting from petroleum, BTEX & naphthalene. The NEPM (2013) HSL-D thresholds commercial land use were applied to the proposed basement footprint, assess for potential human health impacts from residual vapours resulting from petroleum, BTEX & naphthalene. The NEPM (2013) HSL-C thresholds recreational land use were applied to the proposed open space areas, assess for potential human health impacts from residual vapours resulting from petroleum, BTEX & naphthalene. Asbestos HSLs: WADOH (2009) assessment criteria, as presented in NEPM (2013), were not adopted during this investigation. Presence / absence of asbestos (not-detected) were utilised for preliminary screening purposes. **Management Limits for Petroleum Hydrocarbons** Should the HSL be exceeded for petroleum hydrocarbons, soil samples would also assess against the NEPM 2013 *Management Limits* for the TRH fractions F1 – F4 to assess propensity for phase-separated hydrocarbons (PSH), fire and explosive hazards & adverse effects on buried infrastructure.
Groundwater	NEPM, 2013 GILs for Marine Waters	**Groundwater Investigation Levels (GILs) for Marine Water** ANZG, 2018 provides GILs for typical, slightly-moderately disturbed aquatic ecosystems, which are based on the ANZAST 2018 Trigger Values (TVs) for the 95% level of protection of aquatic ecosystems; however, the 99% TVs were applied for the bio-accumulative metals *cadmium* and *mercury*. The marine criteria were considered relevant as the closest, potential surface water receptor was Hawthorne Canal located 500m west of the site and understood to be tidally influenced. Due to the ANZG, 2018 criteria for petroleum hydrocarbons being below the laboratory limit of reporting, the PQL for each TRH fraction was adopted as the GIL for aquatic ecosystems, as per the guidance provided in DEC (2007) *Guidelines for the Assessment and Management of Groundwater Contamination*.
	NEPM, 2013 Groundwater HSLs for Vapour Intrusion	**Health-based Screening Levels (HSLs)** As groundwater at the site will be in contact with the proposed basement, HSL groundwater criteria have not been adopted. Should F1 TRH, F2 TRH, and BTEXN be reported during the investigation, further investigation will

Environmental Media	Adopted Guidelines	Rationale
		be required.
	NEPM (2013) GILs for Drinking Purposes	**Drinking Water GILs** The NEPM (2013) GILs for drinking water quality were applied for the assessment of direct contact with groundwater. Drinking Water values are multiplied by a factor of 10 to address potential groundwater contact by basement users, and construction and maintenance workers. These values are based on the Australian Drinking Water Guidelines (Ref. NHMRC, 2017).

For the purposes of this investigation, the adopted soil assessment criteria are referred to as the Soil Investigation Levels (SILs) and the adopted groundwater assessment criteria are referred to as the Groundwater Investigation Levels (GILs). SILs and GILs are presented alongside the analytical results in the corresponding summary tables, which are discussed in **Section 8**.

6.7 Soil Investigation

The soil investigation works conducted at the site are described in **Table 6-4**. Test bore locations are illustrated in **Figure 2**.

Table 6-4 Summary of Soil Investigation Methodology

Activity/Item	Details
Fieldwork	The site investigation was conducted on 16 to18 December 2019 and 3 September 2021.
Drilling Method & Investigation Depth	Test bore BH1M to BH4M, BH9M, BH14 to BH17 were drilled using a Hanjin/Christie solid flight auger drill rig. Test bores BH5 to BH8, BH10 to BH13 were drilled by hand auger. Final bore depths ranged from 0.4 m to 11.23 mBGL.
Soil Logging	Drilled soils were classified in the field with respect to lithological characteristics and evaluated on a qualitative basis for odour and visual signs of contamination. Soil classifications and descriptions were based on Unified Soil Classification System (USCS) and Australian Standard (AS) 4482.1-2005. Bore logs are presented in **Appendix G**.
Field Observations (including visual and olfactory signs of potential contamination)	A summary of field observations compiled during intrusive investigations is provided on borehole logs in **Appendix G**. Field observations are summarised in **Section 8.1.2**.
Soil Sampling	▪ Soil samples were collected using a dry grab method (unused, dedicated nitrile gloves) & placed into laboratory-supplied, acid-washed, solvent-rinsed glass jars. ▪ Blind field duplicates were separated from the primary samples and placed into glass jars. ▪ A small amount of duplicate was collected from each soil samples and placed into zip-lock bag for Photo-ionisation Detector (PID) screening. ▪ A small amount of duplicate was separated from all fill samples and placed into a zip-lock bag for asbestos analysis.

Activity/Item	Details
Decontamination Procedures	Dedicated gloves were used for the collection of each sample. Sampling equipment (i.e. trowel and shovel) was decontaminated between uses by washing in a solution of potable water and Decon 90, and then rinsed with potable water.
Sample Preservation	Samples were stored in a refrigerated (ice-filled) chest, whilst on-site and in transit to the laboratory. All samples were submitted and analysed within the required holding period, as documented in laboratory reports discussed in a later section.
Management of Soil Cuttings	Soil cuttings were used as backfill for completed boreholes or disposed by driller to licensed landfill facility.
Quality Control & Laboratory Analysis	A number of soil samples were submitted for analysis of previously-identified COPC by SGS Laboratories (SGS). QA/QC testing comprised intra-laboratory duplicates ('field duplicates') tested blind by SGS and an inter-laboratory field duplicate tested blind by Envirolab Services (Envirolab). All samples were transported under strict Chain-of-Custody (COC) conditions and COC certificates and laboratory sample receipt documentation were provided to EI for confirmation purposes, as discussed in **Section 8**.
Soil Vapour Screening	All environmental borehole samples were screened in the field for head space VOCs using a calibrated photo-ionisation detector (PID). The sensor bulb used in the PID had an ionisation potential (IP) of 10.6 eV. The PID meter used for screening during the soil sampling works was calibrated by EI field staff prior to use. The calibration certificates are available on request

6.8 Groundwater Investigation

The groundwater investigation works conducted at the site are described in **Table 6-5**. Monitoring well locations are illustrated in **Figure 2**.

Table 6-5 Summary of Groundwater Investigation Methodology

Activity/Item	Details
Fieldwork	Groundwater monitoring wells were installed on 16 to 18 December 2019 and developed on 17 and 18 December 2019; whereas, water level gauging, well purging, field testing and groundwater sampling was conducted on 10 January 2020. Furthermore, an additional groundwater sampling was undertaken on the 3 September 2021. There has been no additional groundwater sampling since then.
Well Construction	Test bores were converted to groundwater monitoring wells as follows: ▪ One, 11.23 m deep, identified as BH1M; ▪ One, 10.2 m deep, identified as BH3M; ▪ One, 2.8m deep, identified as BH4M; and ▪ One, 9.7 m deep identified as BH9M. Drilled by Hanjin and Christie solid flight auger drill rig. Well construction details are tabulated in **Table 8-2** and documented in the bore logs presented in **Appendix G**. Wells BH1M, BH3M and BH9M were installed to screen the sandstone aquifer and were seated in sandstone bedrock. BH4M was installed to screen clayey sand aquifer. Well construction was in general accordance with the standards described in NUDLC, 2012 and involved the following: ▪ 50 mm, Class 18 uPVC, threaded, machine-slotted screen and casing, with slotted

Activity/Item	Details
	intervals in shallow wells set to screen to at least 500 mm above the standing water level to allow sampling of phase-separated hydrocarbon product, if present; ▪ Base and top of each well was sealed with a uPVC cap; ▪ Annular, graded sand filter was used to approximately 300 mm above top of screen interval; ▪ Granular bentonite was applied above annular filter to seal the screened interval; ▪ Drill cuttings were used to backfill the bore annulus to just below ground level; and ▪ Surface completion comprised a steel road box cover set in neat cement and finished flush with the concrete slab level.
Well Development	Well development was conducted on 17 and 18 December 2019. This involved agitation within the full length of the water column using a dedicated, HDPE, disposable bailer, followed by removal of water and accumulated sediment using a 12V, HDPE submersible bore pump (Proactive Environmental, model Super Twister). Pumping was continued until no further reduction in suspended sediment was observed (i.e. after removal of several well volumes).
Well Survey (Elevation and location)	Well elevations at ground level were extrapolated from the spot elevations marked on the survey plan provided by the client (**Figure 2**). Well elevations at ground level were extrapolated in metres relative to Australian Height Datum (mAHD).
Well Gauging & Groundwater Flow Direction	All monitoring wells were gauged for standing water level (SWL, depth to groundwater) prior to well purging at the commencement of the GME on 10 January 2020 and all measured SWLs are shown in **Table 8-2.** Based on the inferred direction of the aquifer, groundwater flow direction is assumed to be west.
Well Purging & Field Testing	No volatile organic odours were detected during any stage of well purging. Measurements of water quality parameters was conducted repeatedly during well purging and were recorded onto field data sheets (**Appendix H**) once water quality parameters stabilised. In all wells, groundwater was initially observed to be slightly grey/brown in colour with suspended sediments (SS). SS levels reduced as purging was continued. Field measurements for Dissolved Oxygen (DO), Electrical Conductivity (EC) and pH of the purged water were also recorded during well purging. Purged water volumes removed from each well and field test results are summarised in **Table 8-3**.
Groundwater sampling	Groundwater was sampled using a micro-purge system. Water was continuously measured for temperature, EC, Redox, DO and pH. Once three consecutive field measurements were recorded to within ± 10% for DO, ± 3% for EC, ± 0.2 for pH, ± 0.2° for temperature and ± 20 mV for Redox, this was considered to indicate that representative groundwater quality had been achieved and final physico-chemical measurements were recorded. Groundwater samples were then collected from the micro-purge sampling pump discharge point. Since the water column in BH4M is less than 0.5m, a dedicated, HDPE, disposable bailer was used for groundwater sampling.

Activity/Item	Details
Decontamination Procedure	▪ Decontamination was not required as sampling equipment was stored and transported prior to use in factory-sealed, plastic sleeves, while each bailer was dedicated to each individual well. ▪ All sample containers were supplied by the laboratory for the particular project and only opened once immediately prior to sampling. ▪ While ice was used to keep the samples cool, all melt water was continuously drained from the Esky to prevent cross-contamination of samples. ▪ The water level probe and water quality kit probes were washed in a solution of potable water and Decon 90 and then rinsed with potable water between measurements/wells.
Sample Preservation	Sample containers were supplied by the laboratory with the following preservatives: ▪ one, 1 litre amber glass, acid-washed and solvent-rinsed bottle; ▪ two, 40ml glass vials, pre-preserved with dilute hydrochloric acid, Teflon-sealed; and ▪ one, 250mL, HDPE bottle, pre-preserved with dilute nitric acid (1 mL). Samples for metals analysis were field-filtered using 0.45 µm pore-size filters. All containers were filled with sample to the brim then capped and stored in ice-filled chests, until completion of the fieldwork and during sample transit to the laboratory.
Quality Control & Laboratory Analysis	All groundwater samples were submitted for analysis of previously-identified chemicals of concern by SGS Laboratories (SGS). QA/QC testing comprised intra-laboratory duplicates ('field duplicates') tested blind by SGS and an inter-laboratory field duplicate tested blind by Envirolab Services (Envirolab). All samples were transported under strict Chain-of-Custody (COC) conditions and COC certificates and laboratory sample receipt documentation were provided to EI for confirmation purposes.
Sample Transport	After sampling, refrigerated sample chests were transported to SGS Australia Pty Ltd using strict Chain-of-Custody (COC) procedures. Inter-laboratory duplicate (ILD) samples were forwarded to Envirolab Services Pty Ltd (Envirolab) for QA/QC analysis. A Sample Receipt Advice (SRA) was provided by each laboratory to document sample condition upon receipt. Copies of SRA and COC certificates are presented in **Appendix I**.

7. Data Quality Assessment

The assessment of data quality is defined as the scientific and statistical evaluation of environmental data to determine if the data meets the objectives for the project (US EPA, 2006). Data quality assessment included an evaluation of the compliance of the field sampling, field and laboratory duplicates and laboratory analytical procedures and an assessment of the accuracy and precision of these data from the laboratory quality control measurements. The findings of the data quality assessment in relation to the current investigation at the site are discussed in detail in **Appendix L**.

The QC measures generated from the field sampling and laboratory analytical program are summarised in **Table 7-1**:

Table 7-1 Quality Control Process

Data Quality	Control	Conformance [Yes, Part, No]	Report Sections
Preliminaries	Data Quality Objectives established	Yes	See DQO/DQI
Field work	Suitable documentation of fieldwork observations including borehole logs, sample register, field notes, calibration forms	Yes	See Appendices
Sampling Plan	Use of relevant and appropriate sampling plan (density, type, and location)	Part	See Section 5.7. Additional soil sampling will be required at the proposed landscape area as discussed in Section 5.7.
	All media sampled and duplicates collected	Part	Soil vapour not assessed in this stage of works
	Use of approved and appropriate sampling methods (soil, groundwater, air quality)	Yes	See methodology
	Selection of soil samples according to field PID readings (where VOCs are present)	Yes	See methodology
	Preservation and storage of samples upon collection and during transport to the laboratory	Yes	See methodology
	Appropriate Rinsate, Field and Trip Blanks taken	Yes	See methodology
	Completed field and analytical laboratory sample COC procedures and documentation	Yes	See laboratory reports
Laboratory	Sample holding times within acceptable limits	Yes	See laboratory QA
	Use of appropriate analytical procedures and NATA-accredited laboratories	Yes	See laboratory report

Data Quality	Control	Conformance [Yes, Part, No]	Report Sections
	LOR/PQL low enough to meet adopted criteria	Yes	See laboratory appendix
	Laboratory blanks	Yes	See laboratory QA/QC
	Laboratory duplicates	Yes	See laboratory QA/QC
	Matrix spike/matrix spike duplicates (MS/MSDs)	Yes	See laboratory QA/QC
	Surrogates (or System Monitoring Compounds)	Yes	See laboratory QA/QC
	Analytical results for replicated samples, including field and laboratory duplicates and inter-laboratory duplicates, expressed as Relative Percentage Difference (RPD)	Yes	See QA Tables **Appendix L**
	Checking for the occurrence of apparently unusual or anomalous results, e.g. laboratory results that appear to be inconsistent with field observations or measurements	Yes	See **Appendix L**.
Reporting	Report reviewed by senior staff to assess project meets desired quality, EPA guidelines and project outcomes.	Yes	See document control

7.1 Quality Overview

On the basis of the field and analytical data validation procedure employed, the overall quality of the analytical data produced for the site was considered to be of an acceptable standard for interpretive use and preparation of a conceptual site model (CSM).

8. Results

8.1 Soil Investigation Results

8.1.1 Site Geology and Subsurface Conditions

The general site geology encountered during the drilling of the soil investigation boreholes, installation of monitoring wells may be described as a layer of anthropogenic filling overlying sandy clay and clayey sand, with sandstone at depth. The geological information obtained during the investigation is summarised in **Table 8-1** and borehole logs from these works are presented in **Appendix G**.

Table 8-1 Generalised Subsurface Profile

Layer	Description	Depth to top & bottom of layer (mBGL)
Concrete	-	0-0.2
Fill	Sandy GRAVEL; fine to coarse grained and angular to sub-angular, grey, with fine to coarse grained sand, no odour. Gravelly SAND; fine to coarse grained, pale grey-grey, with fine to coarse grained and angular to sub-angular gravels, no odour.	0.2-1.5
Natural	Clayey SAND; fine to medium grained, brown and red brown, no odour.	1.5-3.5
Bedrock	SANDSTONE; fine to medium grained, distinctly weathered sandstone.	11.2 +

Note 1 + Termination depth of borehole

The underlying sandstone was also cored as part of the geotechnical investigation and further comments on rock quality can be viewed in the separate geotechnical report.

8.1.2 Field Observations and PID Results

Soil samples were obtained from the test bores at various depths ranging between 0.0 m to 2.7 mBGL. All examined soil samples were evaluated on a qualitative basis for odour and visual signs of contamination (e.g. hydrocarbon odours, oil staining, petrochemical filming, asbestos fragments, ash, charcoal) and the following observations were noted:

- Ash and slags were noted at borehole locations (BH1M, BH4M, BH5, BH6, BH14 to BH17) investigated during this assessment in fill soils ;
- Slightly hydrocarbon odour was noted at borehole BH1M;
- Fibrous cement sheeting, was not observed in examined fill soils; and
- Low PID readings (<30ppm) were recorded for the in-field, soil headspace samples.

8.2 Groundwater Investigation Results

8.2.1 Monitoring Well Construction

Four groundwater monitoring wells were installed onsite. Well construction details for the installed groundwater monitoring wells are summarised in **Table 8-2**.

Table 8-2 Monitoring Well Construction Details

Well ID	Bore Depth (mBGL)	RL (GL)	RL (TOC)	Screen Interval (mBGL)	Lithology Screened
BH1M	11.2	9.82	9.70	4.2-11.2	Sandstone
BH3M	10.2	7.66	7.58	4.2-10.2	Sandstone
BH4M	2.8	8.75	8.62	1.8-2.8	Clayey Sand
BH9M	9.7	11	10.84	3.7-9.7	Sandstone

Note 1 mBGL - metres below ground level.
Note 2 RL - Reduced Level – Estimated from Survey Plan in elevation in metres relative to Australian Height Datum (mAHD).
Note 3 TOC - top of well casing.
Note 4 RL (TOC) - Surveyed elevation at TOC in mAHD.

8.2.2 Field Observations and Water Test Results

Two GME was conducted on all wells in 10 January 2020 and 3 September 2021. On 10 January 2020, standing water levels (SWLs) were measured within each well prior to well purging, the results of which were recorded with well purge volumes and field-based water test results. A summary of the recorded field data is presented in **Table 8-3** and copies of the completed Field Data Sheets are included in **Appendix H**.

Table 8-3 Groundwater Field Data

Well ID	SWL (mBTOC)	RL (TOC)	WL (mAHD)	Purge Volume (L)	DO (mg/L)	Field pH	Field EC (µS/cm)	Temp (°C)	Redox (mV)	Odours / Turbidity
BH1M	2.93	9.70	6.77	3.5	0.43	4.78	350	23.37	125.8	No/Slight to moderate
BH3M	3.2	7.58	4.38	2.5	1.18	4.41	575	21.63	145	No/ Moderate
BH4M	1.88	8.62	6.74	0.5	1.08	5.78	531	24.56	72.3	-/ Moderate
BH9M	4.17	10.84	6.67	3.0	1.69	4.75	347	20.76	124.6	No/ Moderate

Note 1 GME – Groundwater monitoring event.
Note 2 SWL – Standing Water Levels as measured from TOC (top of well casing) prior to groundwater sampling.
Note 3 m BTOC – metres below top of well casing.
Note 4 RL (TOC) – Reduced Level, elevation at TOC in metres relative to Australian Height Datum (m AHD).
Note 5 † WL = Calculated groundwater level, in m AHD (calculated as RL – SWL) Note: these values were used for groundwater contouring analysis.
Note 6 L – litres (referring to volume of water purged from the well prior to groundwater sample collection).
Note 7 EC – groundwater electrical conductivity as measured onsite using portable EC meter.
Note 8 µS/cm – micro Siemens per centimetre (EC units).
Note 9 DO – Dissolved Oxygen in units of milligrams per litre (mg/L)
Note 10 All groundwater parameters (pH, EC and DO) were tested on site.
Note 11 Due to less than 0.5m water column was identified in monitoring well BH4M. only one reading was taken prior to groundwater sampling.

With reference to **Table 8-3**, the field pH data indicated that the groundwater was acidic (pH ranged from 4.41 to 5.78). Electrical Conductivity (EC) measurements were recorded in the

range 347 to 575 µS/cm indicating that the groundwater was fresh to marginal in terms of water salinity.

8.3 Laboratory Analytical Results

8.3.1 Soil Analytical Results

A summary of laboratory results showing test sample quantities, minimum/maximum analyte concentrations and samples found to exceed the SILs, is presented in **Table 8-4**. More detailed tabulations of results showing the tested concentrations for individual samples alongside the adopted soil criteria are presented in **Tables T1** at the end of this report. Completed documentation used to track soil sample movements and laboratory receipt (i.e. COC and SRA forms) are copied in **Appendix I** and all laboratory analytical reports for tested soil samples are presented in **Appendix J**.

Table 8-4 Summary of Soil Analytical Results

No. of primary samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Sample locations exceeding investigation levels
Hydrocarbons				
24	Benzene	<0.1	<0.1	None
24	Toluene	<0.1	0.1	None
24	Ethyl benzene	<0.1	0.4	None
24	Total xylenes	<0.3	0.8	None
24	Benzo(a)pyrene	<0.1	4	None
24	Carcinogenic PAHs ((as B(α)P TEQ)	<0.3	5.8	BH14_0.4-0.5
24	F1	<25	<25	None
24	F2	<25	110	BH1M_0.8-0.9
24	F3	<90	310	None
24	F4	<120	<120	None
OCPs				
15	Total OCPs	<PQL	<PQL	None
OPPs				
15	Total OPPs	<PQL	<PQL	None
Heavy Metal				
24	Arsenic	<1	10	None
24	Cadmium	<0.3	0.4	None
24	Chromium (Total)	1.7	68	None
24	Copper	<0.5	100	None
24	Lead	1	2500	BH15_0.4-0.5
24	Mercury	<0.05	6.7	None

No. of primary samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Sample locations exceeding investigation levels
24	Nickel	<0.5	42	None
24	Zinc	2.8	1000	None
PCBs				
15	Total PCBs	<1	<1	None
VOCs				
23	VOCs	<PQL	<PQL	None
Asbestos				
15	Asbestos	No asbestos detected	Asbestos detected	BH9a_0.5-0.7

8.3.2 Groundwater Analytical Results

Laboratory analytical results for groundwater samples are summarised in **Table 8-5**, which also include the adopted GILs. Completed documentation used to track groundwater sample movements and laboratory receipt (COC and SRA forms) are copied in **Appendix I**. Copies of the laboratory analytical reports are attached in **Appendix J**.

Table 8-5 Summary of Groundwater Analytical Results

No. of primary samples	Analyte	Min. Conc. (µg/L)	Max. Conc. (µg/L)	Sample locations exceeding investigation levels (Sample ID and Sample Date)
Metals				
2	Al	49	66	BH3M-1 & BH9M-1 (2021)
6	As	<1	2	None
6	Cd	<0.1	<0.1	None
6	Cr	<1	1	None
6	Cu	<1	1	None
6	Pb	<1	<1	None
6	Hg	<0.1	0.1	None
6	Ni	3	8	BH3M-1 (2020)
6	Zn	9	50	BH3M-1; BH9M-1 (2020)
PAHs				
6	Total PAHs	<1	640	None
6	Benzo(α)pyrene	<0.1	56	BH4M-1 (2020), ND in 2021

No. of primary samples	Analyte	Min. Conc. (µg/L)	Max. Conc. (µg/L)	Sample locations exceeding investigation levels (Sample ID and Sample Date)
6	Naphthalene	<0.1	1.3	None
BTEX				
6	Benzene	<0.5	0.6	None
6	Toluene	<0.5	5.2	None
6	Ethylbenzene	<0.5	0.6	None
6	o-xylene	<0.5	1.2	None
6	m/p-xylene	<1	2	None
TRHs				
6	F1	<50	<50	None
6	F2	<60	57000	BH1M-1; BH4M-1; BH9M-1 (2020), ND in 2021
6	F3	<500	4800	BH4M-1; BH9M-1 (2020), ND in 2021
6	F4	<500	2000	BH4M-1; BH9M-1 (2020), ND in 2021
Phenols				
6	Phenols	<10	30	None
VOCs				
6	VOCs	ND	ND	None
Cyanide				
2	Total Cyanide	ND	ND	None

9. Site Characterisation

9.1 Review of Conceptual Site Model

On the basis of investigation findings, the CSM discussed in **Section 5** was considered to appropriately identify contamination sources, migration mechanisms and exposure pathways, as well as potential onsite and offsite receptors. Previously known data gaps, as outlined in **Section 5.7** have largely been addressed; however, the following remaining data gaps may require further assessment:

- The quality of soil beneath existing structures of the site. The internal parts of the warehouse were occupied by a series of metal framed and clad private storage units which covered a large percentage of the floor space and were not accessible during this investigation. The area under the private storage units could not be inspected or assessed. Considering the historical use of the site (machine tools manufacturing) and the lack of information of locations of previous major machine operation plans, additional sampling locations are required to assess to soil quality beneath the concrete slab;
- Groundwater quality immediately hydraulically down-gradient of the adjacent property (69 Allen street, Leichhardt). It is noted that this building was used as an industrial factory from pre-1930 and was re-developed into residential properties until 1990s. Due to the lack of information of the use of this property, the impact of the historical industrial operations of this factory building to the site is unknown.

9.2 Soil Characterisation

The general site geology observed during the investigation, included:

- Anthropogenic gravelly sand fill to a maximum depth of 2.9 mBGL;
- Natural alluvial sand was identified beneath the fill layer and extended to a maximum depth of 3.5 mBGL; and
- Bedrock sandstone was encountered at depths ranged from 0.3-3.5 mBGL.

With reference to **Section 8.3.1**, analytical results of soil samples collected from fill soils and deeper natural sands were below the adopted criteria with the exception of the following:

- Concentration of lead (2500 mg/kg) in sample BH15_0.4-0.5 was above the health-based criteria;
- Concentration of TRH F2 (240mg/kg) in sample BH1M_0.8-0.9 exceeded HSL A & B for low to high density residential exposure
- Concentration of PAH as Carcinogenic PAHs (5.8mg/kg) in sample BH14_0.4-0.5 exceeded HIL B for residential exposure settings; and
- Asbestos was identified in sample BH9a_0.5-0.7.

9.3 Groundwater Characterisation

In January 2020, a total of four groundwater monitoring wells (BH1M, BH3M, BH4M and BH9M) were installed in accessible locations at the site during the DSI. A second groundwater sampling event was carried out during September 2021, a total of two groundwater monitoring wells

(BH3M and BH9M) were sampled. The locations of the monitoring wells are presented in **Figure 2** and a detailed construction of the monitoring wells is presented in **Appendix G**.

Groundwater was encountered at depth at 1.6 meters below ground level during drilling at one location (BH4M), and standing water level was encountered at depths ranging from 2.01 to 3.28 mBGL during GME. Based on the depth to groundwater, EI consider the proposed excavations to approximately 6.5mBGL for the two-level basement will intercept groundwater.

With reference to **Section 8.3.2**, analytical results of groundwater samples collected during a single GME were below the adopted criteria with the exception of the following:

- Heavy metals (Aluminium, nickel and zinc) were detected above the adopted criteria, however concentrations were considered to be representative of background groundwater quality entering the site from the south.
- Monitoring well BH1M reported concentrations of F2 (910µg/L), and monitoring well BH4M reported concentrations of F2 (330 µg/L), F3 (4600µg/L) and F4 (2000µg/L), BH9M reported concentrations of F2 (57000 µg/L), F3 (4800µg/L) and F4 (1800µg/L), exceeding the ANZG (2018) criteria. Resampling in 2021 did not detect any dissolved hydrocarbons; and
- Monitoring well BH4M reported concentrations of benzo(a)pyrene (56 µg/L) exceeding the ANZG (2018) criteria. The 2021 sampling did not detect B(a)P in the groundwater.

10. Conclusions

The property located at 40-76 William St, Leichhardt NSW was the subject of a Detailed Site Investigation that was conducted in order to assess the nature and degree of on-site contamination associated with current and former uses of the property. Based on the findings of this assessment it was concluded that:

- The site was free of statutory notices issued by the EPA;
- Based on land title history of the site and aerials photos, the allotment known as 40-76 William Street, Leichhardt appears to have been used for John Heine Site (machine tools manufacturing) from pre-1914 until 1952 and then became Cyclops Toys until 1980s. From 1980 onwards, it was mainly been used as storage warehouse.
- Soil sampling and analysis were conducted at 17 targeted test bore locations (BH1 – BH17) across the site down to a maximum depth of 11.23 mBGL. Sampling regime was considered to be appropriate for preliminary investigation purposes and comprised judgemental and systematic (triangular grid) sampling patterns, with allowance for structural obstacles (e.g. building walls, underground and overhanging services and other physical obstructions in use by existing operating businesses);
- The sub-surface layers comprised of fill materials of various constituents, comprising dark brown to brown silty and alluvial sands, underlain by yellow-brown sandy clay and Sandstone;
- Groundwater was encountered at depth at 1.6 meters below ground level during drilling at one location (BH4M), and standing water level was encountered at depths ranging from 2.01 to 3.28 mBGL during GME;
- Results of soil samples collected from soil test boreholes BH1 to BH17 reported concentrations of the screened heavy metals, PAHs, BTEX, TRH, OCP/OPP/PCBs and asbestos to be below the adopted human health and ecological based SILs, with the exception of:
  - Concentration of lead (2500mg/kg) in sample BH15_0.4-0.5 exceeded the HIL B for residential exposure settings;
  - Concentration of TRH F2 (240mg/kg) in sample BH1M_0.8-0.9 exceeded HSL A & B for low to high density residential exposure
  - Concentration of PAH pf Carcinogenic PAHs in sample BH14_0.4-0.5 exceeded HIL B for residential exposure settings; and
  - Asbestos was identified in sample BH9a_0.5-0.7.
- Results of groundwater samples collected from groundwater monitor wells BH1M, BH3M, BH4M and BH9M reported concentrations of the heavy metals, Cyanide, PAHs, BTEX, Phenols, TRH, VOCs, to be below the adopted GILs, with the exception of:
  - Monitoring well BH3M reported concentrations of <6.5 pH units for aluminium (49 µg/L), nickel (8 µg/L), and zinc (50 µg/L), and monitoring well BH9M reported concentrations of zinc (43 µg/L) exceeding the ANZG (2018) criteria;

- Monitoring well BH9M reported concentrations of <6.5 pH units for aluminium (66 µg/L) exceeding the ANZG (2018) criteria;
- Monitoring well BH1M reported concentrations of F1 (910µg/L), and monitoring well BH4M reported concentrations of F2 (330 µg/L), F3 (4600µg/L), and F4 (2000µg/L), BH9M reported concentrations of F2 (57000 µg/L), F3 (4800µg/L), and F4 (1800µg/L) exceeding the ANZG (2018) criteria. Hydrocarbons were not detected in 2021;
- Monitoring well BH4M reported concentrations of benzo(a)pyrene (56 µg/L) exceeding the ANZG (2018) criteria. B(a)P was not detected in 2021.

- On review of the Conceptual Site Model (CSM) developed as part of this DSI, it was concluded that the model remains valid for the proposed development, however the following data gap remains:
  - The source of TRH (on and/or offsite) in groundwater identified during the investigation;
  - The groundwater quality immediately hydraulically down-gradient to the previous large factory building (69 Allen Street, Leichhardt); and
  - The quality of soil beneath buildings – large percentage of floor space not accessible during this investigation.

Based on the findings from this DSI conducted in accordance with the investigation scope agreed with the Client, and with consideration of the Statement of Limitations, EI conclude that widespread contamination was not identified at the site. While EI did not identify any contamination that would preclude the site from being developed for the proposed land use, it is recommended that a remediation action plan (RAP) be developed to consider the identified groundwater contamination and data gaps.

In view of the proposed development scope, and currently available information, EI consider that the site can be made suitable for the proposed residential use, provided the recommendations outlined in **Section 11** are implemented.

EI considers that the site contamination issues can be managed through the development application process in accordance with the *State Environmental Planning Policy (Resilience and Hazards) 2021– Remediation of Land*, with the requirements for remediation and validation incorporated into conditions of development consent.

11. Recommendations

In view of the above findings and in accordance with the NEPM 2013 guidelines, it is considered that the site can be made suitable for the proposed residential development on completion of the following recommendations:

- Prior to any site demolition, carry out a Hazardous Materials Survey for the existing structures on-site to identify potentially hazardous building products that may get released into the environment during demolition, in order to protect site personnel and to inform the implementation of special waste management measures (if necessary);

NOTE: As per Section 3.1, a Hazardous Materials Survey has since been conducted in 2020 (EI ref, E24470.E10_RevB, dated 4 August 2020).

- Preparation and implementation of a Remedial Action Plan (RAP), which should:
  - Design an additional intrusive investigation to close the data gaps identified during this investigation, which should be done following demolition or current tenants (storage units) vacating the premise;
  - Outline the remediation requirements for contamination identified during this DSI and other contamination that may be identified during data gap closure investigations;
  - Provide the requirements and procedure for waste classification assessment, in order to enable classification of site soils to be excavated and disposed off-site during the proposed basement excavation, in accordance with the *Waste Classification Guidelines* (EPA, 2014); and
  - Provide a SAQP for the validation of remediation activities performed on-site.

NOTE: As per Section 3.1, a Remediation Action Plan has since been conducted in 2022 (EI Ref. E24470.E06_Rev4, dated 4 March 2022).

- Undertake supplementary investigations, and subsequent remediation and validation works for the site, as outlined in the RAP. EI note that due to current site constrains, the additional investigations and remediation works may be conducted after site demolition when access to areas of environmental concern is made available.
- Preparation of a final site validation report by a suitably qualified environmental consultant, certifying site suitability of soils and groundwater for the proposed land use.

12. Statement of Limitations

The findings presented in this report are the result of discrete and specific sampling methodologies used in accordance with best industry practices and standards. Due to the site-specific nature of soil sampling from point locations, it is considered likely that all variations in subsurface conditions across a site cannot be fully defined, no matter how comprehensive the field investigation program.

While normal assessments of data reliability have been made, EI assumes no responsibility or liability for errors in any data obtained from previous assessments conducted on site, regulatory agencies (e.g. NSW Department of Planning, Housing and Infrastructure, NSW EPA), statements from sources outside of EI, or developments resulting from situations outside the scope of works of this project.

Despite all reasonable care and diligence, the ground conditions encountered and concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated. In addition, site characteristics may change at any time in response to variations in natural conditions, chemical reactions and other events, e.g. groundwater movement and or spillages of contaminating substances. These changes may occur subsequent to EI's investigations and assessment.

EI's assessment is necessarily based upon the result of the site investigation and the restricted program of surface and subsurface sampling, screening and chemical testing which was set out in the proposal. Neither EI, nor any other reputable consultant, can provide unqualified warranties nor does EI assume any liability for site conditions not observed or accessible during the time of the investigations.

This report was prepared for Anprisa Pty Ltdand no responsibility is accepted for use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice.

This report and associated documents remain the property of EI subject to payment of all fees due for this assessment. The report shall not be reproduced except in full and with prior written permission by EI.

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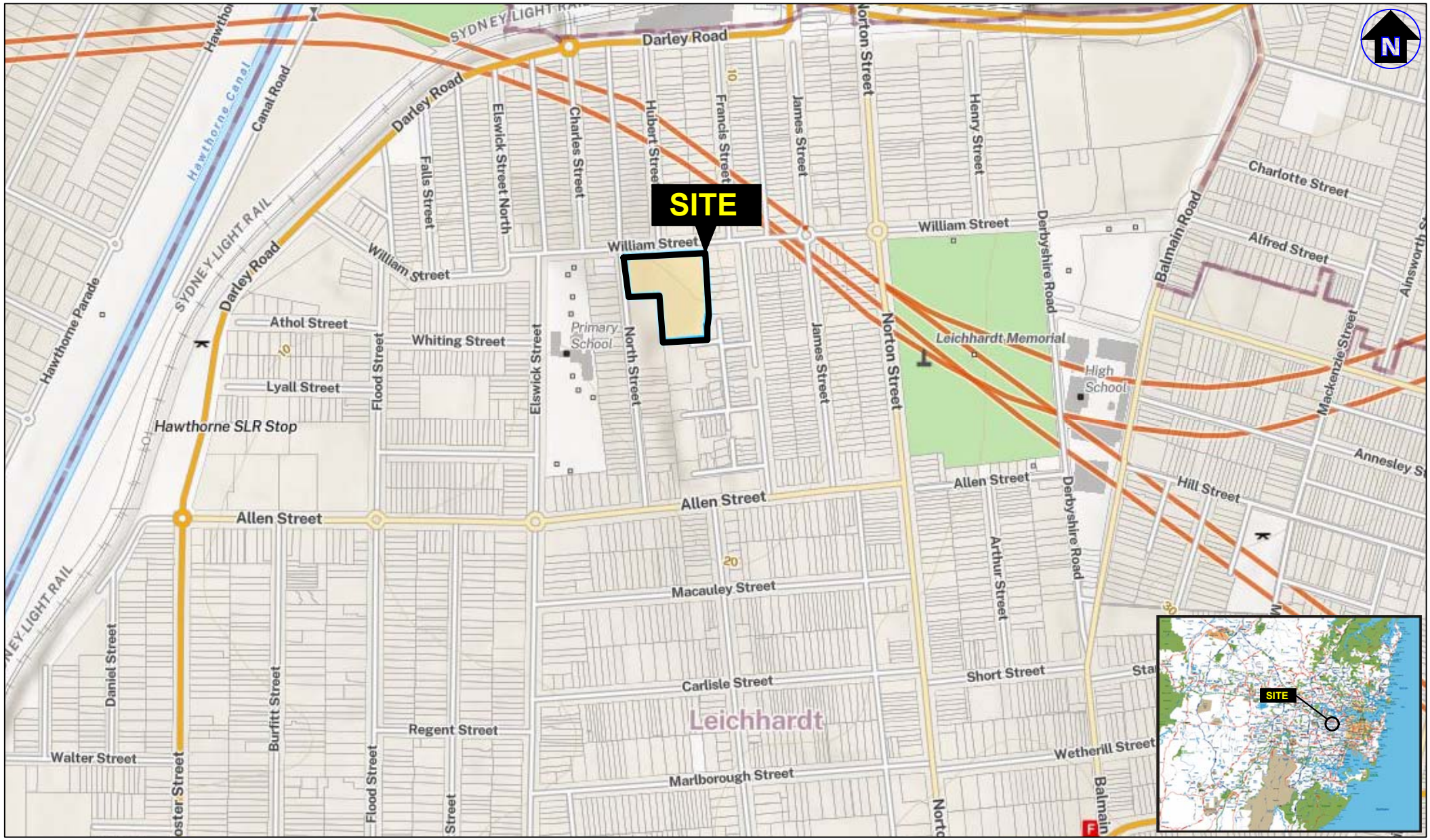
Abbreviations

ACM	Asbestos-containing materials
ASS	Acid sulfate soils
ANZECC	Australian and New Zealand Environment Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
B(a)P	Benzo(a)Pyrene (a PAH compound), - B(a)P TEQ Toxicity Equivalent Quotient
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
COC	Chain of Custody
DEC	Department of Environment and Conservation, NSW (see OEH)
DECC	Department of Environment and Climate Change, NSW (see OEH)
DECCW	Department of Environment, Climate Change and Water, NSW (see OEH)
DA	Development Application
DO	Dissolved Oxygen
DP	Deposited Plan
EC	Electrical Conductivity
Eh	Redox potential
EPA	Environment Protection Authority NSW
EMP	Environmental Management Plan
F1	TRH C_6 – C_{10} less the sum of BTEX concentrations (Ref. NEPM 2013, Schedule B1)
F2	TRH >C_{10} – C_{16} less the concentration of naphthalene (Ref. NEPM 2013, Schedule B1)
GIL	Groundwater Investigation Level
GME	Groundwater Monitoring Event
HIL	Health-based Investigation Level
HSL	Health-based Screening Level
km	Kilometres
EIL	Ecological Investigation Level
ESL	Ecological Screening Level
m	Metres
m AHD	Metres Australian Height Datum
m BGL	Metres Below Ground Level
mg/L	Milligrams per litre
µg/L	Micrograms per litre
mV	Millivolts
MW	Monitoring well
NATA	National Association of Testing Authorities, Australia
NEPC	National Environmental Protection Council
NSW	New South Wales
OEH	Office of Environment and Heritage, NSW (formerly DEC, DECC, DECCW)
PAHs	Polycyclic Aromatic Hydrocarbons
pH	Measure of the acidity or basicity of an aqueous solution
PSH	Phase-separated hydrocarbons (also referred to as LNAPL)
PQL	Practical Quantitation Limit (limit of detection for respective laboratory instruments)
QA/QC	Quality Assurance / Quality Control
SRA	Sample receipt advice (document confirming laboratory receipt of samples)
SWL	Standing Water Level
TCLP	Toxicity Characteristics Leaching Procedure
TPH	Total Petroleum Hydrocarbons (superseded term equivalent to TRH)
TRH	Total Recoverable Hydrocarbons (non-specific analysis of organic compounds)
UCL	Upper Confidence Limit of the mean
UPSS	Underground Petroleum Storage System
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds (specific organic compounds which are volatile)

Appendix A - Figures



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Approved:	-
Date:	29-08-25
Scale:	Not To Scale

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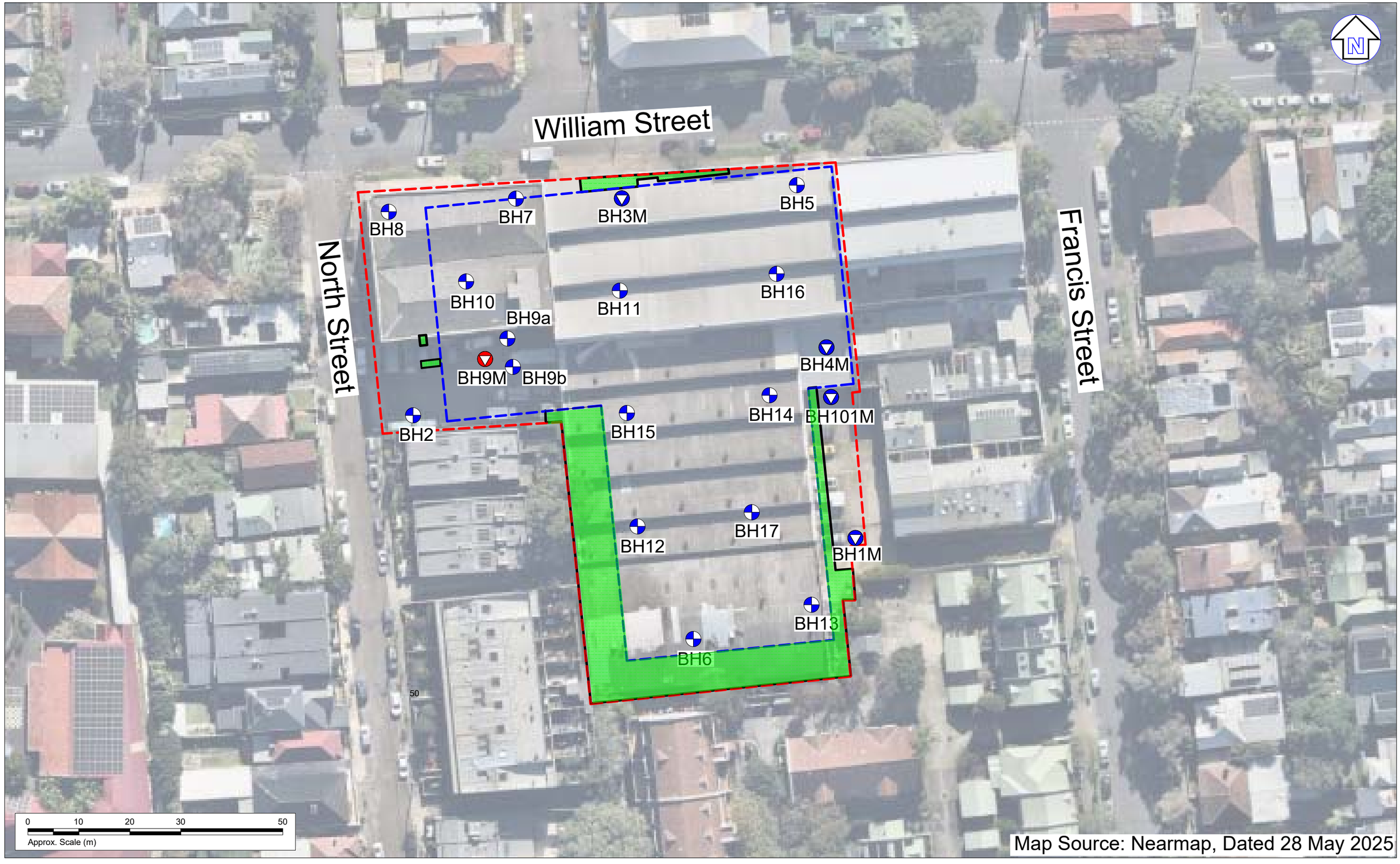
Detailed Site Investigation
40-76 William Street, Leichhardt
NSW Site Locality Plan

Figure:
1

Project: E24470.E02



LEGEND (All Locations are Approximate)

- Site boundary
- Basement boundary
- Borehole location
- Monitoring well location
- No soil samples, only well installed - see Section 7.2 of report
- Proposed landscape area

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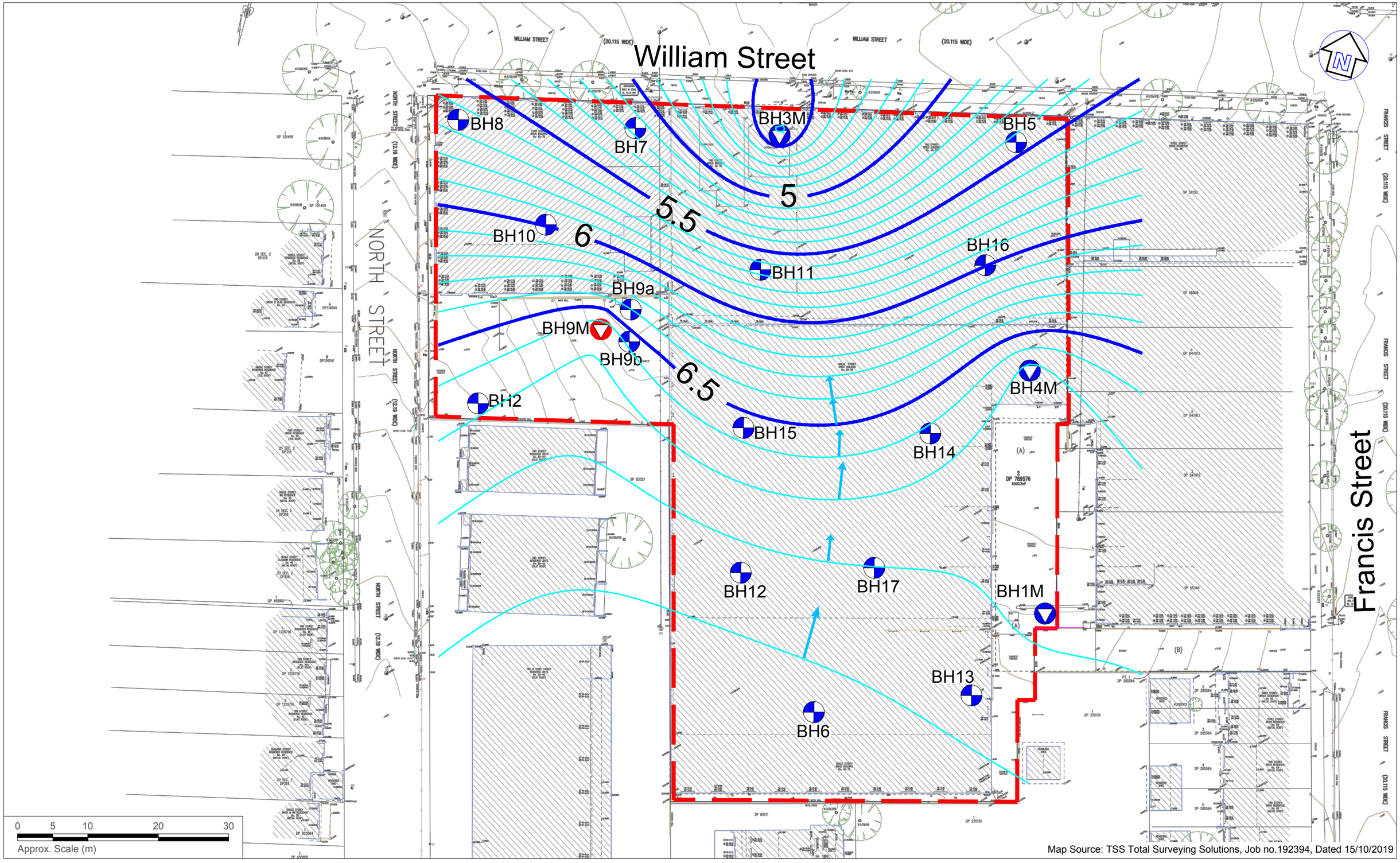
Sampling Location Plan

Figure: 2

Project: E24470.E02_Rev7



LEGEND

- Approximate site boundary
- Approximate borehole location (Sampled in 2020)
- Approximate borehole / monitoring well location (Sampled in 2020)
- Inferred groundwater level contours (mAHD)
- Approximate groundwater flow direction

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Groundwater Contour Plan

Figure: 3

Project: E24470 E02

Appendix B - Tables

Table T1 - Summary of Soil Analytical results

Sample ID	Date	Location	Heavy Metals										PAHs					BTEX				TRH				Pesticides		Total PCBs	VOCs	Asbestos
			As	Cd	Cr	Cu	Pb	TCLP Pb (mg/L)	Hg	TCLP Hg (mg/L)	Ni	Zn	Carcinogenic PAHs (as B(a)P TEQ)	Benzo(a)pyrene	TCLP Benzo(a)pyrene	Total PAHs	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes	F1	F2	F3	F4	OCPs	OPPs			Presence / absence
Fill																														
BH1M_0.8-0.9	16/12/2019	Building Footprint (HIL B/HSLA&B)	7	<0.3	29	100	110	N.A.	0.35	N.A.	34	150	<0.3	<0.1	N.A.	3	1.4	<0.1	0.1	0.4	0.8	<25	240	300	<120	<1	<1.7	<1	ND	No
BH2_0.3-0.4		Building Footprint (HIL B/HSLA&B)	<1	<0.3	29	73	3	N.A.	<0.05	N.A.	30	40	<0.3	<0.1	N.A.	<0.8	0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	No
BH2_0.9-1.0		Building Footprint (HIL B/HSLA&B)	3	<0.3	27	34	110	N.A.	0.08	N.A.	22	180	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	No
BH3M_0.3-0.4	18/12/2019	Basement Footprint (HIL B/HSL D)	1	<0.3	1.7	1.2	7	N.A.	<0.05	N.A.	0.6	5.7	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	No
BH4M_0.8-0.9		Building Footprint (HIL B/HSLA&B)	3	<0.3	12	79	84	N.A.	0.35	N.A.	4.1	37	1.5	1	N.A.	9.9	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	N.A.	No
BH5_0.3-0.4	16/12/2019	Basement Footprint (HIL B/HSL D)	10	0.4	17	66	71	N.A.	<0.05	N.A.	42	60	0.8	0.5	N.A.	3.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	No
BH6_0.4-0.5		Basement Footprint (HIL B/HSL D)	2	<0.3	11	2.9	14	N.A.	6.70	<0.0001	1	120	5.7	4	<0.0001	46	0.2	<0.1	<0.1	<0.1	<0.3	<25	<25	140	<120	<1	<1.7	<1	ND	No
BH9a_0.5-0.7	17/12/2019	Landscape Area (HIL B/ HSL A&B/EIL/ESL)	4	<0.3	13	25	95	N.A.	<0.05	N.A.	1.9	100	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	Yes
BH10_0.3-0.4		Building Footprint (HIL B/HSLA&B)	6	<0.3	2.8	<0.5	1	N.A.	<0.05	N.A.	1.2	3.6	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	No
BH12_0.3-0.4		Basement Footprint (HIL B/HSL D)	4	<0.3	4.5	1.9	8	N.A.	<0.05	N.A.	7.2	13	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	No
BH14_0.4-0.5	18/12/2019	Basement Footprint (HIL B/HSL D)	5	<0.3	12	52	230	0.03	0.36	N.A.	14	87	5.8	4	<0.0001	48	0.3	<0.1	<0.1	<0.1	<0.3	<25	<25	310	<120	<1	<1.7	<1	ND	No
BH15_0.4-0.5		Basement Footprint (HIL B/HSL D)	8	0.4	68	74	2500	7.8	0.10	N.A.	14	1000	1.9	1.4	N.A.	14	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<1	<1.7	<1	ND	No
BH16_0.4-0.5		Basement Footprint (HIL B/HSL D)	5	<0.3	16	20	110	N.A.	0.13	N.A.	3.8	54	1	0.7	N.A.	6.7	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	120	<120	<1	<1.7	<1	ND	No
BH17_0.4-0.5		Basement Footprint (HIL B/HSL D)	6	<0.3	20	60	130	N.A.	0.19	N.A.	20	290	0.9	0.6	N.A.	7.1	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	150	<120	<1	<1.7	<1	ND	No
Natural																														
BH1M_2.0-2.2	16/12/2019	Building Footprint (HIL B/HSLA&B)	4	<0.3	13	42	110	N.A.	0.2	N.A.	14	130	0.4	0.2	N.A.	2.5	0.2	<0.1	<0.1	<0.1	<0.3	<25	68	<90	<120	<1	<1.7	<1	ND	No
BH4M_2.0-2.1	18/12/2019	Building Footprint (HIL B/HSLA&B)	5	<0.3	9.1	17	35	N.A.	0.05	N.A.	1	37	2.3	1.7	<0.0001	17	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
BH6_0.6-0.7		Basement Footprint (HIL B/HSL D)	1	<0.3	10	2.8	13	N.A.	0.06	N.A.	0.9	110	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
BH7_0.3-0.4	16/12/2019	Building Footprint (HIL B/HSLA&B)	2	<0.3	5.2	2.5	29	N.A.	<0.05	N.A.	1.3	34	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
BH8_0.3-0.4		Building Footprint (HIL B/HSLA&B)	5	<0.3	4.4	1.4	3	N.A.	<0.05	N.A.	11	8.7	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
BH11_0.2-0.3	17/12/2019	Basement Footprint (HIL B/HSL D)	3	<0.3	5.8	1.7	8	N.A.	<0.05	N.A.	36	26	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
BH13_0.3-0.4	18/12/2019	Basement Footprint (HIL B/HSL D)	<1	<0.3	2.3	1	4	N.A.	0.64	N.A.	7.6	2.8	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
BH14_0.9-1.0		Basement Footprint (HIL B/HSL D)	5	<0.3	11	44	270	0.06	0.23	N.A.	7.1	150	0.5	0.3	N.A.	2.4	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	130	<120	N.A.	N.A.	N.A.	ND	N.A.
BH15_0.9-1.0	18/12/2019	Basement Footprint (HIL B/HSL D)	1	<0.3	17	1.5	67	N.A.	<0.05	N.A.	0.9	28	<0.3	<0.1	N.A.	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
BH17_2.0-2.1		Basement Footprint (HIL B/HSL D)	4	<0.3	11	3.6	12	N.A.	<0.05	N.A.	<0.5	9.9	0.5	0.3	N.A.	3	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	N.A.	N.A.	N.A.	ND	N.A.
Statistical Analysis																														
Maximum concentration			10	0.4	68	100	2500	7.8	6.7	<0.0001	42	1000	5.8	4	<0.0001	48	1.4	<0.1	0.1	0.4	0.8	<25	240	310	<120	<1	<1.7	<1	<PQL	Yes
95% UCL concentrations - Fill Samples Only			NC	NC	NC	58.23	1980	NC	NC	NC	NC	339	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	107.3	107.3	NC	NC	NC	NC	NC	NC
SILs																														
HIL B - Residential			500	150	500 Cr(VI)	30,000	1,200		120		1,200	60,000	4			400										600		1		
HIL C - Recreational/Open Space			300	90	300 Cr(VI)	17,000	600		80		1,200	30,000	3			300										400		1		
HSL A & B - Low to high density residential Soil texture classification – Sand [1]		Source depths (0 m to <1 m. BGL)															3	0.5	160	55	40	45	110							
		Source depths (1 m to <2 m. BGL)															NL	0.5	220	NL	60	70	240							
		Source depths (2m to <4 m. BGL)															NL	0.5	310	NL	95	110	440							
		Source depths (4 m+)															NL	0.5	540	NL	170	200	NL							
HSL C - Recreational/Open space Soil texture classification –Sand [1]		Source depths (0 m to <1 m. BGL)															NL	NL	NL	NL	NL	NL	NL							
		Source depths (1 m to <2 m. BGL)															NL	NL	NL	NL	NL	NL	NL							
		Source depths (2m to <4 m. BGL)															NL	NL	NL	NL	NL	NL	NL							
		Source depths (4 m+)															NL	NL	NL	NL	NL	NL	NL							
HSL D - Commercial / Industrial Soil texture classification – Sand [1]		Source depths (0 m to <1 m. BGL)															NL	3	NL	NL	230	260	NL							
		Source depths (1 m to <2 m. BGL)															NL	3	NL	NL	NL	370	NL							
		Source depths (2m to <4 m. BGL)															NL	3	NL	NL	NL	630	NL							
		Source depths (4 m+)															NL	3	NL	NL	NL	NL	NL							
EILs / ESLs - Urban Residential and Public Open Space [1] [2]			100		198	80	1,200				35	145		33*			170	50	85	70	105	180	120	300	2800	180				
Management Limits – *Residential, parkland and public open space* [1]																						800	1,000	3,500	10,000					

Notes:

All results are recorded in mg/kg (unless otherwise stated)

Highlighted value indicates concentration exceeds HIL/HSL

Highlighted value indicates concentration exceeds EIL/ESL

Highlighted indicates criteria exceeded

HIL B	NEPC 1999 Amendment 2013 'HIL B' Health Based Investigation Levels applicable for residential exposure settings with minimal opportunities for garden soil access.
HIL C	NEPC 1999 Amendment 2013 'HIL C' Health Based Investigation Levels applicable for recreational/open space settings.
HIL D	NEPC 1999 Amendment 2013 'HIL D' Health Based Investigation Levels applicable for commercial/industrial.
HSL A&B	NEPC 1999 Amendment 2013 'HSL A&B' Health Based Screening Levels based on vapour intrusion values applicable for low to high density residential settings.
HSL C	NEPC 1999 Amendment 2013 'HSL C' Health Based Screening Levels based on vapour intrusion values applicable for recreational/open space settings.
HSL D	NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels based on vapour intrusion values applicable for commercial / industrial settings.
NA	'Not Analysed' i.e. the sample was not analysed.
ND	'Not detected' i.e. all concentrations of the compounds within the analyte group were found to be below the laboratory limits of detection.
NL	'Not Limiting' - The soil vapour limit exceeds the soil concentration at which the pore water phase cannot dissolve any more of the individual chemical.
1	Majority of the fill to be found as sandy material. Therefore, coarse grained soil (sand) values were applied.
2	EIL criteria is derived from a site specific Added Contaminant Limit (ACL) with the Ambient Background Concentration (ABC) for an old NSW and low traffic suburb. In lack of physiochemical properties for soils across the site, a site specific ACL criteria for heavy metals based on averaged physiochemical properties presented in Chapman and Murphy (2002) for the Glenorie (gn) soil landscape.
F1	To obtain F1 subtract the sum of BTEX concentrations from the C6-C10 fraction.
F2	To obtain F2 subtract Naphthalene from the >C10-C16 fraction.
F3	(>C16-C34)
F4	(>C34-C40)
*	CRC-Care (2017) Technical Report series, no. 39 Risk-based management and remediation guidance for benzo(a)pyrene, Cooperative Research Centre for Contamination Assessment and Remediation of the Environment, January 2017□

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Table T2 – Summary of Dewatering Investigation Results

Sample Identification		Date	HM									PAHs			BTEX					TRHs				Phenols	Cyanide	VOCs (ex. BTEX)
			As	Al	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Total PAHs	Benzo(a)pyrene	Naphthalene	Benzene	Toluene	Ethylbenzene	o-xylene	m/p-xylene	F1	F2	F3	F4	Total	Total (mg/L)	
BH1M-1 (2020)		10/01/2020	<1	NA	<0.1	<1	<1	<1	<0.1	5	14	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	**910**	<500	<500	<10	NA	ND
BH3M-1 (2020)			2	NA	<0.1	1	<1	<1	<0.1	**8**	**50**	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	20	NA	ND
BH4M-1 (2020)			2	NA	<0.1	<1	1	<1	0.1	3	9	640	**56**	1.3	0.6	<0.5	<0.5	<0.5	<1	<50	**330**	**4600**	**2000**	30	NA	ND
BH9M-1 (2020)			1	NA	<0.1	<1	<1	<1	<0.1	7	**43**	<1	<0.1	<0.1	<0.5	5.2	0.6	1.2	2	<50	**57000**	**4800**	**1800**	20	NA	ND
BH3M-1 (2021)		3/09/2021	<1	**49**	<0.1	<1	<1	<1	<0.1	5	**24**	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	NA	<0.004	NA
BH9M-1 (2021)			<1	**66**	<0.1	<1	2	<1	<0.1	2	**37**	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	NA	<0.004	NA
Groundwater Investigation Levels																										
ANZG (2018)/NEPM 2013	**Marine Water**		NR		0.7	27.4	1.3	4.4	0.1	7	15 [1]	NR	0.1	50 [1]	500 [1]	180	5	350	275	50 [3]	60 [3]	500 [3]	500 [3]	400	0.004	NR
	Fresh Water		24 (As III) 13 (As V)	0.8 (pH <6.5) 55 (pH >6.5)	0.2	3.3	1.4	3.4	0.6	11	8 [1]	NR	0.1	16	950		80							320	0.007	NR
NHMRC (2017)	**Recreational Water [2]**		100		20	50 [4]	1,000	100	10	200	3,000	NR	0.01		10	8,000	3,000	6,000		NR				2	0.00008	NR

Notes:

All values are µg/L unless stated otherwise

NL = Not Limiting

NA = 'Not Analysed' i.e. the sample was not analysed.

ND = Not Detected - i.e. concentration below the laboratory PQL

F1 To obtain F1 subtract the sum of BTEX concentrations from the C6-C10 fraction.

F2 To obtain F2 subtract naphthalene from the >C10-C16 fraction.

F3 (>C16-C34)

F4 (>C34-C40)

1 = Figure may not protect key species from chronic toxicity, refer to ANZG (2018) for further guidance

2 = Based on NHMRC (2017) Drinking Water Guidelines. The lowest of the Health Guideline x10 or the Aesthetic Guideline has been chosen as the assessment criteria

3 = In lack of a criteria the laboratory PQL has been used (DEC, 2007).

4 = ANZECC/ARMCANZ (2000) Recreational Criteria utilised were NHMRC (2017) does not provide criteria

5 = NEPC (2013) Table 1A(4) Groundwater HSL A&B and HSL D for vapour intrusion at the contaminant source depth ranges in sand 2m to <4m, as a conservative approach.

Highlighted indicates ecological criteria exceeded

Highlighted indicates criteria exceeded in latest round of testing

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	15/01/2020 9:52:33 AM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Cu

General Statistics

Total Number of Observations	14	Number of Distinct Observations	14
		Number of Missing Observations	0
Minimum	0.5	Mean	42.11
Maximum	100	Median	43
SD	34.06	Std. Error of Mean	9.102
Coefficient of Variation	0.809	Skewness	0.101

Normal GOF Test

Shapiro Wilk Test Statistic	0.91	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.161	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.237	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	58.23	95% Adjusted-CLT UCL (Chen-1995)	57.34
		95% Modified-t UCL (Johnson-1978)	58.27

Gamma GOF Test

A-D Test Statistic	0.902	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.773	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.218	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.238	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.725	k star (bias corrected MLE)	0.617
Theta hat (MLE)	58.12	Theta star (bias corrected MLE)	68.26
nu hat (MLE)	20.29	nu star (bias corrected)	17.27
MLE Mean (bias corrected)	42.11	MLE Sd (bias corrected)	53.61
		Approximate Chi Square Value (0.05)	8.868
Adjusted Level of Significance	0.0312	Adjusted Chi Square Value	8.079

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	82.02	95% Adjusted Gamma UCL (use when n<50)	90.02

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.814	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.233	**Lilliefors Lognormal GOF Test**

55	5% Lilliefors Critical Value					0.237	Data appear Lognormal at 5% Significance Level					
56	**Data appear Approximate Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59	Minimum of Logged Data					-0.693	Mean of logged Data					2.91
60	Maximum of Logged Data					4.605	SD of logged Data					1.807
61												
62	**Assuming Lognormal Distribution**											
63	95% H-UCL					804.8	90% Chebyshev (MVUE) UCL					194.8
64	95% Chebyshev (MVUE) UCL					249.6	97.5% Chebyshev (MVUE) UCL					325.8
65	99% Chebyshev (MVUE) UCL					475.3						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
69												
70	**Nonparametric Distribution Free UCLs**											
71	95% CLT UCL					57.08	95% Jackknife UCL					58.23
72	95% Standard Bootstrap UCL					56.13	95% Bootstrap-t UCL					57.58
73	95% Hall's Bootstrap UCL					56.39	95% Percentile Bootstrap UCL					56.71
74	95% BCA Bootstrap UCL					56.06						
75	90% Chebyshev(Mean, Sd) UCL					69.41	95% Chebyshev(Mean, Sd) UCL					81.78
76	97.5% Chebyshev(Mean, Sd) UCL					98.95	99% Chebyshev(Mean, Sd) UCL					132.7
77												
78	**Suggested UCL to Use**											
79	95% Student's-t UCL					58.23						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

1	**UCL Statistics for Uncensored Full Data Sets**											
2												
3	User Selected Options											
4	Date/Time of Computation	15/01/2020 9:55:55 AM										
5	From File	WorkSheet_b.xls										
6	Full Precision	OFF										
7	Confidence Coefficient	95%										
8	Number of Bootstrap Operations	2000										
9												
10												
11	**TRH - F2**											
12												
13	**General Statistics**											
14	Total Number of Observations		14			Number of Distinct Observations		2				
15						Number of Missing Observations		0				
16	Minimum		25			Mean		40.36				
17	Maximum		240			Median		25				
18	SD		57.46			Std. Error of Mean		15.36				
19	Coefficient of Variation		1.424			Skewness		3.742				
20												
21	**Normal GOF Test**											
22	Shapiro Wilk Test Statistic		0.297			**Shapiro Wilk GOF Test**						
23	5% Shapiro Wilk Critical Value		0.874			Data Not Normal at 5% Significance Level						
24	Lilliefors Test Statistic		0.534			**Lilliefors GOF Test**						
25	5% Lilliefors Critical Value		0.237			Data Not Normal at 5% Significance Level						
26	**Data Not Normal at 5% Significance Level**											
27												
28	**Assuming Normal Distribution**											
29	**95% Normal UCL**					**95% UCLs (Adjusted for Skewness)**						
30	95% Student's-t UCL		67.55			95% Adjusted-CLT UCL (Chen-1995)		82.03				
31						95% Modified-t UCL (Johnson-1978)		70.11				
32												
33	**Gamma GOF Test**											
34	A-D Test Statistic		4.983			**Anderson-Darling Gamma GOF Test**						
35	5% A-D Critical Value		0.749			Data Not Gamma Distributed at 5% Significance Level						
36	K-S Test Statistic		0.553			**Kolmogrov-Smirnoff Gamma GOF Test**						
37	5% K-S Critical Value		0.232			Data Not Gamma Distributed at 5% Significance Level						
38	**Data Not Gamma Distributed at 5% Significance Level**											
39												
40	**Gamma Statistics**											
41	k hat (MLE)		1.723			k star (bias corrected MLE)		1.402				
42	Theta hat (MLE)		23.42			Theta star (bias corrected MLE)		28.79				
43	nu hat (MLE)		48.26			nu star (bias corrected)		39.25				
44	MLE Mean (bias corrected)		40.36			MLE Sd (bias corrected)		34.09				
45						Approximate Chi Square Value (0.05)		25.9				
46	Adjusted Level of Significance		0.0312			Adjusted Chi Square Value		24.47				
47												
48	**Assuming Gamma Distribution**											
49	95% Approximate Gamma UCL (use when n>=50))		61.16			95% Adjusted Gamma UCL (use when n<50)		64.74				
50												
51	**Lognormal GOF Test**											
52	Shapiro Wilk Test Statistic		0.297			**Shapiro Wilk Lognormal GOF Test**						
53	5% Shapiro Wilk Critical Value		0.874			Data Not Lognormal at 5% Significance Level						
54	Lilliefors Test Statistic		0.534			**Lilliefors Lognormal GOF Test**						

55	5% Lilliefors Critical Value					0.237	Data Not Lognormal at 5% Significance Level					
56	**Data Not Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59	Minimum of Logged Data					3.219	Mean of logged Data					3.38
60	Maximum of Logged Data					5.481	SD of logged Data					0.604
61												
62	**Assuming Lognormal Distribution**											
63	95% H-UCL					51.12	90% Chebyshev (MVUE) UCL					52.26
64	95% Chebyshev (MVUE) UCL					60.19	97.5% Chebyshev (MVUE) UCL					71.19
65	99% Chebyshev (MVUE) UCL					92.81						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data do not follow a Discernible Distribution (0.05)**											
69												
70	**Nonparametric Distribution Free UCLs**											
71	95% CLT UCL					65.62	95% Jackknife UCL					N/A
72	95% Standard Bootstrap UCL					N/A	95% Bootstrap-t UCL					N/A
73	95% Hall's Bootstrap UCL					N/A	95% Percentile Bootstrap UCL					N/A
74	95% BCA Bootstrap UCL					N/A						
75	90% Chebyshev(Mean, Sd) UCL					86.43	95% Chebyshev(Mean, Sd) UCL					107.3
76	97.5% Chebyshev(Mean, Sd) UCL					136.3	99% Chebyshev(Mean, Sd) UCL					193.2
77												
78	**Suggested UCL to Use**											
79	95% Chebyshev (Mean, Sd) UCL					107.3						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	23/01/2020 9:40:53 AM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Pb

General Statistics

Total Number of Observations	14	Number of Distinct Observations	12
		Number of Missing Observations	0
Minimum	1	Mean	248.1
Maximum	2500	Median	89.5
SD	651.4	Std. Error of Mean	174.1
Coefficient of Variation	2.626	Skewness	3.678

Normal GOF Test

Shapiro Wilk Test Statistic	0.382	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.44	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.237	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	556.4	95% Adjusted-CLT UCL (Chen-1995)	717.3
		95% Modified-t UCL (Johnson-1978)	584.9

Gamma GOF Test

A-D Test Statistic	1.07	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.815	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.282	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.245	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.387	k star (bias corrected MLE)	0.351
Theta hat (MLE)	641.4	Theta star (bias corrected MLE)	705.8
nu hat (MLE)	10.83	nu star (bias corrected)	9.842
MLE Mean (bias corrected)	248.1	MLE Sd (bias corrected)	418.4
		Approximate Chi Square Value (0.05)	3.843
Adjusted Level of Significance	0.0312	Adjusted Chi Square Value	3.361

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	635.3	95% Adjusted Gamma UCL (use when n<50)	726.5

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.93	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.233	**Lilliefors Lognormal GOF Test**

55	5% Lilliefors Critical Value					0.237	Data appear Lognormal at 5% Significance Level					
56	**Data appear Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59	Minimum of Logged Data					0	Mean of logged Data					3.803
60	Maximum of Logged Data					7.824	SD of logged Data					2.021
61												
62	**Assuming Lognormal Distribution**											
63	95% H-UCL					4869	90% Chebyshev (MVUE) UCL					700.6
64	95% Chebyshev (MVUE) UCL					905.8	97.5% Chebyshev (MVUE) UCL					1191
65	99% Chebyshev (MVUE) UCL					1750						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
69												
70	**Nonparametric Distribution Free UCLs**											
71	95% CLT UCL					534.4	95% Jackknife UCL					556.4
72	95% Standard Bootstrap UCL					528.7	95% Bootstrap-t UCL					2722
73	95% Hall's Bootstrap UCL					2169	95% Percentile Bootstrap UCL					584.6
74	95% BCA Bootstrap UCL					780.8						
75	90% Chebyshev(Mean, Sd) UCL					770.3	95% Chebyshev(Mean, Sd) UCL					1007
76	97.5% Chebyshev(Mean, Sd) UCL					1335	99% Chebyshev(Mean, Sd) UCL					1980
77												
78	**Suggested UCL to Use**											
79	99% Chebyshev (Mean, Sd) UCL					1980						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	15/01/2020 9:54:02 AM
From File	WorkSheet_a.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Zn

General Statistics

Total Number of Observations	14	Number of Distinct Observations	14
		Number of Missing Observations	0
Minimum	3.6	Mean	152.9
Maximum	1000	Median	73.5
SD	256.2	Std. Error of Mean	68.48
Coefficient of Variation	1.676	Skewness	3.18

Normal GOF Test

Shapiro Wilk Test Statistic	0.563	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.315	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.237	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	274.2	95% Adjusted-CLT UCL (Chen-1995)	327.7
		95% Modified-t UCL (Johnson-1978)	283.8

Gamma GOF Test

A-D Test Statistic	0.381	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.778	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.15	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.239	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.665	k star (bias corrected MLE)	0.57
Theta hat (MLE)	229.7	Theta star (bias corrected MLE)	268
nu hat (MLE)	18.63	nu star (bias corrected)	15.97
MLE Mean (bias corrected)	152.9	MLE Sd (bias corrected)	202.4
		Approximate Chi Square Value (0.05)	7.943
Adjusted Level of Significance	0.0312	Adjusted Chi Square Value	7.203

Assuming Gamma Distribution

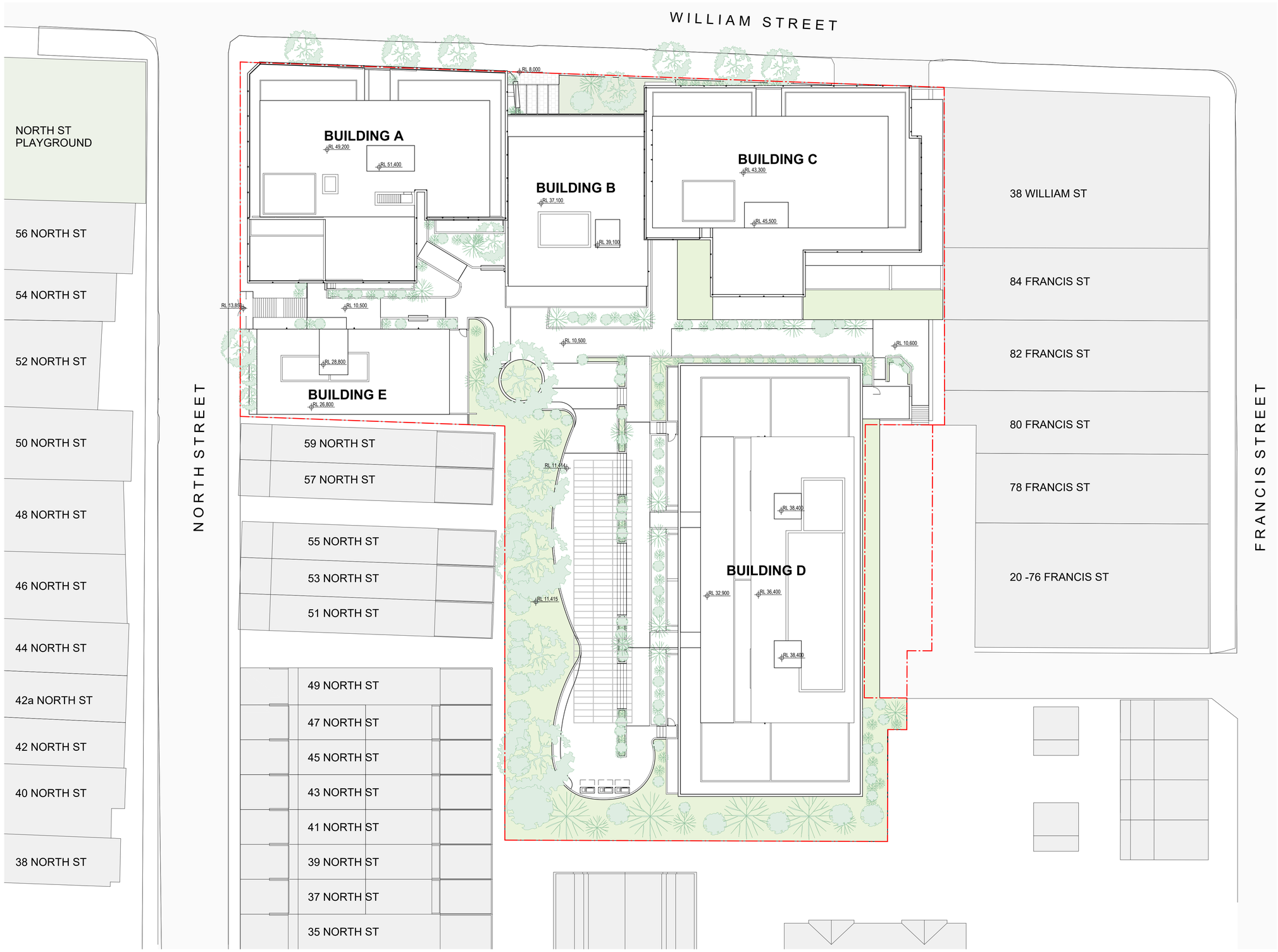
95% Approximate Gamma UCL (use when n>=50)	307.4	95% Adjusted Gamma UCL (use when n<50)	339

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.968	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.155	**Lilliefors Lognormal GOF Test**

55	5% Lilliefors Critical Value					0.237	Data appear Lognormal at 5% Significance Level					
56	**Data appear Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59	Minimum of Logged Data					1.281	Mean of logged Data					4.115
60	Maximum of Logged Data					6.908	SD of logged Data					1.507
61												
62	**Assuming Lognormal Distribution**											
63	95% H-UCL					896.6	90% Chebyshev (MVUE) UCL					389.6
64	95% Chebyshev (MVUE) UCL					491.3	97.5% Chebyshev (MVUE) UCL					632.5
65	99% Chebyshev (MVUE) UCL					910						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
69												
70	**Nonparametric Distribution Free UCLs**											
71	95% CLT UCL					265.5	95% Jackknife UCL					274.2
72	95% Standard Bootstrap UCL					260.7	95% Bootstrap-t UCL					559.2
73	95% Hall's Bootstrap UCL					719.9	95% Percentile Bootstrap UCL					283.8
74	95% BCA Bootstrap UCL					356.4						
75	90% Chebyshev(Mean, Sd) UCL					358.3	95% Chebyshev(Mean, Sd) UCL					451.4
76	97.5% Chebyshev(Mean, Sd) UCL					580.5	99% Chebyshev(Mean, Sd) UCL					834.2
77												
78	**Suggested UCL to Use**											
79	95% Adjusted Gamma UCL					339						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

Appendix C - Selected Proposed Development Plans



Date generated 29/08/2025 4:12:55 PM

Recent revision history

#	Status	Description	Date

Notes

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Contractor must verify all dimensions on site before commencing work or preparing shop drawings.

Do not scale drawings.

Project
40-76 William Street

Client
Ceerose

Issuer
W–B
WOODS BAGOT

Project number
122105

Size check
25mm

Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 250

Sheet title
Site Plan

Sheet number
SK-11001

Revision

Status

Date generated 29/08/2025 4:13:02 PM

Recent revision history

#	Status	Description	Date

Notes
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Project
40-76 William Street

Client
Ceerose

Issuer
W—B
WOODS BAGOT

Project number
122105

Size check
25mm

Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 200

Sheet title
Basement 02

Sheet number
SK-12098

Revision

Status

WILLIAM STREET

NORTH STREET

FRANCIS STREET

WASTE BLD A
53 m²

PEDESTRIAN ENTRY ABOVE

DRIVEWAY ABOVE

LOADING DOCK ABOVE RL 9000

UP TO WILLIAM ST

DOWN TO B2

FIRE BOOSTER

Cold Water Pump Room 22 m²

Electrical Switch Room 39 m²

GOODS LIFT

Substation 19 m²

Store 45 m² 2.1-2.2 LOW HEAD HEIGHT STORAGE

RAMP OVERHEAD

Mail Room 20 m²

LARGE PARCEL STORE

Authority Cold Water Meter 17 m²

FIRE TANK ACCESS

FIRE EGRESS

Bike Store 121 m²

76 BIKES

64 BIKES

BUILDING A LOBBY

BUILDING B LOBBY

BUILDING C LOBBY

Comms Distribution Room 9 m²

6 x FOGO Bins

2x GC

LR

SMALL CAR

CAR SHARE

Store 10 m²

Store 6 m²

Store 8 m²

OSD TANK

Rainwater Tank 26 m²

FOGO Bin

WASH BAY 1

WASH BAY 2

FLOOR OVERHEAD 2.2-2.3m CLEAR

BASEMENT 01
99 CAR PARKS
9 MOTORBIKE PARKS
RL +6,500

BUILDING E LOBBY

Store 14 m²

Store 5 m²

Store 6 m²

Store 7 m²

Waste 17 m²

Waste 36 m²

4 x FOGO Bins

BUILDING D1 LOBBY

BUILDING D2 LOBBY

Store 10 m²

Waste 40 m²

Carpark Fan Room 31 m²

RIGHT OF CARRIAGEWAY 5.5 AND 8.89 WIDE (DP780576)

DEEP SOIL : 612 m²

1:5

1:8

RL 8.000

RL 8.336

RL 6.500

RL 7.300

1 SK-13201

1 SK-13101

1 SK-13202

2 SK-13201

1 SK-13204

2 SK-13202

2 SK-13203

2 SK-13209

1 SK-13102

Date generated 29/08/2025 4:13:06 PM

Recent revision history

#	Status	Description	Date

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Project
40-76 William Street

Client
Ceerose

Issuer
W–B
WOODS BAGOT

Project number
122105

Size check
25mm

Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 200

Sheet title
Basement 01

Sheet number
SK-12099

Revision

Status

WILLIAM STREET

NORTH STREET

FRANCIS STREET

PROPOSED PEDESTRIAN PATH

PROPOSED DRIVEWAY

3 Bed A.GR.01 139 m²

POS A.GR.01 15 m²

3 Bed A.GR.02 118 m²

POS A.GR.02 11 m²

3 Bed C.GR.02 124 m²

Wellness Amenity

Residence Workshop

44 Bikes

BIKE STORE

BUILDING A GROUND FLOOR LOBBY

FIRE EGRESS

2 Bed A.GR.03 86 m²

POS A.GR.03 20 m²

GAS METER & REGULATER ROOM

BOH / Utilities E.02.07 87 m²

BUILDING E GROUND FLOOR LOBBY

2 Bed E.GR.01 88 m²

POS E.GR.01 43 m²

FIRE BOOSTER

LOBBY WAITING AREA (TBD)

BM 18 m²

BUILDING B GROUND FLOOR LOBBY

BUILDING C GROUND FLOOR LOBBY

LOADING DOCK 123x 660L Bins 25x 240L Bins

MEZZANINE SLAB ABOVE

Condensers 58 m²

DRIVEWAY

VISUAL SPLAY SIGHT TRIANGLE

POS B.GR.01 10 m²

2 Bed B.GR.01 85 m²

3 Bed D1.GR.04 121 m²

POS D1.GR.04 24 m²

POS D1.GR.03 26 m²

2 Bed D1.GR.03 85 m²

PARK

POS D1.GR.02 26 m²

2 Bed D1.GR.02 91 m²

2 Bed D2.GR.04 91 m²

POS D2.GR.04 26 m²

2 Bed D2.GR.03 85 m²

POS D2.GR.03 27 m²

POS D2.GR.02 25 m²

3 Bed D2.GR.02 121 m²

BBQ

CARPARK SUPPLY AIR

BUILDING D1 GROUND FLOOR LOBBY

BUILDING D2 GROUND FLOOR LOBBY

POS D1.GR.04 12 m²

POS D1.GR.05 9 m²

2 Bed - A D1.GR.05 82 m²

1 Bed - A D1.GR.01 52 m²

POS D1.GR.01 9 m²

POS D2.GR.02 9 m²

POS D2.GR.04 9 m²

POS D2.GR.05 9 m²

1 Bed - A D2.GR.05 52 m²

2 Bed - A D2.GR.01 82 m²

POS D2.GR.01 9 m²

POS D2.GR.02 12 m²

RIGHT OF CARRIAGEWAY 5.5 AND 8.69 WIDE (DP789576)

RIGHT OF CARRIAGEWAY 5.5 AND 8.69 WIDE (DP789576)

FLOOD BARRIER

BUILDING OUTLINE ABOVE

SHADING PERGOLA ABOVE

RL 8.000 RL 8.400 RL 8.542 RL 8.922 RL 9.000 RL 9.100 RL 9.350 RL 10.500 RL 10.600 RL 10.800 RL 11.100

1:21 1:28 1:30 1:40 1:90

1 SK-1310

1 SK-13204

2 SK-13202

2 SK-13203

2 SK-13204

1 SK-13201

1 SK-13202

1 SK-13203

2 SK-13107

1 SK-13102

2 SK-13207

Date generated 29/08/2025 4:13:15 PM

Recent revision history

#	Status	Description	Date
	Rev Status	Revision Description	00/00/00

Notes
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Do not scale drawings.

SOLAR
CROSS VENT
SILVER LIVEABLE HOUSING

Project
40-76 William Street

Client
Ceerose

Issuer
W—B
WOODS BAGOT

Project number
122105

Size check
25mm

Checked
Checker

Approved
Approver

Sheet size
A1

Scale
1 : 200

Sheet title
Ground Level

Sheet number
SK-12100

Revision

Status

WILLIAM STREET

NORTH STREET

FRANCIS STREET

2 Bed A.01.05 92 m² | POS A.01.05 9 m² | POS A.01.06 11 m² | 2 Bed A.01.06 97 m² | 2 Bed A.01.01 87 m² | POS A.01.01 11 m² | 3 Bed A.01.02 118 m² | POS A.01.02 12 m²

POS B.01.02 16 m² | 3 Bed B.01.02 146 m² | POS B.01.03 10 m² | 2 Bed B.01.03 86 m²

2 Bed C.01.01 86 m² | POS C.01.01 14 m² | POS C.01.02 11 m² | 2 Bed C.01.02 84 m² | 2 Bed C.01.03 80 m² | POS C.01.03 11 m² | 1 Bed - A C.01.04 53 m² | POS C.01.04 9 m² | POS C.01.05 8 m² | 2 Bed - A C.01.05 97 m²

LEVEL 01 LIFT LOBBY RL 14,460

LEVEL 01 LIFT LOBBY RL 14,200

LEVEL 01 LIFT LOBBY RL 14,200

RL 13,850

POS A.01.04 10 m² | 2 Bed A.01.04 82 m² | 2 Bed A.01.03 87 m² | 2 Bed 87 m² | POS A.01.03 10 m²

2 Bed C.01.06 96 m² | POS C.01.06 59 m² | POS C.01.05 21 m²

POS B.01.02 8 m² | POS B.01.01 10 m² | 2 Bed B.01.01 85 m²

2 Bed C.01.07 84 m² | POS C.01.07 49 m²

2 Bed E.01.02 81 m² | 2 Bed E.01.01 83 m²

LEVEL 04 LOBBY RL 13,700

POS E.01.02 16 m² | POS E.01.01 15 m²

POS D1.01.04 12 m² | POS D1.01.04 12 m²

3 Bed D1.01.04 119 m² | POS D1.01.05 9 m²

POS D1.01.03 10 m² | 2 Bed - A D1.01.05 82 m²

LEVEL 03 LIFT LOBBY RL 13,700

2 Bed D1.01.03 86 m² | 1 Bed - A D1.01.01 52 m²

POS D1.01.02 17 m² | POS D1.01.01 9 m²

2 Bed D1.01.02 91 m² | POS D1.01.02 9 m²

2 Bed D2.01.04 91 m² | POS D2.01.04 9 m²

POS D2.01.04 17 m² | POS D2.01.05 9 m²

LEVEL 02 LIFT LOBBY RL 13,700

2 Bed D2.01.03 85 m² | 1 Bed - A D2.01.05 52 m²

2 Bed - A D2.01.01 82 m²

POS D2.01.03 10 m² | POS D2.01.01 9 m²

POS D2.01.02 12 m² | POS D2.01.02 12 m²

3 Bed D2.01.02 119 m²

1 SK-13101 | 1 SK-13201 | 1 SK-13202 | 1 SK-13203 | 2 SK-13207 | 1 SK-13201 | 2 SK-13202 | 2 SK-13203 | 2 SK-13204 | 1 SK-13102 | 2 SK-13107

- SOLAR
- CROSS VENT
- SILVER LIVEABLE HOUSING

Recent revision history

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Project
40-76 William Street

Client
Ceerose

Issuer
W—B
WOODS BAGOT

Project number
122105

Size check
25mm

Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 200

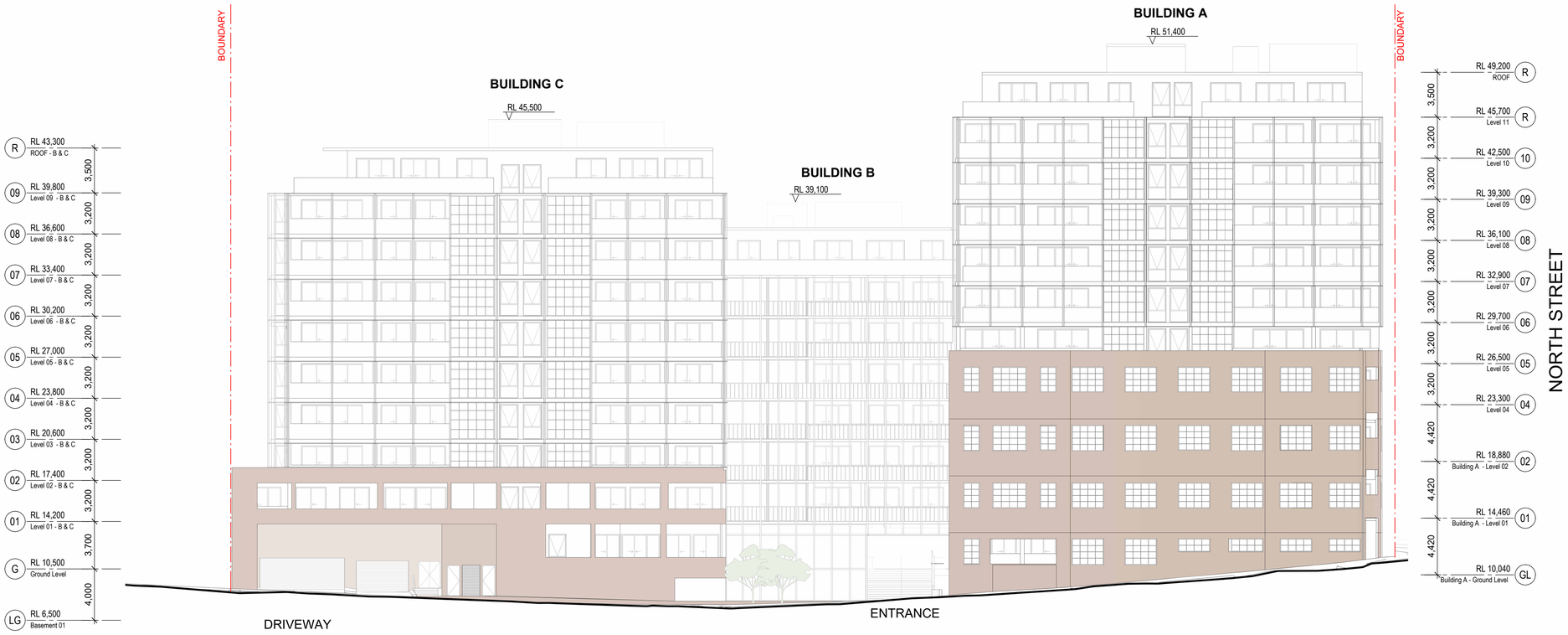
Sheet title
Level 01

Sheet number
SK-12101

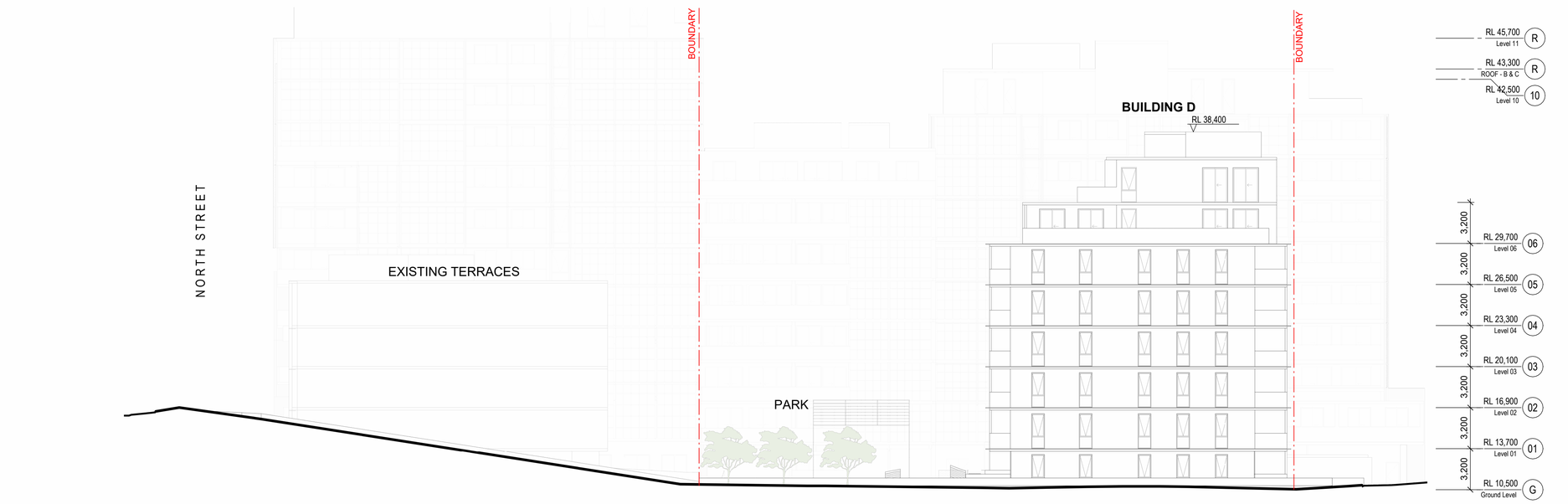
Revision

Status

Date generated 29/08/2025 4:13:27 PM



1 North Elevation
SCALE 1 : 200



2 South Elevation
SCALE 1 : 200

Date generated 29/08/2025 3:38:42 PM

Recent revision history

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Project number
122105

Size check
25mm

Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 200

Sheet title
Overall Elevation - North & South

Sheet number
SK-13101

Revision

Status

1 East Elevation
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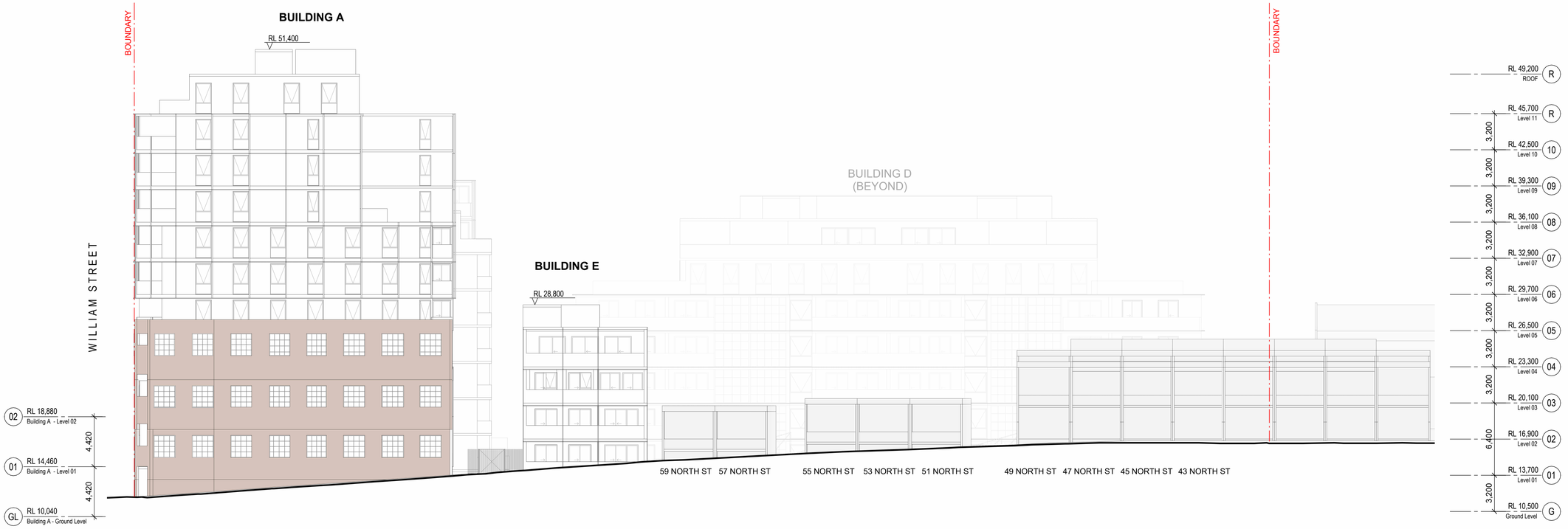

2 West Elevation
SCALE 1 : 200

Date generated 29/08/2025 3:39:28 PM

Recent revision history

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40-76 William Street

Client
Ceerose

Issuer
W—B
WOODS BAGOT

Project number
122105

Size check
25mm

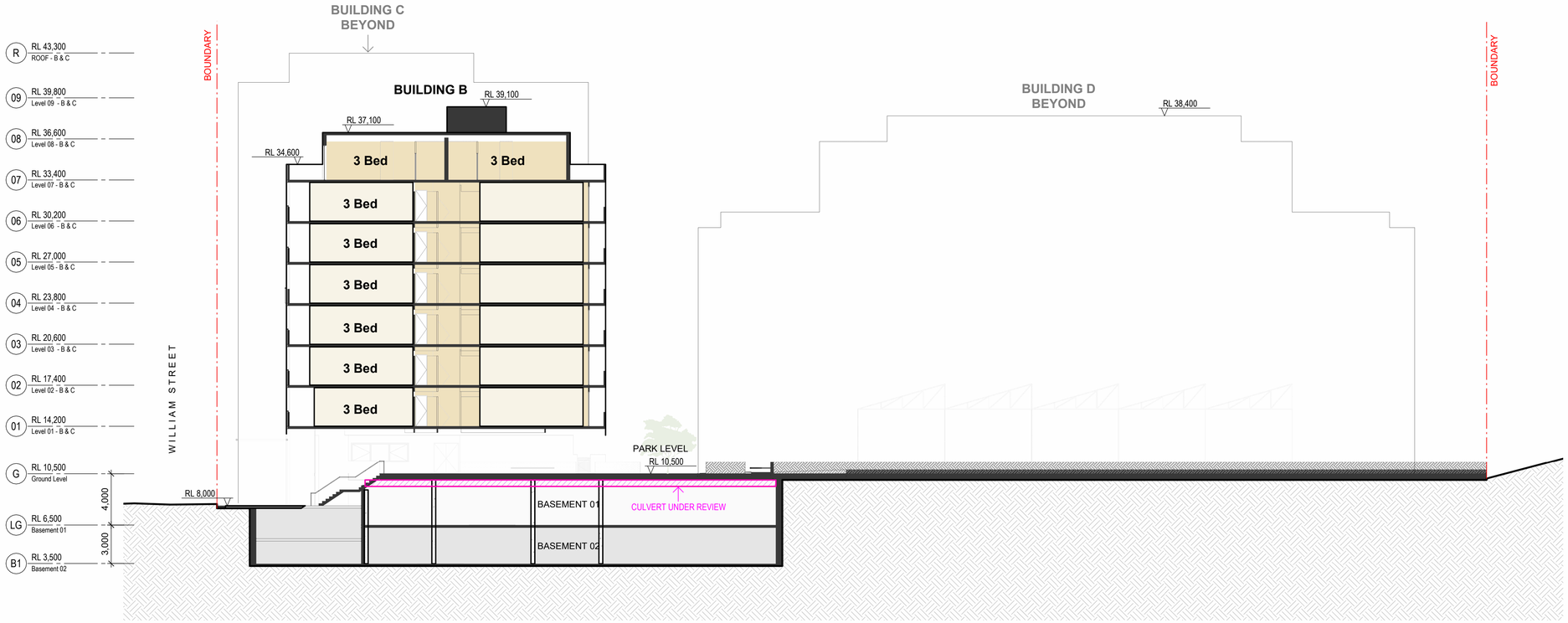
Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 200

Sheet title
Overall Elevation - East & West

Sheet number
SK-13102

Revision

Status



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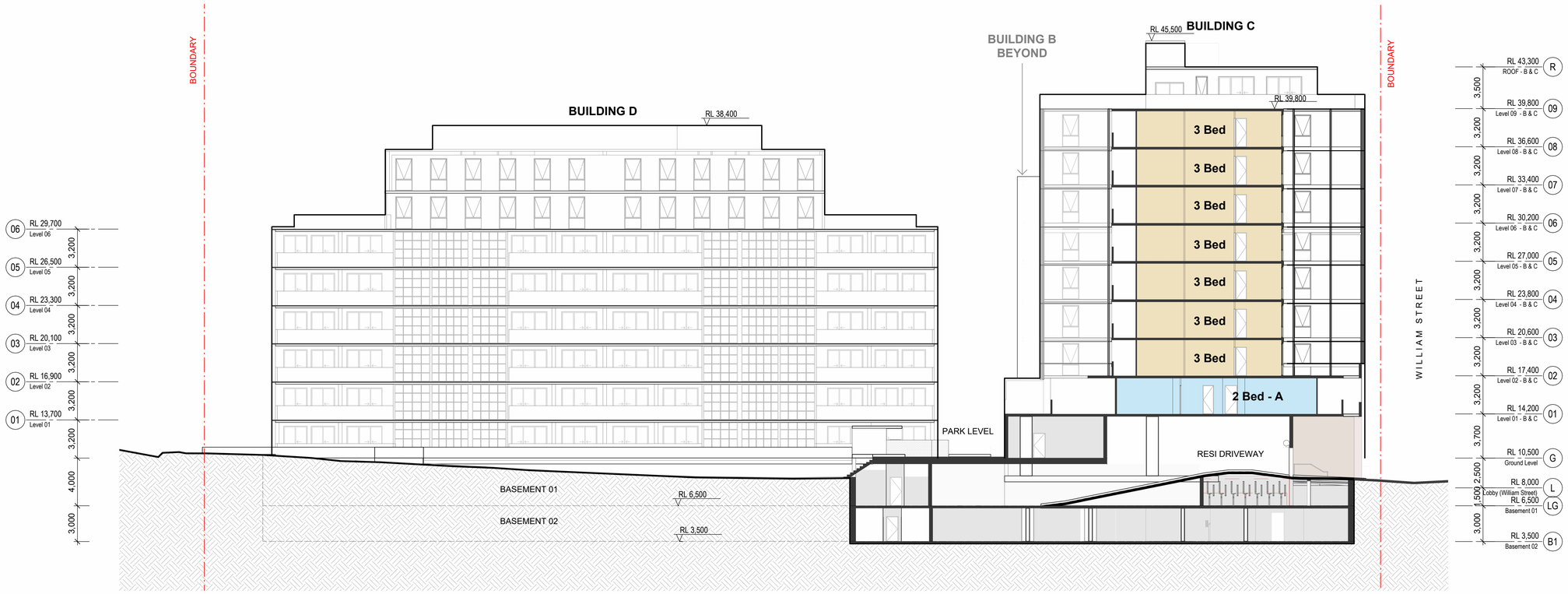

2 Section B
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Date generated 29/08/2025 4:28:42 PM

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40-76 William Street

Client
Ceerose

Issuer
W—B
WOODS BAGOT

Project number
122105

Size check
25mm

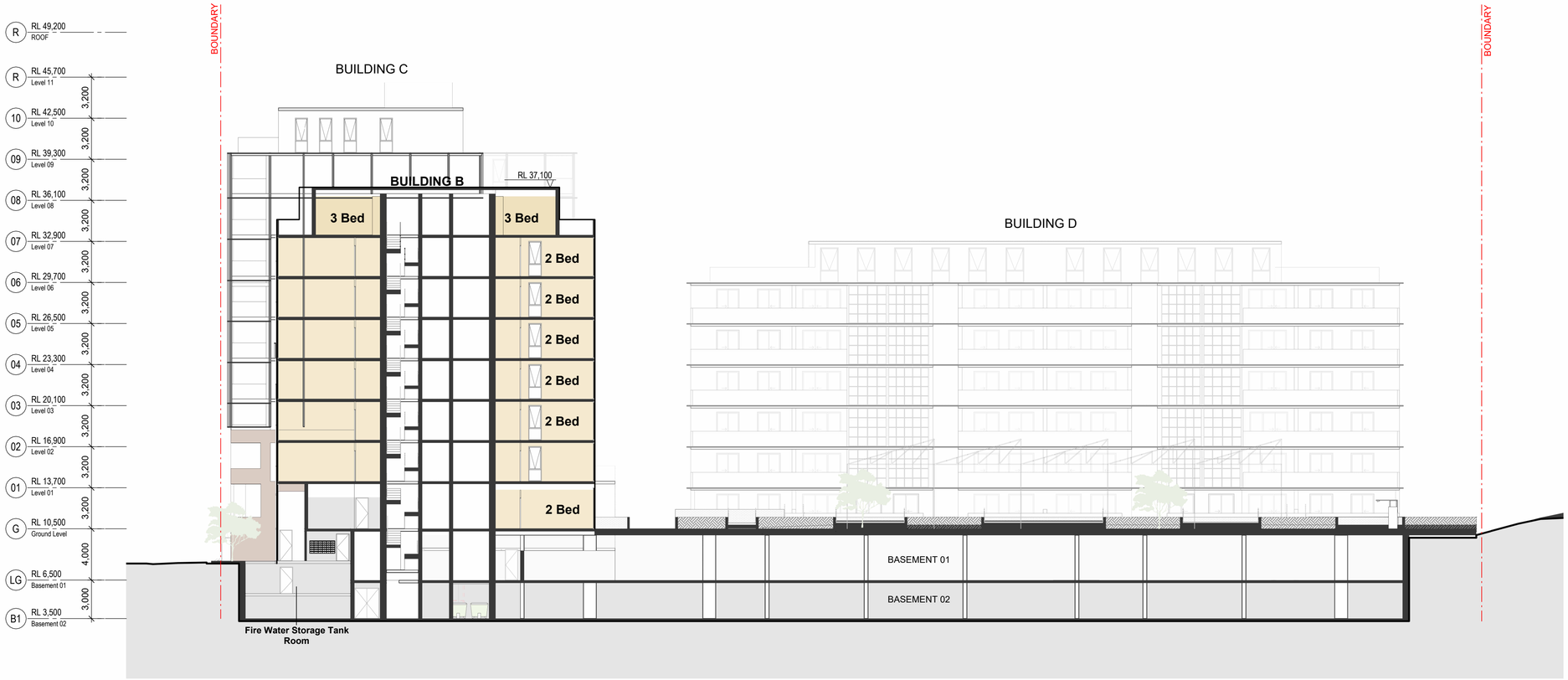
Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 200

Sheet title
Section A & B

Sheet number
SK-13201

Revision

Status



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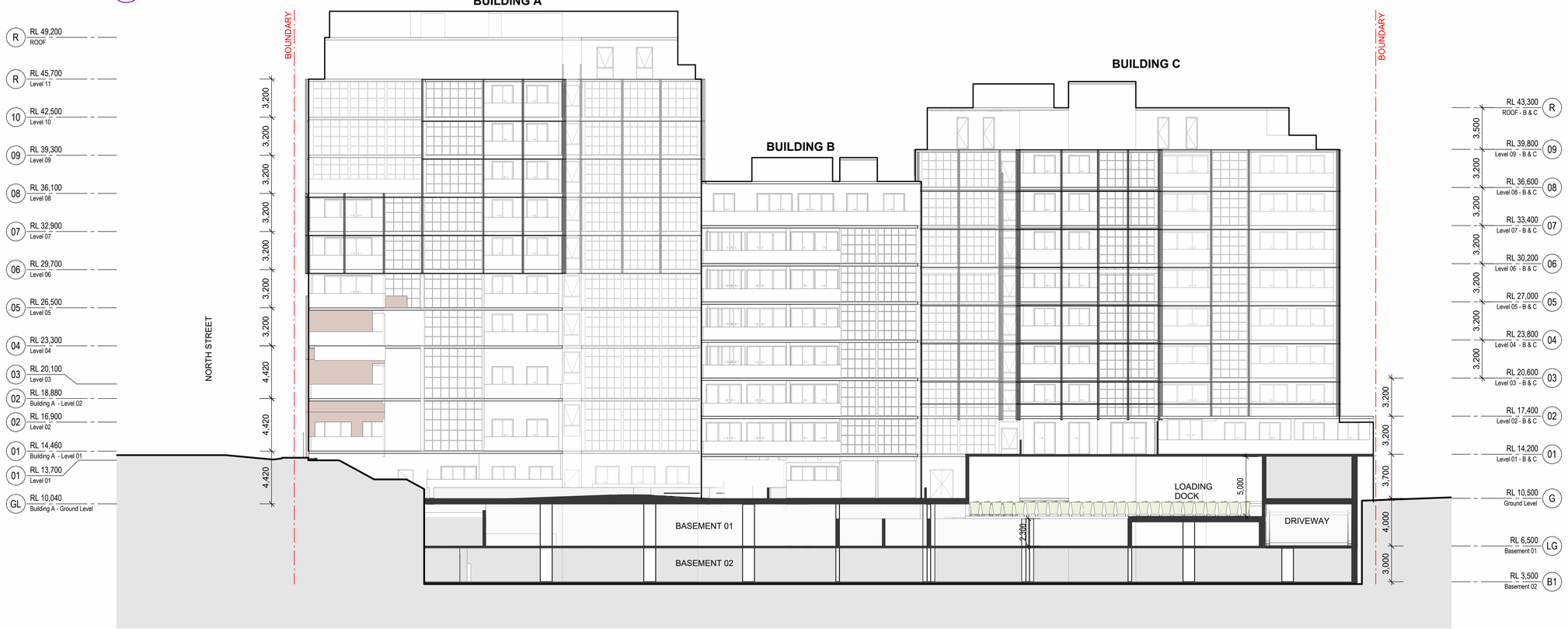

2 Section D
SCALE 1 : 200

Date generated 29/08/2025 4:29:13 PM

Recent revision history

#	Status	Description	Date

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Project
40-76 William Street

Client
Ceerose

Issuer
W–B
WOODS BAGOT

Project number
122105

Size check
25mm

Checked
Checker

Approved
Approver

Sheet size
A1

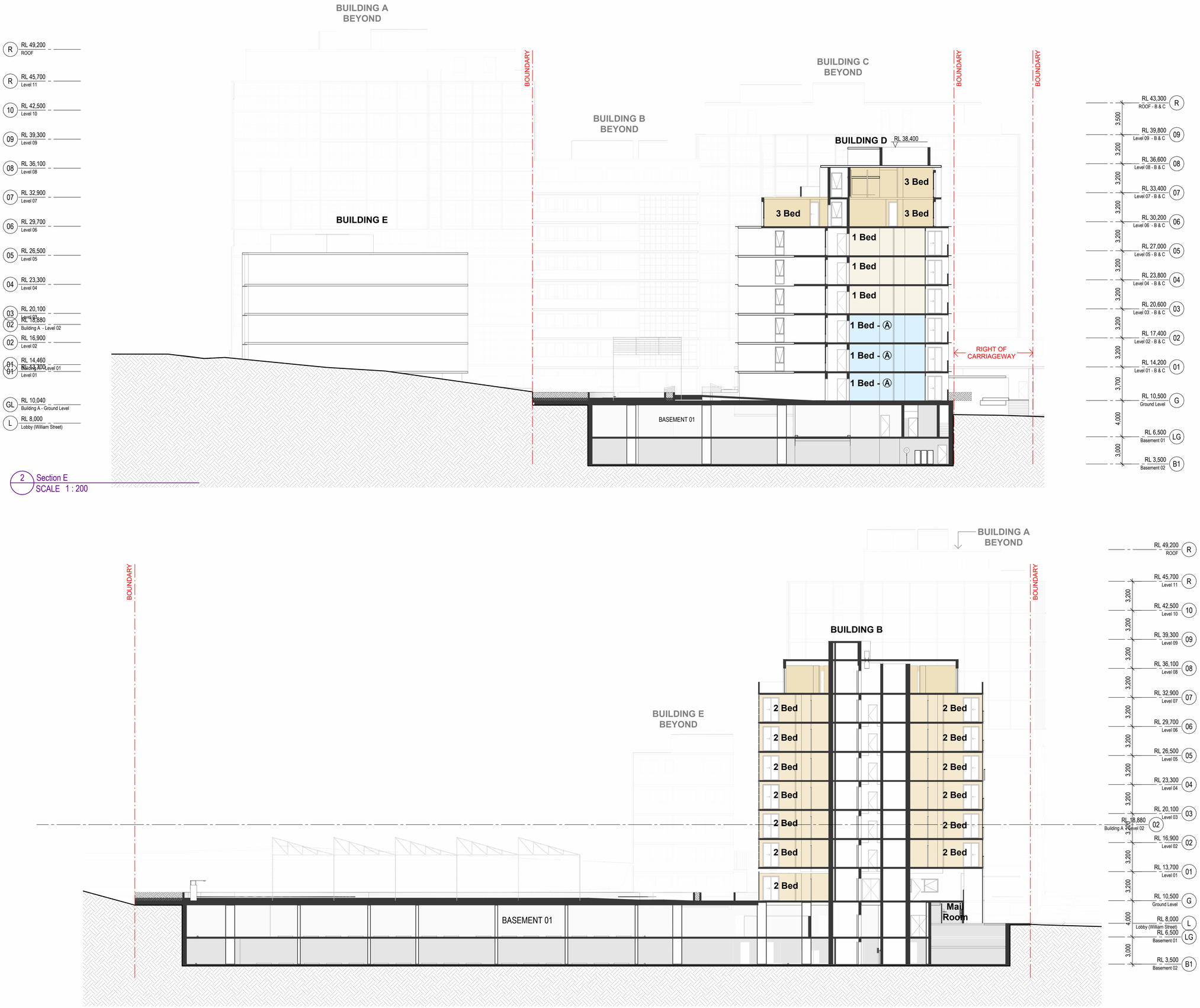
Scale
1 : 200

Sheet title
Section C & D

Sheet number
SK-13202

Revision

Status



2 Section E
SCALE 1 : 200

1 Section F
SCALE 1 : 200

Date generated 29/08/2025 4:29:52 PM

Recent revision history

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Project
40-76 William Street

Client
Ceerose

Issuer
W–B
WOODS BAGOT

Project number	Size check
122105	25mm

Checked	Approved	Sheet size	Scale
Checker	Approver	A1	1 : 200

Sheet title
Section E & F

Sheet number
SK-13203

Revision

Status

Appendix D - Groundwater Bore Search, Lotsearch Report and SafeWork NSW Records Correspondence

State Overview
State Overview

Rivers and Streams
favourites · search ·
download sites · find a site
Real Time Data - Rivers And Str...

Daily River Reports
Daily River Reports

Dams
favourites · search ·
download sites · find a site
Real Time Data - Major Dams

Groundwater (Telemetered data)
favourites · search ·
download sites · find a site
Real Time Data - Bores

All Groundwater Site details
search · download sites ·
find a site · search by licence
All Groundwater Map

Meteorology
favourites · search ·
download sites · find a site
Real Time Data - Weather Stati...

Hunter Integrated Telemetry System
Hunter Integrated Telemetry S...

contact WaterNSW

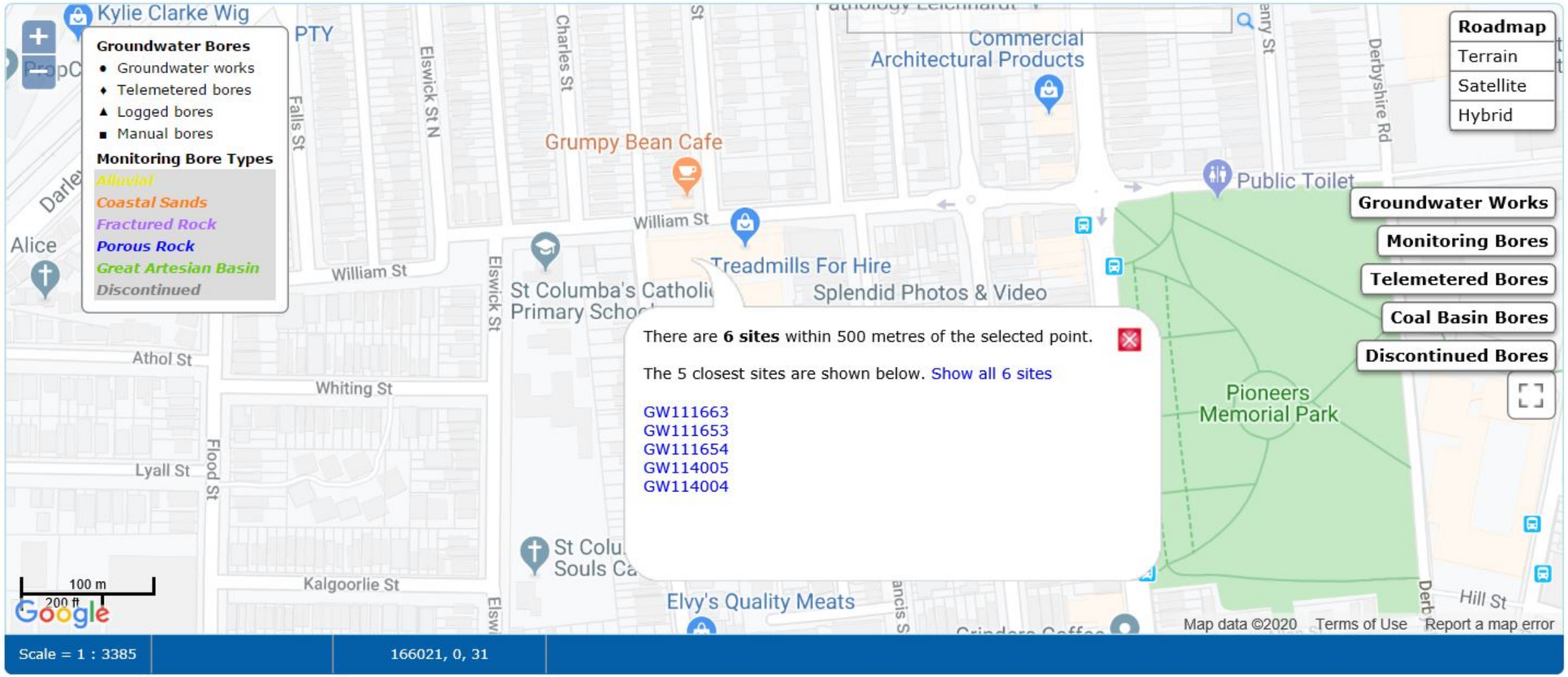
All Groundwater Site Details

All Groundwater Map

bookmark this page

All data times are Eastern Standard Time

Map | Info



NSW GOVERNMENT | SafeWork NSW

Locked Bag 2906, Lisarow NSW 2252
Customer Experience 13 10 50
ABN 81 913 830 179 | www.safework.nsw.gov.au

Our Ref: D19/236342

6 December 2019

Ms Sharon Li
EI Australia
Suite 6.01
55 Miller St
PYRMONT NSW 2009

Dear Ms Li

RE SITE: 40-76 William St, Leichhardt NSW 2040

I refer to your site search request received by SafeWork NSW on 4 November 2019 requesting information on Storage of Hazardous Chemicals for the above site.

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

For further information or if you have any questions, please call us on 13 10 50 or email licensing@safework.nsw.gov.auw

Yours sincerely

Customer Service Officer
Customer Experience - Operations
SafeWork NSW

LOTSEARCH

LOTSEARCH ENVIRO LITE

Date: 28 Nov 2019 19:30:26

Reference: LS009943 EL

Address: 40-76 William Street, Leichhardt, NSW 2040

Disclaimer:
The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.
You should obtain independent advice before you make any decision based on the information within the report.
The detailed terms applicable to use of this report are set out at the end of this report.

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Finance, Services & Innovation	28/11/2019	28/11/2019	Daily	-	-	-	-
Topographic Data	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	19/11/2019	18/11/2019	Monthly	1000	0	0	3
Contaminated Land Records of Notice	Environment Protection Authority	13/11/2019	13/11/2019	Monthly	1000	0	0	1
Former Gasworks	Environment Protection Authority	04/11/2019	11/10/2017	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	05/11/2019	07/03/2017	Quarterly	1000	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority	04/11/2019	04/11/2019	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program	Department of Defence	04/11/2019	04/11/2019	Monthly	2000	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	04/11/2019	04/11/2019	Monthly	2000	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	04/11/2019	04/11/2019	Monthly	2000	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	13/12/2018	13/12/2018	Annually	1000	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	25/11/2019	25/11/2019	Monthly	1000	0	1	3
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	25/11/2019	25/11/2019	Monthly	1000	0	0	2
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	25/11/2019	25/11/2019	Monthly	1000	0	0	3
UPSS Environmentally Sensitive Zones	Environment Protection Authority	14/04/2015	12/01/2010	As required	1000	1	1	1
UBD Business to Business Directory 1991 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	3	5
UBD Business to Business Directory 1991 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business to Business Directory 1986 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	9	18
UBD Business to Business Directory 1986 (Road & Area Matches)	Hardie Grant			Not required	150	-	3	3
UBD Business Directory 1982 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	5	12
UBD Business Directory 1982 (Road & Area Matches)	Hardie Grant			Not required	150	-	3	3
UBD Business Directory 1978 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	5
UBD Business Directory 1978 (Road & Area Matches)	Hardie Grant			Not required	150	-	7	7
UBD Business Directory 1975 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	8	15
UBD Business Directory 1975 (Road & Area Matches)	Hardie Grant			Not required	150	-	8	8
UBD Business Directory 1970 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	3	12
UBD Business Directory 1970 (Road & Area Matches)	Hardie Grant			Not required	150	-	15	15
UBD Business Directory 1965 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	11	24
UBD Business Directory 1965 (Road & Area Matches)	Hardie Grant			Not required	150	-	1	1
UBD Business Directory 1961 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	13	32

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
UBD Business Directory 1961 (Road & Area Matches)	Hardie Grant			Not required	150	-	5	5
UBD Business Directory 1950 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	9	23
UBD Business Directory 1950 (Road & Area Matches)	Hardie Grant			Not required	150	-	6	6
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500	0	0	97
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500	-	0	72
Points of Interest	NSW Department of Finance, Services & Innovation	12/07/2019	12/07/2019	Quarterly	1000	0	4	78
Tanks (Areas)	NSW Department of Finance, Services & Innovation	12/07/2019	12/07/2019	Quarterly	1000	0	0	0
Tanks (Points)	NSW Department of Finance, Services & Innovation	12/07/2019	12/07/2019	Quarterly	1000	0	0	0
Major Easements	NSW Department of Finance, Services & Innovation	12/07/2019	12/07/2019	Quarterly	1000	0	0	4
State Forest	NSW Department of Finance, Services & Innovation	18/01/2018	18/01/2018	As required	1000	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	16/01/2019	14/11/2018	Annually	1000	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Botany Groundwater Management Zones	NSW Department of Primary Industries	15/03/2018	01/10/2005	As required	1000	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000	0	0	37
Geological Units 1:100,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	2	-	5
Geological Structures 1:100,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	0	-	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000	0	0	0
Soil Landscapes	NSW Office of Environment & Heritage	12/08/2014		None planned	1000	1	-	5
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000	1	1	2
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning and Environment	22/11/2019	11/10/2019	Weekly	500	1	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	3
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Office of Environment & Heritage	12/05/2017	01/01/2002	None planned	1000	-	-	-
Mining Subsidence Districts	NSW Department of Finance, Services & Innovation	12/07/2019	12/07/2019	Quarterly	1000	0	0	0
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning and Environment	22/11/2019		Weekly	1000	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning and Environment	22/11/2019	08/11/2019	Weekly	1000	1	3	87
Commonwealth Heritage List	Australian Government Department of the Environment and Energy - Heritage Branch	16/01/2019	31/07/2018	Unknown	1000	0	0	0
National Heritage List	Australian Government Department of the Environment and Energy - Heritage Branch	16/01/2019	28/09/2018	Unknown	1000	0	0	0
State Heritage Register - Curtilages	NSW Office of Environment & Heritage	08/11/2019	09/11/2018	Quarterly	1000	0	0	2
Environmental Planning Instrument Heritage	NSW Department of Planning and Environment	22/11/2019	08/11/2019	Weekly	1000	0	1	83
Bush Fire Prone Land	NSW Rural Fire Service	28/08/2019	03/06/2019	Quarterly	1000	0	0	0

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Native Vegetation of the Sydney Metropolitan Area	NSW Office of Environment & Heritage	01/03/2017	16/12/2016	As required	1000	0	1	1
Ramsar Wetlands of Australia	Commonwealth of Australia Department of the Environment	08/10/2014	24/06/2011	As required	1000	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	0
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	0
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	28/11/2019	28/11/2019	Weekly	10000	-	-	-

Site Diagram

40-76 William Street, Leichhardt, NSW 2040

Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 6881m²

Total Perimeter: 377m

Scale: 0 15 30 Meters

Data Sources: Aerial Imagery: © Aerometrex Pty Ltd

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

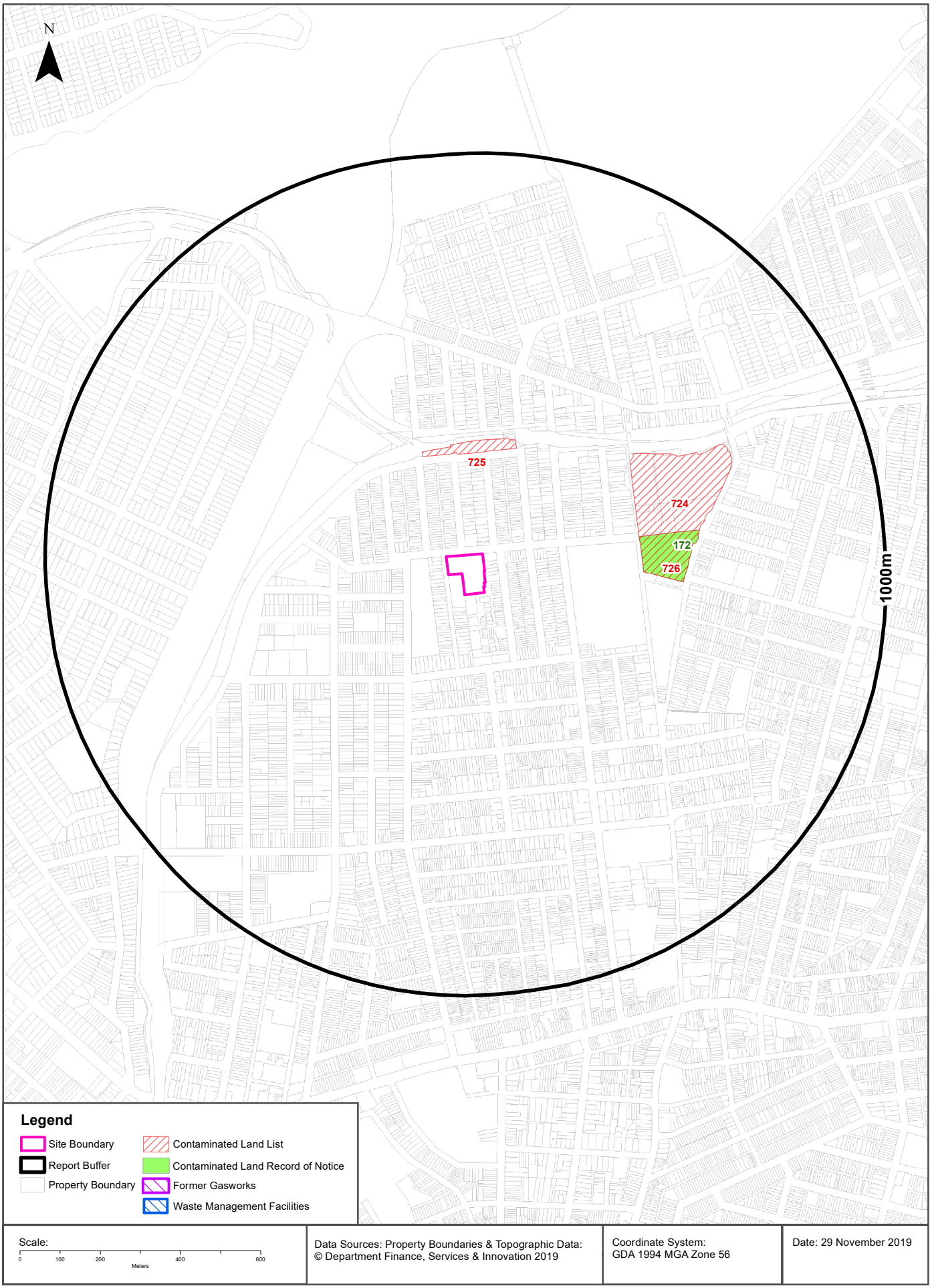
Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Coordinate System: GDA 1994 MGA Zone 56

Date: 28 November 2019

Contaminated Land & Waste Management Facilities

40-76 William Street, Leichhardt, NSW 2040



Contaminated Land & Waste Management Facilities

40-76 William Street, Leichhardt, NSW 2040

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist (m)	Direction
725	RailCorp Leichhardt	7 Darley Road	Leichhardt	Other Industry	Regulation under CLM Act not required	Current EPA List	Premise Match	252m	North
726	SRA Land	10-11 Balmain Road	Leichhardt	Other Industry	Contamination formerly regulated under the CLM Act	Current EPA List	Premise Match	392m	East
724	Leichhardt Bus Depot Area E	240 Balmain Road, corner City West LINK	Leichhardt	Other Industry	Regulation under CLM Act not required	Current EPA List	Premise Match	392m	East

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Contaminated Land & Waste Management Facilities

40-76 William Street, Leichhardt, NSW 2040

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
172	SRA Land	10-11 Balmain Road	Leichhardt	5 former	3177	Premise Match	392m	East

Contaminated Land Records of Notice Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority
Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit
http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm

Former Gasworks

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist (m)	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

PFAS Investigation Programs

40-76 William Street, Leichhardt, NSW 2040

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Id	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Defence PFAS Investigation & Management Program

Sites being investigated or managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation & Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

40-76 William Street, Leichhardt, NSW 2040

Defence 3 Year Regional Contamination Investigation Program

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

EPA Other Sites with Contamination Issues

40-76 William Street, Leichhardt, NSW 2040

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

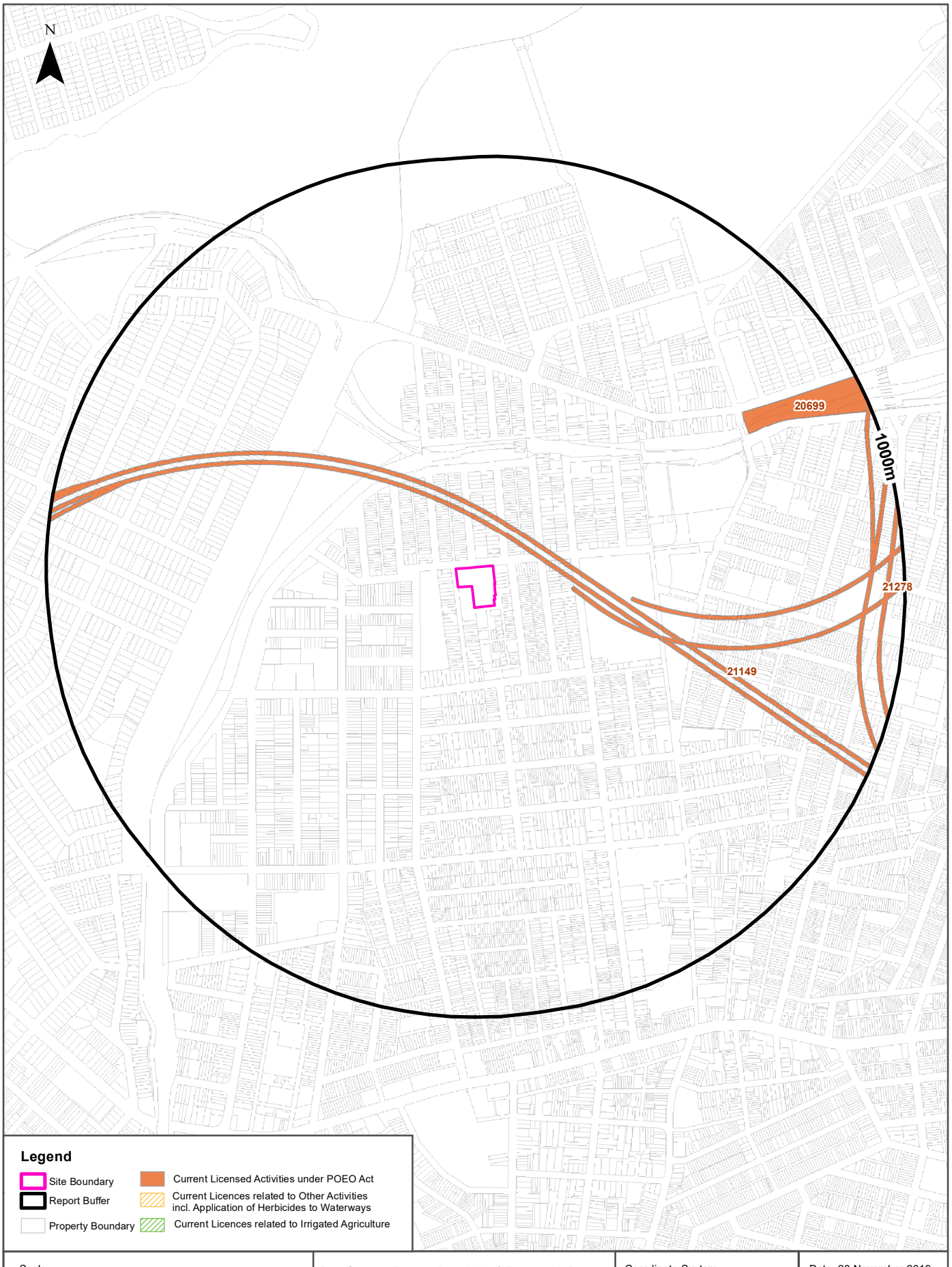
Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Current EPA Licensed Activities

40-76 William Street, Leichhardt, NSW 2040



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2019

Coordinate System:
GDA 1994 MGA Zone 56

Date: 28 November 2019

EPA Activities

40-76 William Street, Leichhardt, NSW 2040

Licensed Activities under the POEO Act 1997

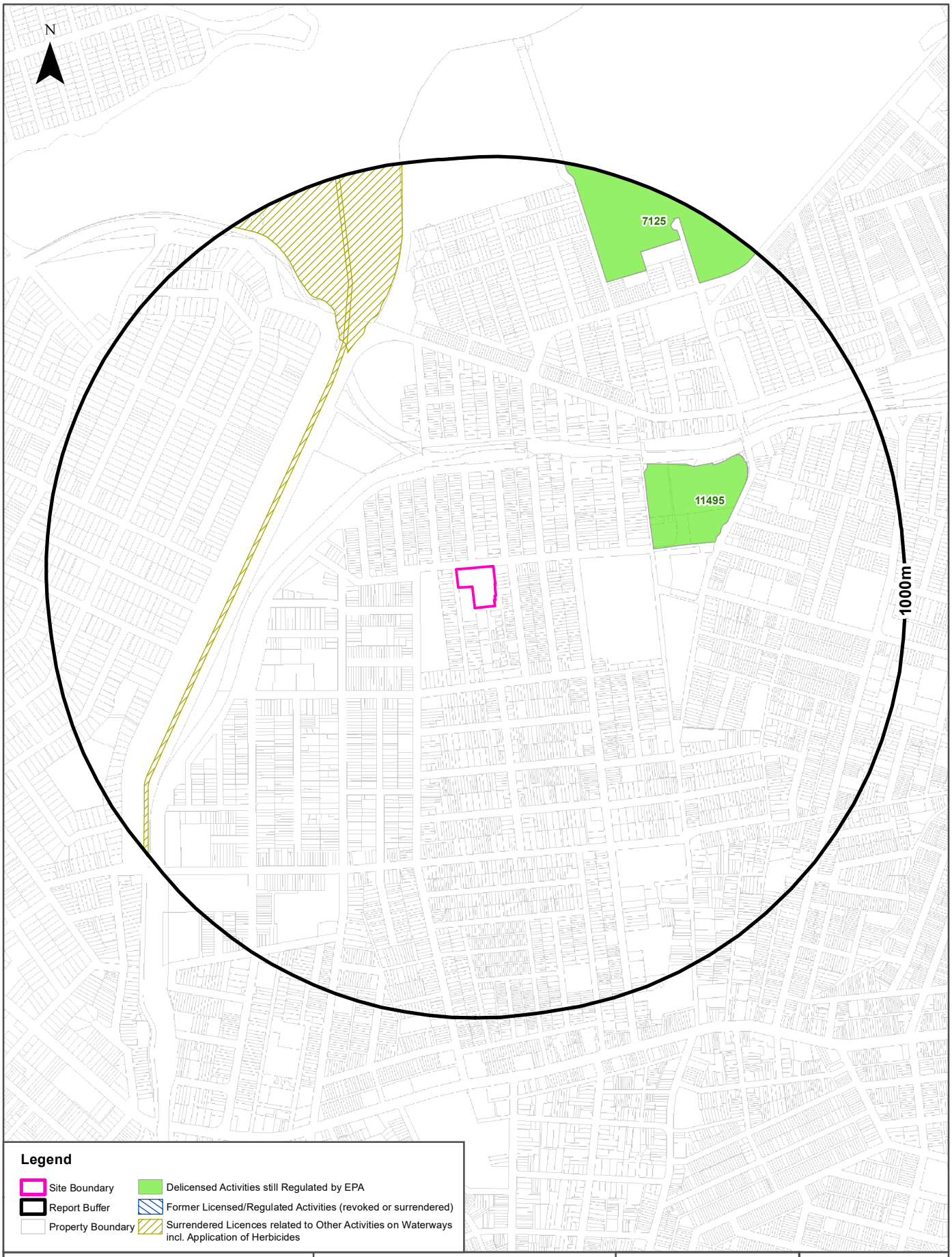
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
21149	LENDLEASE ENGINEERING PTY LIMITED		WestConnex between M4 East at Haberfield and the New M5 at St. Peters, MARRICKVILLE, NSW 2204		Road Construction	Road Match	75m	North West
21278	JOHN HOLLAND PTY LTD		WestConnex between the M4-M5 Mainline Tunnels and Rozelle, ROZELLE, NSW 2039		Road construction	Road Match	185m	East
20699	ACCIONA INFRASTRUCTURE AUSTRALIA PTY LTD	CBD and South East Light Rail	CBD and South East Light Rail Alignment and Ancillary Sites	SYDNEY	Land-based extractive activity	Network of Features	702m	North East

POEO Licence Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Delicensed & Former Licensed EPA Activities

40-76 William Street, Leichhardt, NSW 2040



EPA Activities

40-76 William Street, Leichhardt, NSW 2040

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
11495	STATE TRANSIT AUTHORITY OF NSW	LEICHHARDT DEPOT	Cnr William & Derbyshire Streets	LEICHHARDT	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	392m	East
7125	SYDNEY SOUTH WEST AREA HEALTH SERVICE	THE ROZELLE HOSPITAL	CNR GLOVER & CHURCH STREETS	LEICHHARDT	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	747m	North East

Delicensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

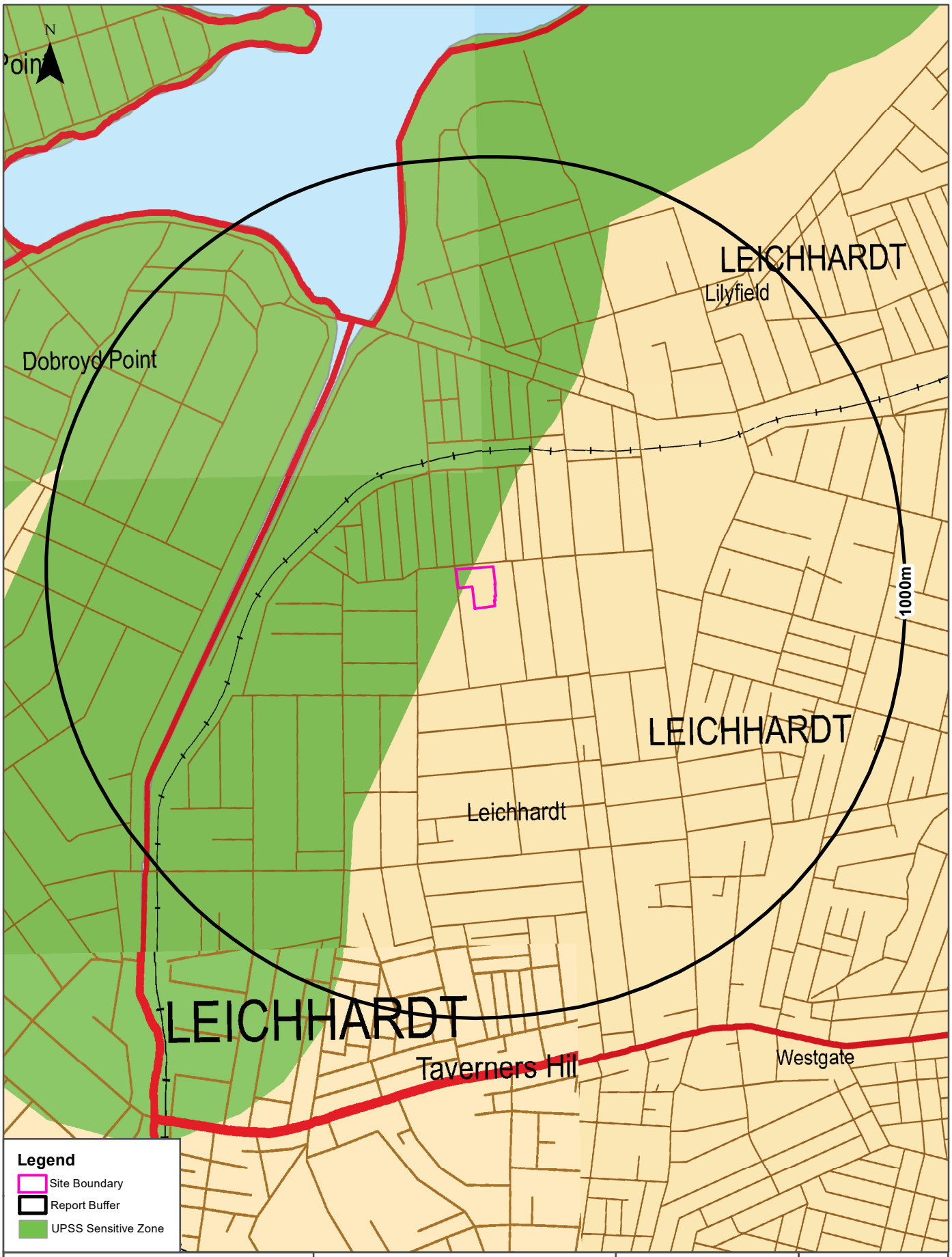
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	463m	-
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	463m	-
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	463m	-

Former Licensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

UPSS Sensitive Zones

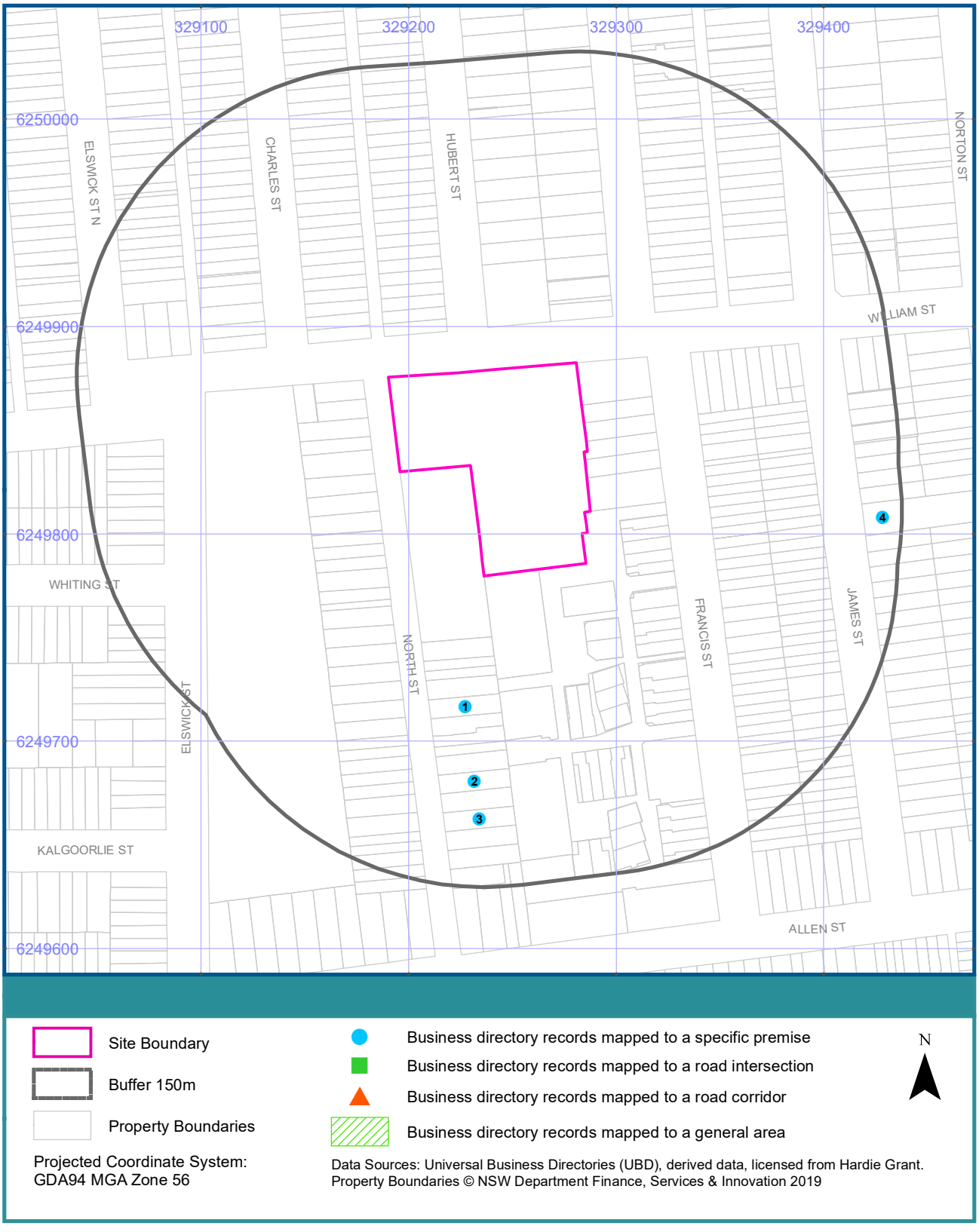
40-76 William Street, Leichhardt, NSW 2040



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1991 Business to Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1991 Business to Business Directory Records
Premise or Road Intersection Matches

Records from the 1991 UBD Business to Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Scientific Apparatus Mfrs &/or Imps &/or Dists	Bailey Arthur Pty Ltd, 21 North St Leichhardt 2040	61631	Premise Match	57m	South
	Medical Equipment &/or Repairs	Bailey, Arthur Pty Ltd, 21 North St. Leichhardt 2040	51484	Premise Match	57m	South
2	Signs Neon &/or Illuminated	Signtime (Aust.) Pty Ltd, 11 North St Leichhardt 2040	62606	Premise Match	94m	South
3	Security Doors &/or Windows &/or Grilles	Sydney Crime Prevention Hardware Pty. Ltd, 7 North St., Leichhardt. 2040	61887	Premise Match	112m	South
4	Gasket &/or Packings Mfrs &/or Dists	Associated Gaskets Pty Ltd, 256 Norton St., Leichhardt. 2040	47525	Premise Match	131m	East

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1991 Business to Business Directory Records
Road or Area Matches

Records from the 1991 UBD Business to Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
	No records in buffer				

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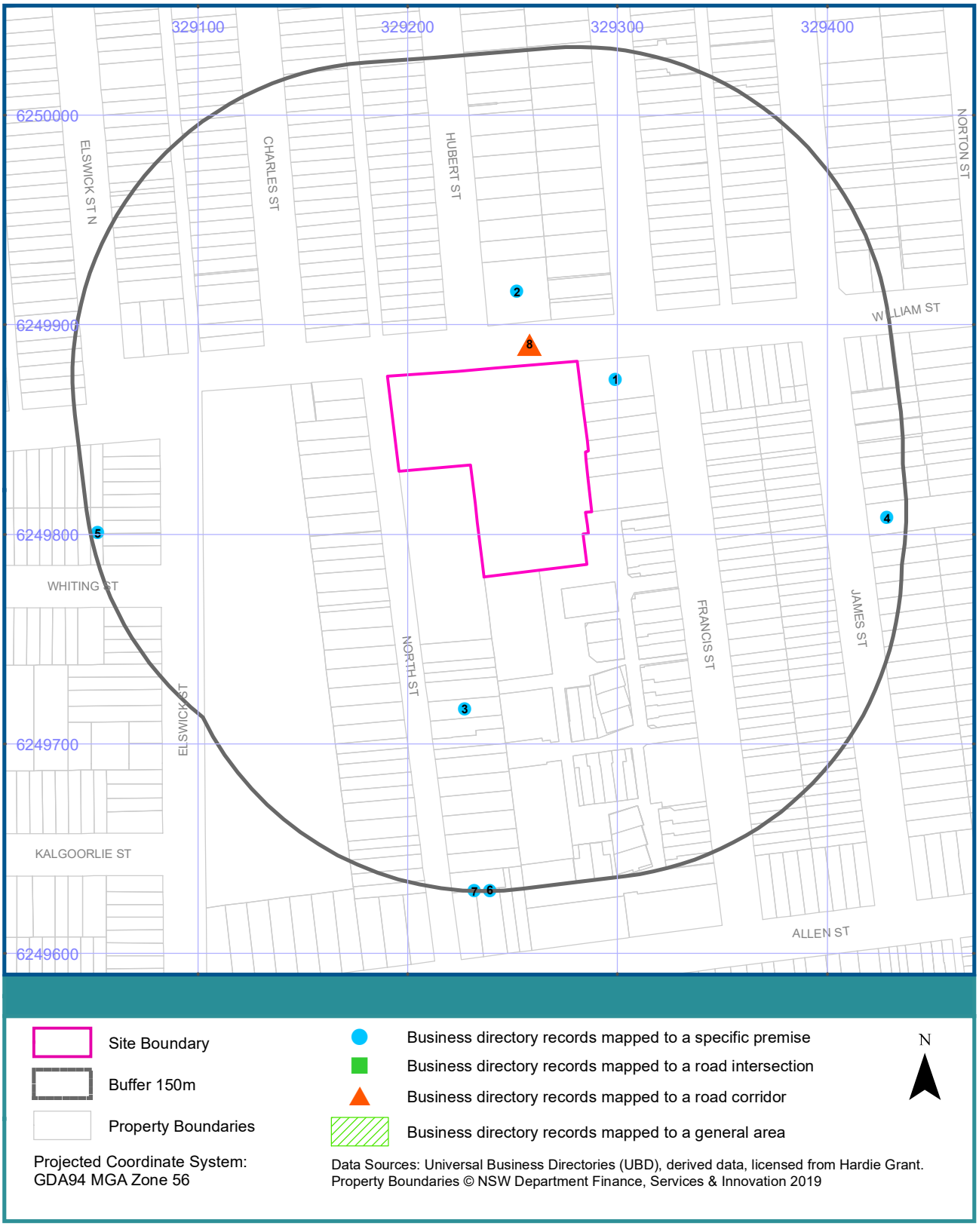
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1986 Business to Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1986 Business to Business Directory Records
Premise or Road Intersection Matches

Records from the 1986 UBD Business to Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	CYCLE MFRS.	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040	21194	Premise Match	0m	North East
	GOLF BUGGY MFRS.	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040	40023	Premise Match	0m	North East
	TOY IMPS. &/OR W/SALERS.	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040	94666	Premise Match	0m	North East
	TOY MFRS. &/OR DISTS.	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040	94714	Premise Match	0m	North East
2	FURNITURE-GENERAL-MFRS. &/OR W/SALERS.	Star Furniture, 5 Hubert St., Leichhardt 2040	37582	Premise Match	20m	North
3	VETERINARY SUPPLIES &/OR INSTRUMENTS - RETAIL.	Bailey, Arthur Pty. Ltd. 21 North St., Leichhardt 2040	97268	Premise Match	57m	South
	MEDICAL EQUIPMENT &/OR SUPPLIES MFRS. &/OR IMPS. &/OR DISTS.	Bailey, Arthur Pty. Ltd., 21 North St., Leichhardt. 2040	53288	Premise Match	57m	South
	THERMOMETER MFRS. &/OR DISTS.	Bailey, Arthur Pty. Ltd., 21 North St., Leichhardt. 2040	93156	Premise Match	57m	South
	SCIENTIFIC APPARATUS MFRS. &/OR IMPS. &/OR DISTS.	Balley Arthur Pty, Ltd., 21 North St., Leichhardt. 2040	85024	Premise Match	57m	South
4	GASKET MFRS. &/OR SUPPLIERS.	Associated Gaskets, 256 Norton St., Leichhardt. 2040	38562	Premise Match	131m	East
	INSULATING MATERIALS MFRS. &/OR DISTS. &/OR SUPPLIERS.	Associated Gaskets, 256 Norton St., Leichhardt. 2040	48572	Premise Match	131m	East
5	ENGINEERS SUPPLIES	Moyle, R. D. & Sons Pty. Ltd., 1 Whiting St., Leichhardt. 2040	31445	Premise Match	142m	West
	MACHINERY DEALERS-SECONDHAND.	Moyle, R. D. & Sons Pty. Ltd., 1 Whiting St., Leichhardt. 2040	52033	Premise Match	142m	West
6	PLASTIC MFRS. &/OR MOULDERS MACHINERY MFRS. &/OR DISTS.	Consolidated Ultrasonic (A'asia) Pty. Ltd. 77 Allen Street, Leichhardt 2040	74756	Premise Match	148m	South
	PLASTIC MFRS. &/OR MOULDERS MACHINERY MFRS. &/OR DISTS.	Consolidated Ultrasonics (Asia) Pty. Ltd., 77 Allen St., Leichhardt. 2040	74758	Premise Match	148m	South
	CLEANING EQUIPMENT SUPPLIES &/OR REPAIRS.	Consolidated Ultrasonics (Asia) Pty. Ltd., 77 Allen St., Leichhardt.2040	15438	Premise Match	148m	South
	CLEANSER &/OR CLEANING PREPARATIONS MFRS. &/OR DISTS.	Consolidated Ultrasonics (Asia) Pty. Ltd., 77 Allen St., Leichhardt2040	15487	Premise Match	148m	South
7	BUTCHERS-RETAIL.	Elvy, T., 79 Allen St., Leichhardt. 2040	9863	Premise Match	150m	South

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1986 Business to Business Directory Records
Road or Area Matches

Records from the 1986 UBD Business to Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
8	WOODWORKERS &/OR TURNERS.	Premier Woodworking Co. Pty, Ltd., William St., Leichhardt. 2040	99880	Road Match	0m
	DOWEL MFRS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	24719	Road Match	0m
	WOODWARE MFRS. &/OR DISTS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	99860	Road Match	0m

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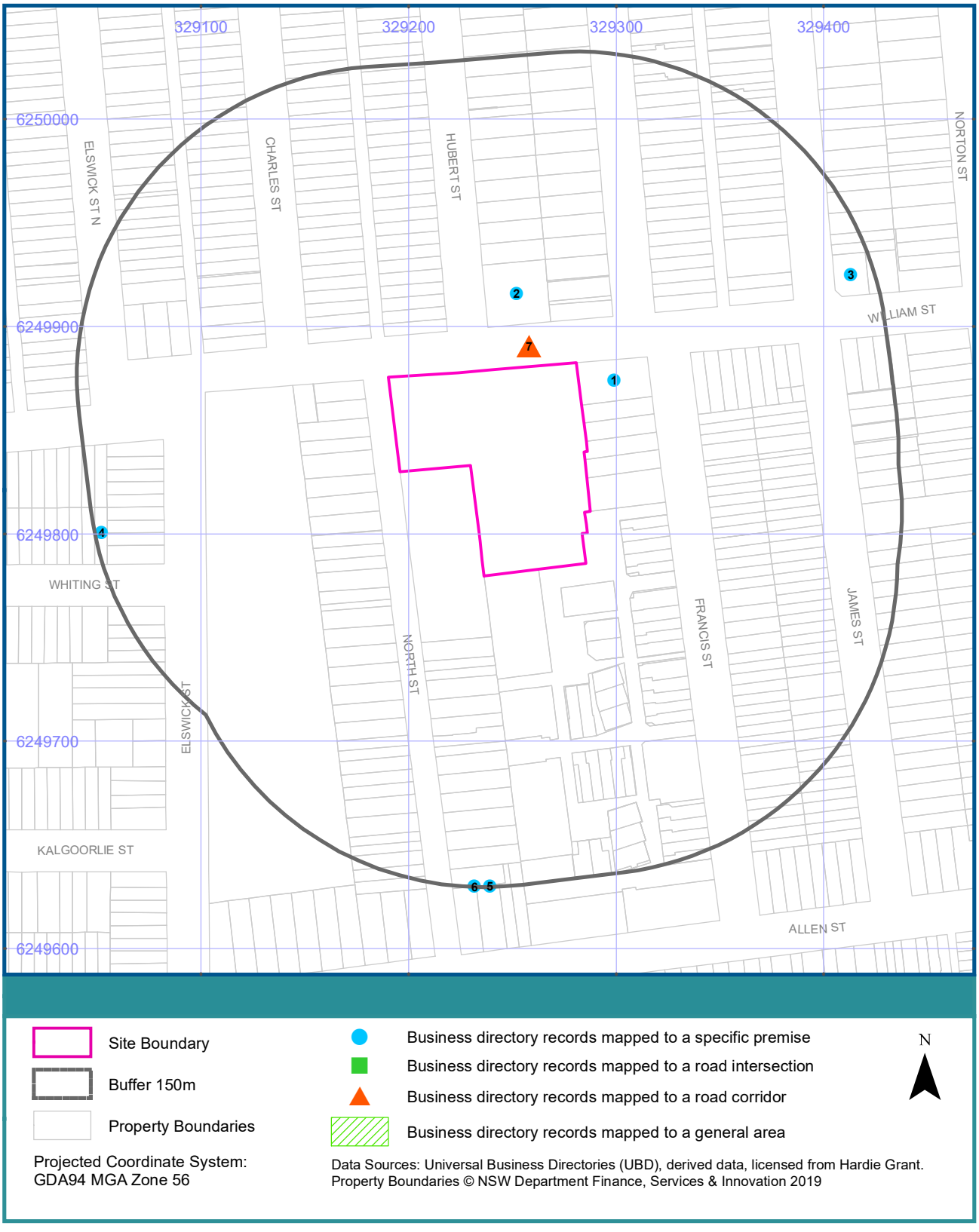
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1982 Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1982 Business Directory Records
Premise or Road Intersection Matches

Records from the 1982 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	CYCLE MFRS. (C9360)	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040.	18871	Premise Match	0m	North East
	GOLF BUGGY MFRS. (G5610)	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040.	36984	Premise Match	0m	North East
	TOY IMPS. &/OR W/SALERS. (T6225)	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040.	81300	Premise Match	0m	North East
	TOY MFRS. &/OR DISTS. (T6250)	T & I Industries Pty. Ltd., 24 William St., Leichhardt. 2040.	81341	Premise Match	0m	North East
2	FURNITURE-GENERAL-MFRS.&/OR W/SALERS. (F7675)	Star Furniture, 5 Hubert St., Leichhardt. 2040.	35121	Premise Match	20m	North
3	BUTCHERS - WHOLESALE. (B8120)	Brisby, R. A. Pty. Ltd., 61 James St., Leichhardt 2040.	11874	Premise Match	130m	North East
	BUTCHERS - WHOLESALE. (B8120)	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt. 2040.	11926	Premise Match	130m	North East
4	ENGINEERS SUPPLIES. (E8370)	Moyle, R. D. & Sons Pty. Ltd., 1 Whiting St., Leichhardt. 2040.	29474	Premise Match	142m	West
	MACHINERY DEALERS-SECONDHAND. (M0140)	Moyle, R. D. & Sons Pty. Ltd., 1 Whiting St., Leichhardt. 2040.	45749	Premise Match	142m	West
5	CLEANSER &/OR CLEANING PREPARATIONS MFRS. &/OR DISTS. (C4965)	Consolidated Ultrasonics (Asia) Pty. Ltd., 77 Allen St., Leichhardt 2040.	16277	Premise Match	148m	South
	PLASTIC MFRS. &/OR MOULDERS MACHINERY MFRS. &/OR DISTS.(P6100)	Consolidated Ultrasonics (Asia) Pty. Ltd., 77 Allen St., Leichhardt. 2040.	64982	Premise Match	148m	South
6	BUTCHERS - RETAIL. (B8040)	Elvy, T., 79 Allen St., Leichhardt. 2040.	10811	Premise Match	150m	South

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1982 Business Directory Records
Road or Area Matches

Records from the 1982 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
7	DOWEL MFRS. (D6280)	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040.	22015	Road Match	0m
	WOODWARE MFRS. &/OR DISTS.(W7500)	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040.	85267	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
7	WOODWORKERS &/OR TURNERS.(W7720)	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040.	85293	Road Match	0m

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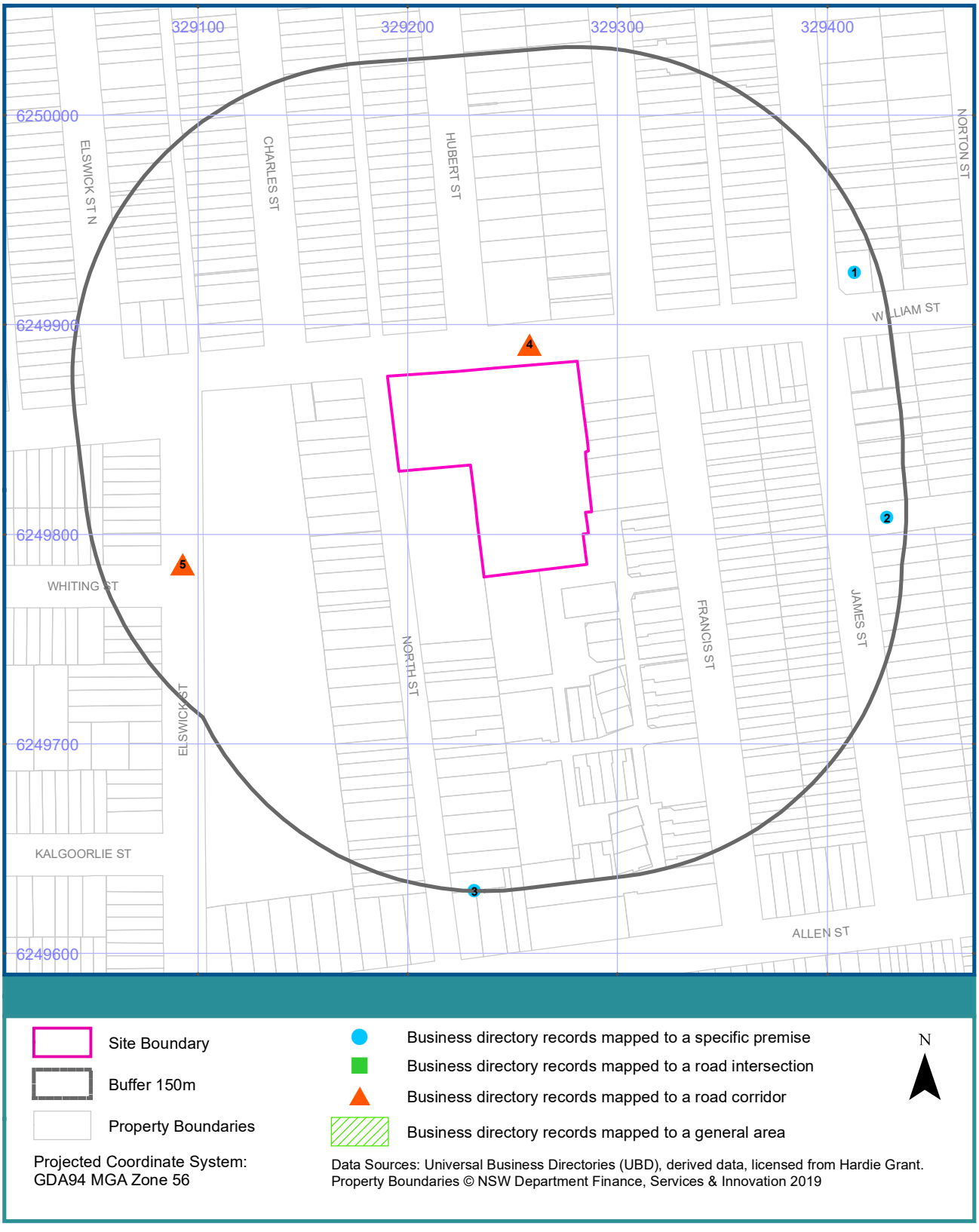
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1978 Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1978 Business Directory Records
Premise or Road Intersection Matches

Records from the 1978 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	BUTCHERS - WHOLESALE.	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt. 2040	10216	Premise Match	130m	North East
2	FELT MFRS. &/OR W/SALERS.	Associated Gaskets Pty. Ltd., 258 Norton St., Leichhardt. 2040	27197	Premise Match	131m	East
	GASKET MFRS	Associated Gaskets Pty. Ltd., 258 Norton St., Leichhardt. 2040	32522	Premise Match	131m	East
	WASHER MFRS.	Associated Gaskets Pty. Ltd., 258 Norton St., Leichhardt.2040	73832	Premise Match	131m	East
3	BUTCHERS-RETAIL.	Elvy, T., 79 Allen St., Leichhardt. 2040	9135	Premise Match	150m	South

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1978 Business Directory Records
Road or Area Matches

Records from the 1978 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
4	DOWEL MFRS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	19446	Road Match	0m
	WOODWARE MFRS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	75138	Road Match	0m
	WOODWORKERS &/OR TURNERS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	75172	Road Match	0m
5	FOOTWEAR MFRS. -BOOTS &/OR SHOES.	Robins, J. & Sons Pty. Ltd. 234 Elswick St., Leichhardt 2040	29133	Road Match	91m
	FOOTWEAR MFRS. -BOOTS &/OR SHOES.	Robins, J. & Sons Pty. Ltd., 234 Elswick St, Leichhardt. 2040	29174	Road Match	91m
	BAKERS-BREAD.	Sydney Bakery, 7 Elswick St., Leichhardt. 2040	4261	Road Match	91m
	CAKE & PASTRY MFRS. WHOLESALE.	Top Variety Cakes Pty. Ltd., 7 Elswick St., Leichhardt. 2040	10690	Road Match	91m

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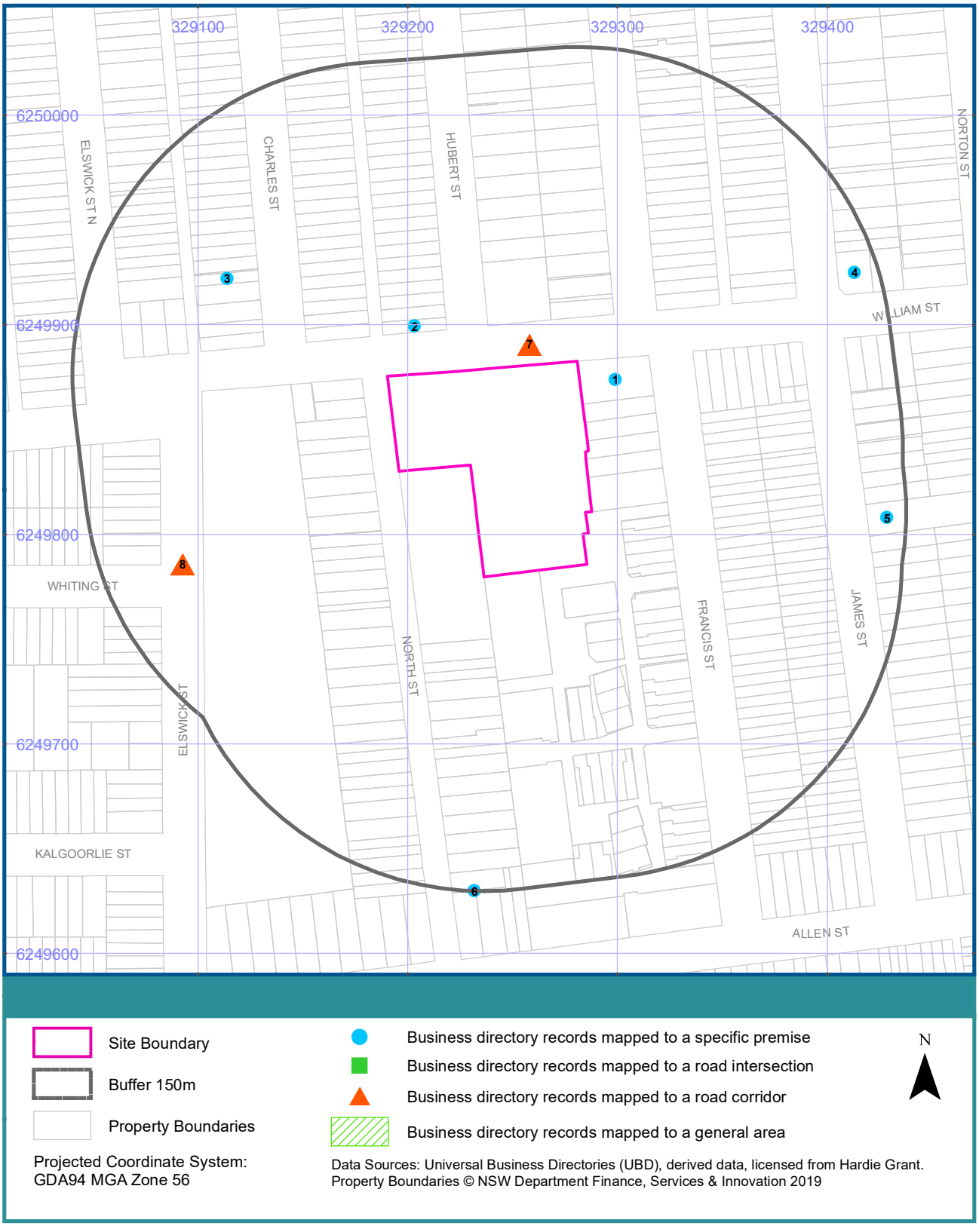
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1975 Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1975 Business Directory Records
Premise or Road Intersection Matches

Records from the 1975 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	FURNITURE - NURSERY - MFRS. &/OR W/SALERS.	Cyclops Industries Pty Ltd., 24 William St., Leichhardt. 2040	37222	Premise Match	0m	North East
	PLASTIC MFRS. &/OR MOULDERS.	Cyclops Industries Pty. Ltd., 24 William St., Leichhardt. 2040	68096	Premise Match	0m	North East
	PRAM & STROLLER MFRS. &/OR DISTS. &/OR REPAIRS.	Cyclops Industries Pty. Ltd., 24 William St., Leichhardt. 2040	69087	Premise Match	0m	North East
	TOY IMPS. &/ORW/SALERS.	Cyclops Industries Pty. Ltd., 24 William St., Leichhardt. 2040	84472	Premise Match	0m	North East
	TOY MFRS. &/OR DISTS.	Cyclops Industries Pty. Ltd., 24 William St., Leichhardt. 2040	84542	Premise Match	0m	North East
	HOLDING COMPANIES.	Raleigh Industries (Aust.) Ltd., 24 William St., Leichhardt. 2040	42258	Premise Match	0m	North East
2	GROCERS-RETAIL	Stephens. R., 2 Hubert St., Leichhardt. 2040	39898	Premise Match	20m	North West
3	MIXED BUSINESSES.	No. 10 Mixed., 10 Charles St., Leichhardt. 2040	55366	Premise Match	76m	North West
4	BUTCHERS - WHOLESALE	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt 2040	11562	Premise Match	130m	North East
5	FELT MFRS. &/OR W/SALERS.	Associated Gaskets Pty Ltd., 258 Norton St., Leichhardt. 2040.	31395	Premise Match	131m	East
	GASKET MFRS.	Associated Gaskets Pty. Ltd., 258 Norton St., Leichhardt. 2040	37784	Premise Match	131m	East
	WASHER MFRS.	Associated Gaskets Pty. Ltd., 258 Norton St., Leichhardt. 2040	86501	Premise Match	131m	East
	TOY IMPS. &/ORW/SALERS.	Roebuck, F & Sons Pty. Ltd., 256 Norton St., Leichhardt. 2040	84505	Premise Match	131m	East
	WOODWARE MFRS.	Roebuck, F & Sons Pty. Ltd., 256 Norton St., Leichhardt. 2040	87698	Premise Match	131m	East
6	BUTCHERS-RETAIL	Elvy. T., 79 Allen St., Leichhardt. 2040	10330	Premise Match	150m	South

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1975 Business Directory Records
Road or Area Matches

Records from the 1975 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
7	CABINETMAKERS.	Dickinson, Chas. & Sons Pty. Ltd., William St., Leichhardt 2040	11653	Road Match	0m
	FURNITURE-GENERAL-MFRS. &/OR W/SALERS.	Dickinson, Chas. & Sons Pty. Ltd., William St., Leichhardt. 2040	36692	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
7	BILLIARD TABLES & ACCESSORIES MFRS. DISTS. &/OR REPAIRERS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	6276	Road Match	0m
	DOWEL MFRS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	22403	Road Match	0m
	WOODWARE MFRS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	87696	Road Match	0m
	WOODWORKERS &/OR TURNERS.	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt. 2040	87737	Road Match	0m
8	FOOTWEAR MFRS.-BOOTS &/OR SHOES.	Robins, J. & Son Pty. Ltd., 234 Elswick St, Leichhardt. 2040	33778	Road Match	91m
	FOOTWEAR MFRS.-BOOTS &/OR SHOES.	Robins, J. & Sons Pty. Ltd. 234 Elswick St, Leichhardt. 2040	33731	Road Match	91m

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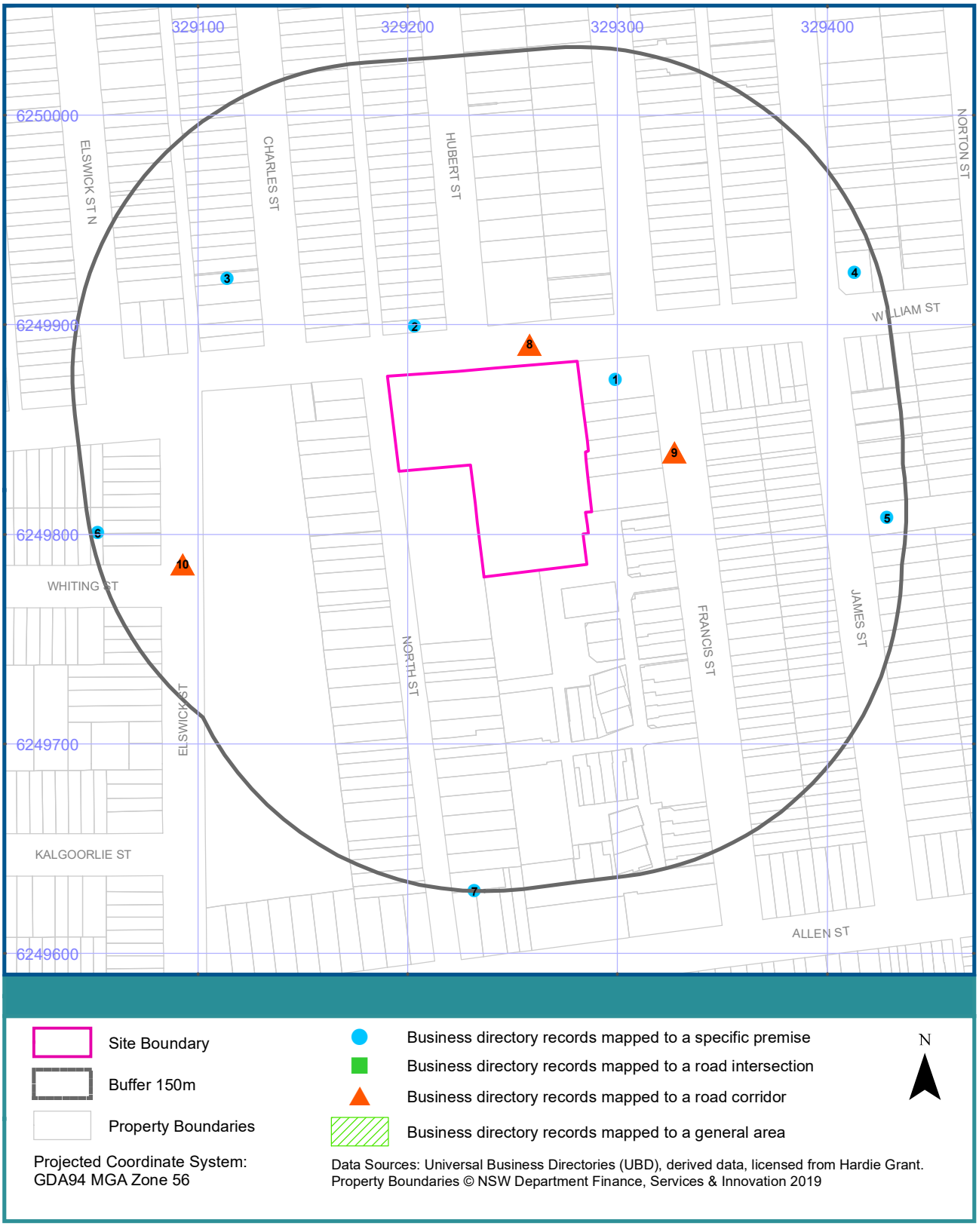
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1970 Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1970 Business Directory Records
Premise or Road Intersection Matches

Records from the 1970 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	PRAM/STROLLER MFRS. (P738)	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	351491	Premise Match	0m	North East
2	GROCERS-RETAIL (G655)	Allen, R. & M., 2 Hubert St., Leichhardt	312144	Premise Match	20m	North West
3	MIXED BUSINESSES (M408)	Charles Street Store., 10 Charles St., Leichhardt	332282	Premise Match	76m	North West
4	BUTCHERS-WHOLESALE (B868)	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt	274959	Premise Match	130m	North East
5	GASKET MANUFACTURERS (G135)	Associated Gaskets Pty. Ltd., 258 Norton St., Leichhardt, 2040	310492	Premise Match	131m	East
	TOY MANUFACTURERS (T545)	Roebuck, F.& Sons Pty. Ltd., 256 Norton St., Leichhardt	370458	Premise Match	131m	East
	WOODWARE MFRS. (W395)	Roebuck, F.& Sons Pty. Ltd., 256 Norton St., Leichhardt	375006	Premise Match	131m	East
6	LAWN MOWER SALES/SERVICE (L310)	Grahame, Alex Pty. Ltd., 1 Whiting St., Leichhardt	322781	Premise Match	142m	West
	LAWN MOWERS - MOTOR-POWERED - IMPORTERS &/OR DISTRIBUTORS &/OR MANUFACTURERS	Grahame, Alex Pty. Ltd., 1 Whiting St., Leichhardt	322856	Premise Match	142m	West
	LAWN MOWERS-MANUAL-MFRS. &/OR DISTS. (L280)	Grahame, Alex Pty. Ltd., 1 Whiting St., Leichhardt	322840	Premise Match	142m	West
	LAWN MOWER REPAIRERS/SHARPENERS (L300)	Grahame, Alex. Pty. Ltd., 1 Whiting St., Leichhardt	322726	Premise Match	142m	West
7	BUTCHERS-RETAIL (B860)	Elvy, Ted., 79 Allan St., Leichhardt	273552	Premise Match	150m	South

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1970 Business Directory Records
Road or Area Matches

Records from the 1970 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
8	FURNITURE-NURSERY-MFRS.&/OR WHOLESALERS (F760)	Cyclops Tri-Ang (Aust.) Ltd., William St., Leichhardt 2040	309774	Road Match	0m
	PRAM/STROLLER REPAIRS (P740)	Cyclops Tri-Ang (Aust.) Ltd., William St., Leichhardt, 2040	351499	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
8	TOY IMPORTERS &/OR WHOLESALERS(T540)	Cyclops Tri-Ang (Aust.) Ltd., William St., Leichhardt, 2040	370339	Road Match	0m
	TOY MANUFACTURERS (T545)	Cycloys Tri-Ang (Aust.) Ltd., William St., Leichardt, 2040	370423	Road Match	0m
	CABINETMAKERS (C006)	Dickinson, Chas & Sons Pty. Ltd., William St., Leichhardt, 2040	275119	Road Match	0m
	FURNITURE-GENERAL-MFRS. &/OR WHOLESALERS (F730)	Dickinson, Chas.& Sons Pty. Ltd., William St., Leichhardt, 2040	309195	Road Match	0m
	DOWEL MANUFACTURERS (D510)	Premier Woodworking Co. Pty. Ltd., William St., Leichhardt	290191	Road Match	0m
9	MACHINE TOOL MFRS./IMPORTERS/DISTRIBUTORS (M020)	Heine, John & Son Pty. Ltd., Francis St., Leichhardt, 2040.	324003	Road Match	28m
	ENGINEERS-GENERAL &/OR MFRG.&/OR MECHANICAL (E615)	Heine, John & Son Pty. Ltd., Francis St., Leichhardt.	299208	Road Match	28m
	GUILLOTINE BLADE/SHEAR MFRS.(G670)	Heine, John & Son Pty. Ltd., Francis St., Leichhardt.	313273	Road Match	28m
	TOY IMPORTERS &/OR WHOLESALERS(T540)	Trian Moldex Ltd., Francis St., Leichardt, 2040	370402	Road Match	28m
	TOY MANUFACTURERS (T545)	Trian Moldex Ltd., Francis St., Leichardt, 2040	370464	Road Match	28m
	PLASTIC MFRS. &/OR MOULDERS(P580)	Trian Moldex Ltd., Francis St., Leichhardt, 2040	349946	Road Match	28m
10	FOOTWEAR MFRS.-BOOTS/SHOES (F460)	Robins, J.& Sons Pty. Ltd., 234 Elswick St., Leichhardt, 2040	305349	Road Match	91m
	CAKE SHOPS & PASTRYCOOKS (C045)	Yaager, P and Son., 7 Elswick St., Leichhardt	276999	Road Match	91m

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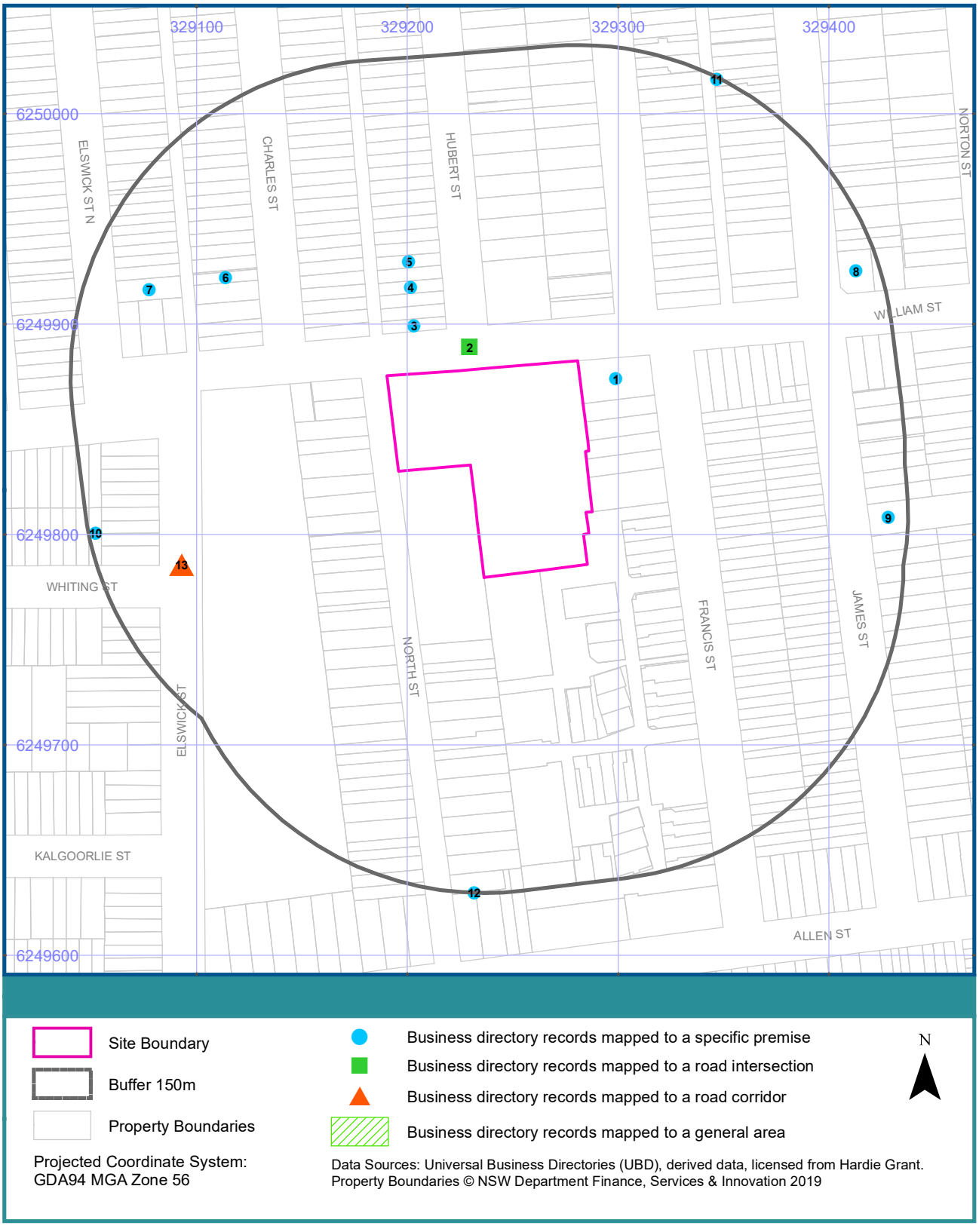
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1965 Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1965 Business Directory Records
Premise or Road Intersection Matches

Records from the 1965 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Furniture - Nursery - Mfrs. &/or Wholesalers	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	93831	Premise Match	0m	North East
	Pram Manufacturers	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	135660	Premise Match	0m	North East
	Pram/Stroller Repairs	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	135669	Premise Match	0m	North East
	Toy Mfrs.	Cyclops & Lines Bros. (Aust.) Ltd., Williams & Francis Sts., Leichhardt	153268	Premise Match	0m	North East
2	Furniture - General - Mfrs. &/or Wholesalers	Dickinson, Chas & Son Pty. Ltd., Cnr. William & Hubert Sts., Leichhardt	93237	Road Intersection	11m	North
	Cabinetmakers	Dickinson, Chas. & Son Pty. Ltd., Cnr. William & Hubert Sts., Leichhardt	59901	Road Intersection	11m	North
3	Grocers - Retail	Allen, R. & M., 2 Hubert St., Leichhardt	96144	Premise Match	20m	North West
4	Milk Vendors	Fantham, Miss Z., 8 Hubert St., Leichhardt	115843	Premise Match	38m	North West
	Sandwich & Luncheon Shops	Hubert Street Sandwich Shop., 8 Hubert St., Leichhardt	141987	Premise Match	38m	North West
5	Mixed Businesses	Hubert St. Mixed Store, 12 Hubert St., Leichhardt	117602	Premise Match	50m	North West
6	Mixed Businesses	Charles Street Store, 10 Charles St., Leichhardt	116896	Premise Match	76m	North West
7	Mixed Businesses	Osborne, Mrs. A., 217 Elswick St., Leichhardt	118269	Premise Match	104m	North West
8	Butchers' - Wholesale	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt	59710	Premise Match	130m	North East
9	Broom & Brush - Sweeping - Mfrs.	Gem Brushware (Aust.) Pty. Ltd., 258 Norton St., Leichhardt	54318	Premise Match	131m	East
	Brushware Mfrs. - Industrial	Gem Brushware (Aust.) Pty. Ltd., 258 Norton St., Leichhardt	54378	Premise Match	131m	East
	Toy Mfrs.	Roebuck, F. & Sons Pty, Ltd., 256 Norton St., Leichhardt	153300	Premise Match	131m	East
	Woodware Mfrs.	Roebuck, F. & Sorts Pty. Ltd., 256 Norton St., Leichhardt	157829	Premise Match	131m	East
10	Lawn Mower Repairers	Grahame, A. Pty. Ltd., 1-7 Whiting St., Leichhardt	107274	Premise Match	142m	West
	Lawn Mower Sales/Service	Grahame, A. Pty. Ltd., 1-7 Whiting St., Leichhardt	107328	Premise Match	142m	West
	Lawn Mowers - Manual - Manufacturers	Grahame, A. Pty. Ltd., 1-7 Whiting St., Leichhardt	107223	Premise Match	142m	West
	Lawn Mowers - Motor Powered - Importers, Distributors &/or Manufacturers	Grahame, A. Pty. Ltd., 1-7 Whiting St.. Leichhardt	107240	Premise Match	142m	West
	Furniture - Garden & Ornamental - Mfrs. &/or Wholesalers	Grahame's Mowers & Hoists., 1-7 Whiting St., Leichhardt	93175	Premise Match	142m	West
11	Mixed Businesses	James St. Small Mixed, 100 James St., Leichhardt	117660	Premise Match	148m	North East
12	Butchers - Retail	Elvy Ted., 79 Allan St., Leichhardt	58263	Premise Match	150m	South

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1965 Business Directory Records
Road or Area Matches

Records from the 1965 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
13	Footwear Mfrs. - Boots/Shoes	Robins, J. and Sons Pty. Ltd., 234 Elswick St., Leichhardt	88661	Road Match	91m

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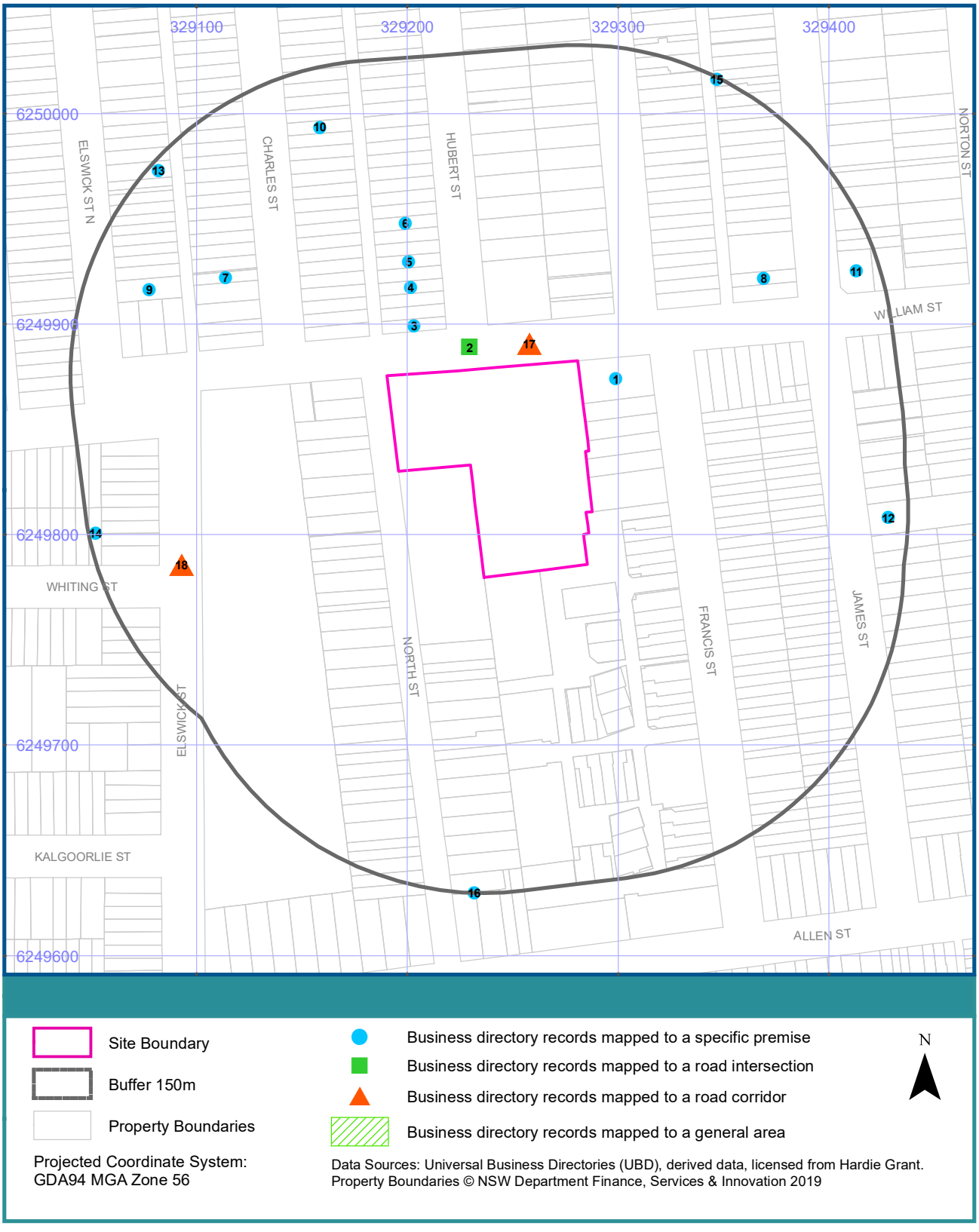
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1961 Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1961 Business Directory Records
Premise or Road Intersection Matches

Records from the 1961 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	FURNITURE-FOLD/CANVAS-MFRS. WHOLESALERS	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	317355	Premise Match	0m	North East
	FURNITURE-NURSERY-MFRS. &/OR WHOLESALERS	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	318046	Premise Match	0m	North East
	PRAM MANUFACTURERS	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	361683	Premise Match	0m	North East
	PRAM/STROLLER REPAIRS	Cyclops & Lines Bros. (Aust.) Ltd., William & Francis Sts., Leichhardt	361703	Premise Match	0m	North East
	TOY MANUFACTURERS	Cyclops & Lines Bros. (Aust.) Ltd., Williams & Francis Sts., Leichhardt	258769	Premise Match	0m	North East
2	FURNITURE-GENERAL-MFRS. &/OR WHOLESALERS	Dickinson, Charles & Sons Pty. Ltd., Cnr. William & Hubert Sts., Leichhardt	317477	Road Intersection	11m	North
3	GROCERS-RETAIL	Yates, G., 2 Hubert St., Leichhardt	321448	Premise Match	20m	North West
4	MILK VENDORS	Fantham, Miss Z., 8 Hubert St., Leichhardt	338640	Premise Match	38m	North West
	MIXED BUSINESS	Thompson, Mrs. I. E., 8 Hubert St., Leichhardt	342568	Premise Match	38m	North West
5	FRUITERERS/GREENGROCERS	Jones, K., 12 Hubert St., Leichhardt	315585	Premise Match	50m	North West
6	PLUMBERS, GASFITTERS/DRAINLAYERS	Johnson, J. C., 18 Hubert St., Leichhardt	360547	Premise Match	68m	North West
7	MIXED BUSINESS	Phillips, Mrs. J., 10 Charles St., Leichhardt	342092	Premise Match	76m	North West
8	BOOT & SHOE REPAIRERS	Cunningham, W. E., 68 James St., Leichhardt	274726	Premise Match	81m	North East
9	MIXED BUSINESS	Osborne, Mrs. A., 217 Elswick St., Leichhardt	342005	Premise Match	104m	North West
10	PLUMBERS, GASFITTERS/DRAINLAYERS	Elliott, G. F., 33 Charles St., Leichhardt	360414	Premise Match	117m	North West
11	BUTCHERS-WHOLESALE	Tripe Distributors Pty Ltd 61 James St., Leichhardt	281517	Premise Match	130m	North East
	BUTCHERS-WHOLESALE	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt	281518	Premise Match	130m	North East
12	BROOM & BRUSH MFRS.' SUPP.	Gem Brushware (Aust.) Pty. Ltd., 258 Norton St., Leichhardt	275997	Premise Match	131m	East
	BROOM & BRUSH-SWEEPING-MANUFACTURERS	Gem Brushware (Aust.) Pty. Ltd., 258 Norton St., Leichhardt	276018	Premise Match	131m	East
	BRUSHWARE MFRS.-INDUSTRIAL	Gem Brushware (Aust.) Pty. Ltd., 258 Norton St., Leichhardt	276083	Premise Match	131m	East
	BRUSHWARE MFRS.-PAINTERS'	Gem Brushware (Aust.) Pty. Ltd., 258 Norton St., Leichhardt	276106	Premise Match	131m	East
	TOY MANUFACTURERS	Roebuck, F. & Sons Pty. Limited, 256 Norton St., Leichhardt	258822	Premise Match	131m	East
	TIMBER MERCHANTS	Rosebuck, F. & Sons Pty. Limited, 256 Norton St., Leichhardt	257501	Premise Match	131m	East

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
12	WOODWARE MFRS	Rosebuck, F. & Sons Pty. Limited, 256 Norton St., Leichhardt	263555	Premise Match	131m	East
	WOODWORKERS/TURNERS	Rosebuck, F. & Sons Pty. Limited, 256 Norton St., Leichhardt	263658	Premise Match	131m	East
13	CLEANSER & CLEANING PREPARATION MFRS. &/OR DISTS.	Atomic Cleansing Products, 229 Elswick St., Leichhardt	288780	Premise Match	139m	North West
14	LAWN MOWER REPAIRERS/SHARPENERS	Grahame, A. Pty. Ltd., 1-7 Whiting St., Leichhardt	330796	Premise Match	142m	West
	LAWN MOWER SALES/SERVICE	Grahame, A. Pty. Ltd., 1-7 Whiting St., Leichhardt	330834	Premise Match	142m	West
	LAWN MOWERS—MANUAL-MANUFACTURERS	Grahame, A. Pty. Ltd., 1-7 Whiting St., Leichhardt	330893	Premise Match	142m	West
	LAWN MOWERS-MOTOR POWERED-IMPORTERS, DISTRIBUTORS &/OR MANUFACTURERS	Grahame, A. Pty. Ltd., 1-7 Whiting St., Leichhardt	330914	Premise Match	142m	West
15	MIXED BUSINESS	Sylvester, R. J. & P., 100 James St., Leichhardt	342518	Premise Match	148m	North East
16	BUTCHERS-RETAIL	Elvy, Ted, 79 Allan St., Leichhardt	280255	Premise Match	150m	South

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1961 Business Directory Records Road or Area Matches

Records from the 1961 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
17	CABINETMAKERS	Dickinson, Chas. & Son Pty. Ltd., William St., Leichhardt	281731	Road Match	0m
18	CARRIERS & CARTAGE CONTRACTORS	Greenwood, P. O., Elswick St., Leichhardt	284834	Road Match	91m
	FOOTWEAR MFRS.-BOOTS/SHOES	Robins J & Sons Pty Ltd., Elswick St., Leichhardt	312911	Road Match	91m
	FOOTWEAR MFRS.-BOOTS/SHOES	Robins, J. and Sons Pty. Ltd., 234 Elswick St., Leichhardt	312912	Road Match	91m
	CAKE SHOPS & PASTRYCOOKS	Yaager, P and Son, 7 Elswick St., Leichhardt	283414	Road Match	91m

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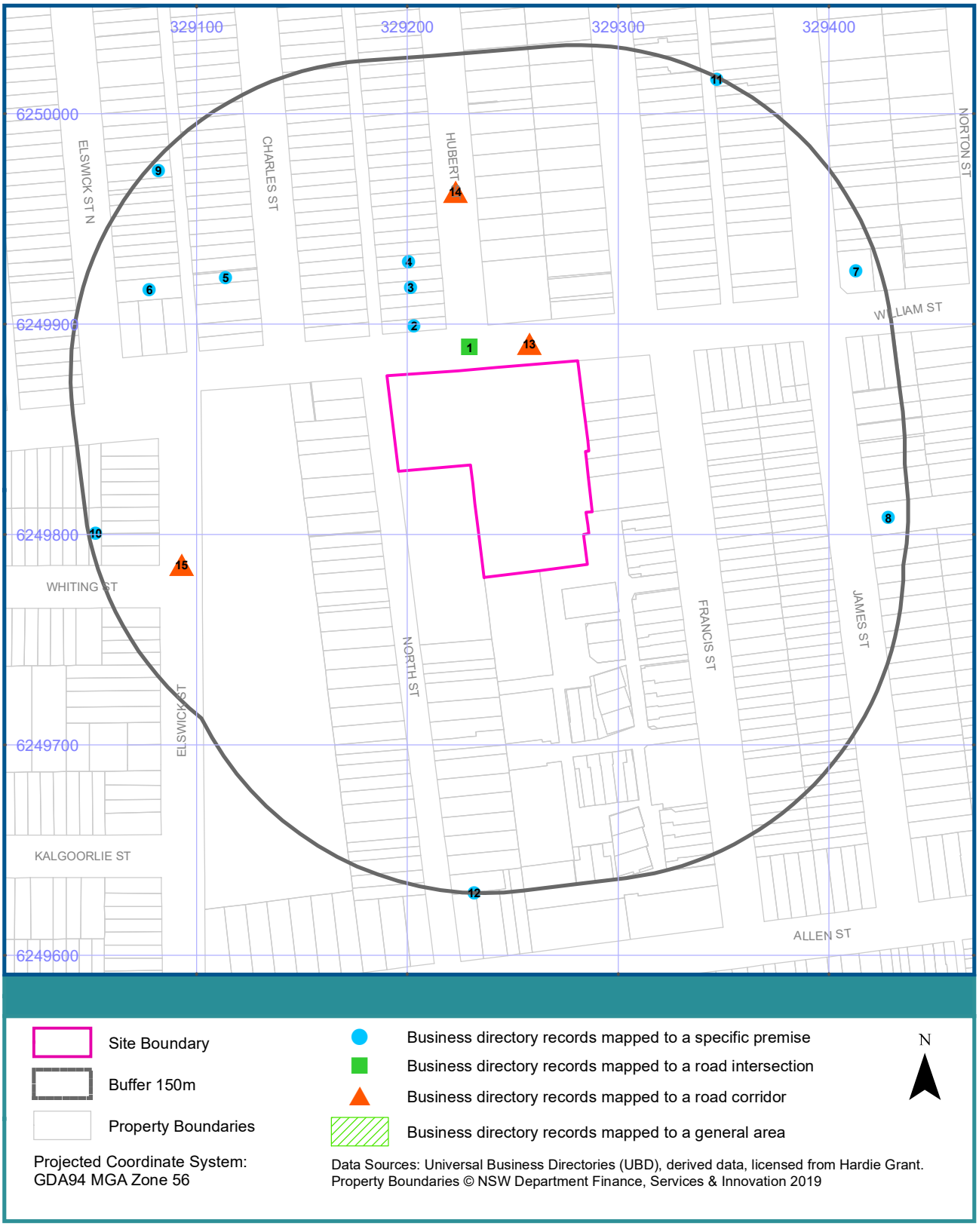
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1950 Business Directory Records



Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

1950 Business Directory Records
Premise or Road Intersection Matches

Records from the 1950 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	FURNITURE MANUFACTURERS & WHOLESALERS-GENERAL	Dickinson, C. and Sons Pty. Ltd., William and Hubert Sts., Leichhardt	52684	Road Intersection	11m	North
2	GROCERS-RETAIL	Yates, W., 2 Hubert St., Leichhardt	56230	Premise Match	20m	North West
	DELICATESSENS & SMALLGOODS DEALERS	Yatts, W., 2 Hubert St., Leichhardt	31434	Premise Match	20m	North West
3	MILK BARS & CONFECTIONERS	Fantham, Miss Z., 8 Hubert St., Leichhardt	76659	Premise Match	38m	North West
	MILK VENDORS	Fantham, Miss Z., 8 Hubert St., Leichhardt	77745	Premise Match	38m	North West
	MIXED BUSINESSES & GENERAL STORES	Fantham, Miss Z., 8 Hubert St., Leichhardt	79875	Premise Match	38m	North West
4	MIXED BUSINESSES & GENERAL STORES	Bryan, R., 12 Hubert St., Leichhardt	79481	Premise Match	50m	North West
5	GROCERS-RETAIL	Phillips, J., 10 Charles St., Leichhardt	58732	Premise Match	76m	North West
	MIXED BUSINESSES & GENERAL STORES	Phillips, Mrs. J., 10 Charles St., Leichhardt	80755	Premise Match	76m	North West
6	MIXED BUSINESSES & GENERAL STORES	Osborne, Mrs. A., 217 Elswick St., Leichhardt	80690	Premise Match	104m	North West
7	BUTCHERS' SUPPLIES	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt	13030	Premise Match	130m	North East
	BUTCHERS-WHOLESALE	Tripe Distributors Pty. Ltd., 61 James St., Leichhardt	14665	Premise Match	130m	North East
8	BROOM & BRUSH-SWEEPING-WHOLESALERS	McDonald, F., 258 Norton St., Leichhardt	11514	Premise Match	131m	East
	TOY MANUFACTURERS	Roebuck, E. and Sons, 256 Norton St., Leichhardt	109872	Premise Match	131m	East
	TIMBER MERCHANTS	Roebuck, F. and Sons, 256 Norton St., Leichhardt	78280	Premise Match	131m	East
	WOODWARE MANUFACTURERS	Roebuck, F., 256 Norton St., Leichhardt	114034	Premise Match	131m	East
9	INSURANCE AGENTS	Rowston, A. F., 229 Elswick St., Leichhardt	64981	Premise Match	139m	North West
10	LAWN MOWERS-MOTOR POWERED-IMPORTERS &/OR DISTRIBUTORS &/OR MFRS,	Grahame, Alex, 1 .Whiting St., Leichhardt	67877	Premise Match	142m	West
	LAWN MOWER SALES & SERVICE	Grahame, Alex, 1 Whiting St., Leichhardt	67808	Premise Match	142m	West
	LAWN MOWERS-MANUAL-MANUFACTURERS	Grahame, Alex, 1 Whiting St., Leichhardt	67862	Premise Match	142m	West
	LAWN MOWER PARTS DEALERS	Graharne, Alex, 1 Whiting St., Leichhardt	67790	Premise Match	142m	West
11	MIXED BUSINESSES & GENERAL STORES	Bennett, Mrs. M., 100 James St., Leichhardt	79359	Premise Match	148m	North East

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
12	BUTCHERS-RETAIL	Harvey, G., 79 Allen St., Leichhardt	13643	Premise Match	150m	South

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1950 Business Directory Records
Road or Area Matches

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Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
13	CABINETMAKERS	Dickinson, C. and Sons Pty. Ltd., William St., Leichhardt	14882	Road Match	0m
14	MIXED BUSINESSES & GENERAL STORES	Phantom, J., Hubert St., Leichhardt	80750	Road Match	20m
15	FOOTWEAR MANUFACTURERS-BOOTS & SHOES	Robins, J. & Sons Pty. Ltd., 234 Elswick St., Leichhardt	46903	Road Match	91m
	FOOTWEAR MANUFACTURERS-BOOTS & SHOES	Robins, J. and Sons Pty. Ltd., 234 Elswick St., Leichhardt	46904	Road Match	91m
	CAKE SHOPS & PASTRYCOOKS	Yaager, P and Son, 7 Elswick St., Leichhardt	17397	Road Match	91m
	BAKERS-BREAD	Yaager, P. and Son, 7 Elswick St., Leichhardt	5545	Road Match	91m

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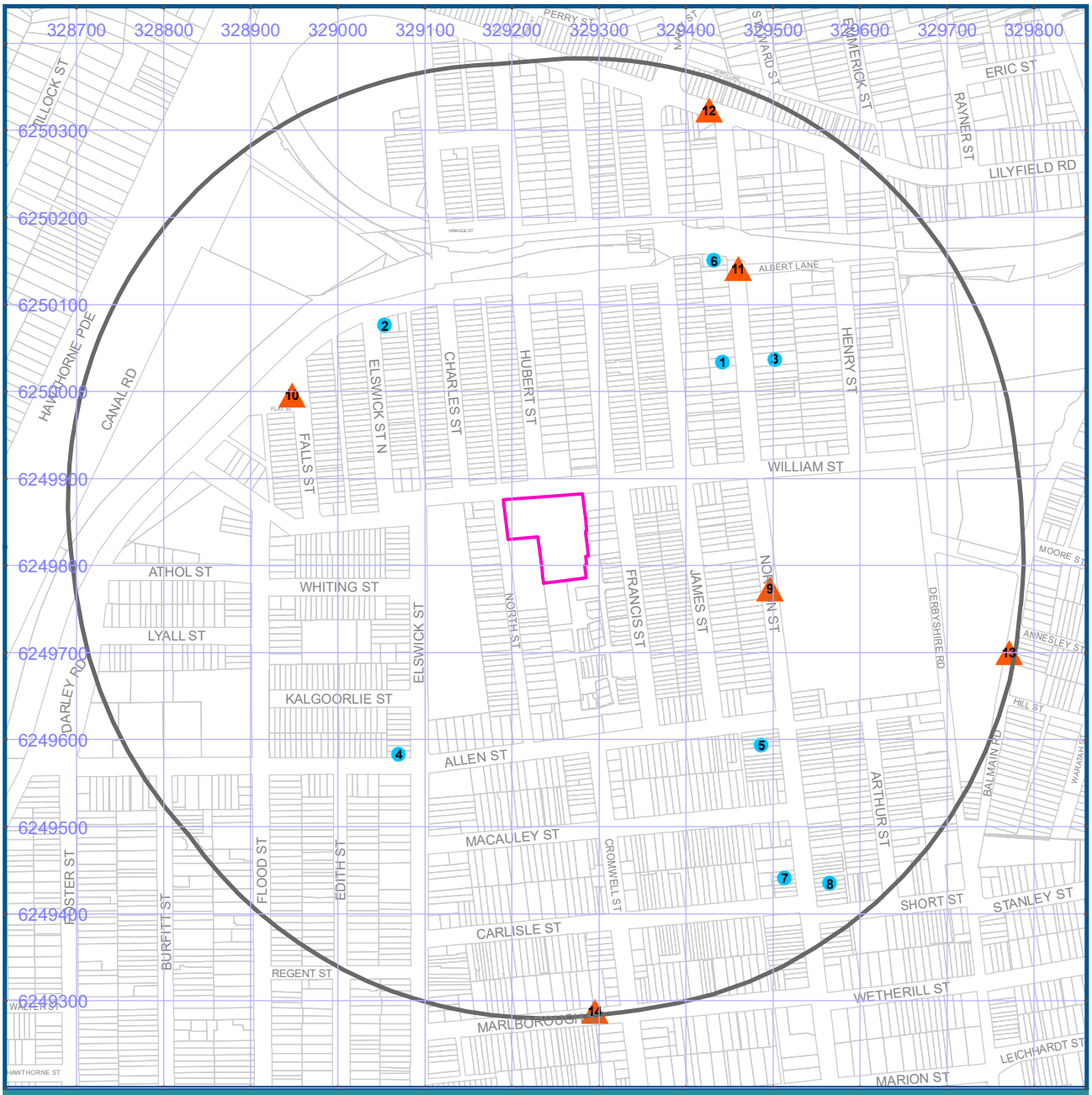
Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

Dry Cleaners, Motor Garages & Service Stations



Site Boundary

Buffer 500m

Property Boundaries

Projected Coordinate System:
GDA94 MGA Zone 56

Business directory records mapped to a specific premise

Business directory records mapped to a road intersection

Business directory records mapped to a road corridor

Business directory records mapped to a general area

N

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Historical Business Directories

40-76 William Street, Leichhardt, NSW 2040

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches (1948-1993)

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Meek J. & Son., 322 Norton St., Leichhardt. 2040.	45965	1979	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Meek, J. & Son, 322 Norton St., Leichhardt. 2040	50474	1978	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Meek J. & Son., 322 Norton St., Leichhardt 2040	30470	1976	Premise Match	206m	North East
	MOTOR SERVICE STATIONS - PETROL, OIL	Meek. J. & Son., 322 Norton St., Leichhardt. 2040	61871	1975	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	16841	1972	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Renown Service Station (Caltex)., 322 Norton St Leichhardt	12484	1972	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	2304	1971	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Renown Service Station (Caltex)., 322 Norton St., Leichhardt	62167	1971	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Meek, J. & Son, 322 Norton St. Leichardt	341324	1970	Premise Match	206m	North East
	MOTOR GARAGES & ENGINEERS(M6S6)	Renown Service Station (Caltex), 322 Norton St. Leichardt	338504	1970	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	50397	1969	Premise Match	206m	North East
	MOTOR GARAGES & ENGINEERS.	Renown Service Station (Caltex)., 322 Norton St Leichhardt	42516	1969	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	32432	1968	Premise Match	206m	North East
	MOTOR GARAGES & ENGINEERS	Renown Service Station (Caltex)., 322 Norton St Leichhardt	26005	1968	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	15892	1967	Premise Match	206m	North East
	MOTOR GARAGES & ENGINEERS.	Renown Service Station (Caltex)., 322 Norton St Leichhardt	10500	1967	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	1468	1966	Premise Match	206m	North East
	MOTOR GARAGES & ENGINEERS.	Renown Service Station (Caltex)., 322 Norton St Leichhardt	60244	1966	Premise Match	206m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Motor Service Stations - Petrol, Oil, Etc.	Meek, J. & Son, 322 Norton St. Leichhardt	125848	1965	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	52126	1964	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meek J. & Son., 322 Norton St Leichhardt	38366	1962	Premise Match	206m	North East
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Meek, J. & Son, 322 Norton St. Leichhardt	350857	1961	Premise Match	206m	North East
	MOTOR GARAGE/ENGINEERS.	Meek J. & Son., 322 Norton St Leichhardt	4574	1958	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Meek J. & Son., 322 Norton St Leichhardt	61126	1956	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Meek J. & Son., 322 Norton St Leichhardt	49685	1954	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Meek J. & Son., 322 Norton St Leichhardt	40359	1953	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Meek J., 322 Norton St Leichhardt	31949	1952	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, Etc.	Meek, J. and Son, 322 Norton St., Leichhardt	86203	1950	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS	Meek, J., 322 Norton St., Leichhardt	84080	1950	Premise Match	206m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Meek J., 322 Norton St Leichhardt	22618	1948-49	Premise Match	206m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Meek, J and Son., 322 Norton St., Leichhardt	26635	1948-49	Premise Match	206m	North East
2	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Leichhardt Service Station, Cnr. Darley Rd. & Elswick St. Leichhardt	341276	1970	Premise Match	232m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Leichhardt Service Station., Cnr Darley Rd & Elswick St Leichhardt	50395	1969	Premise Match	232m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Leichhardt Service Station., Cnr Darley Rd & Elswick St., Leichhardt	32430	1968	Premise Match	232m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Leichhardt Service Station., Cnr Darley Rd & Elswick St Leichhardt	15890	1967	Premise Match	232m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Leichhardt Service Station., Cnr Darley Rd & Elswick St Leichhardt	1466	1966	Premise Match	232m	North West
	Motor Service Stations - Petrol, Oil, Etc.	Leichhardt Service Station, Cnr. Darley Rd. & Elswick St. Leichhardt	125847	1965	Premise Match	232m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Leichhardt Service Station., Cnr Darley Rd & Elswick St Leichhardt	52124	1964	Premise Match	232m	North West
	MOTOR GARAGES & ENGINEERS.	Leichhardt Service Station., Cnr Darley Rd & Elswick St Leichhardt	32818	1962	Premise Match	232m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Leichhardt Service Station., Cnr Darley Rd & Elswick St Leichhardt	38365	1962	Premise Match	232m	North West
	MOTOR GARAGES & ENGINEERS	Leichhardt Service Station, Cnr. Darley Rd. & Elswick St. LEICHHARDT	347565	1961	Premise Match	232m	North West
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Leichhardt Service Station, Cnr. Darley Rd. & Elswick St. LEICHHARDT	350785	1961	Premise Match	232m	North West
3	MOTOR GARAGES & SERVICE STATIONS.	Meek J. & Son., 249 Norton St., Leichhardt. 2040	45170	1985	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Meek J. & Son., 249 Norton St., Leichhardt. 2040	33747	1984	Premise Match	244m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Meek J & Son., 249 Norton St., Leichhardt 2040	15096	1983	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Meek, J. & Son, 249 Norton St., Leichhardt. 2040.	57168	1982	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Martins Service Station., 249 Norton St., Leichhardt. 2040.	45937	1979	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Martins Service Station, 249 Norton St., Leichhardt. 2040	50446	1978	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Martins Service Station., 249 Norton St., Leichhardt 2040	30438	1976	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Martin's Service Station., 249 Norton St., Leichhardt. 2040	59207	1975	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Martins Service Station (Bp)., 249 Norton St Leichhardt	16840	1972	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Martins Service Station (Bp)., 249 Norton St Leichhardt	2303	1971	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Martins Service Station (BP), 249 Norton St. LEICHHARDT	341305	1970	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Martins Service Station (Bp)., 249 Norton St Leichhardt	50396	1969	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Martins Service Station (Bp)., 249 Norton St Leichhardt	32431	1968	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Martins Service Station (Bp)., 249 Norton St Leichhardt	15891	1967	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Martins Service Station (Bp)., 249 Norton St Leichhardt	1467	1966	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Martin's Service Station (B.P.)., 249 Norton St Leichhardt	52125	1964	Premise Match	244m	North East
	MOTOR GARAGES & ENGINEERS.	Barber Bros., 249 Norton St Leichhardt	32807	1962	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Floyd A. C., 249 Norton St Leichhardt	38360	1962	Premise Match	244m	North East
	MOTOR GARAGES & ENGINEERS	Barber Bros., 249 Norton St. LEICHHARDT	346598	1961	Premise Match	244m	North East
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Floyd, A. C., 249 Norton St. LEICHHARDT	350586	1961	Premise Match	244m	North East
	MOTOR GARAGES & ENGINEERS.	Barber Bros., 249 Norton St Leichhardt	19411	1959	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Floyd A. C., 249 Norton St Leichhardt	24301	1959	Premise Match	244m	North East
	MOTOR GARAGE/ENGINEERS.	Barber Bros., 249 Norton St Leichhardt	597	1958	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Floyd A. C., 249 Norton St Leichhardt	9524	1958	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Barber Bros., 249 Norton St., Leichhardt	57219	1956	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Floyd A. C., 249 Norton St Leichhardt	61900	1956	Premise Match	244m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	MOTOR GARAGES &/OR ENGINEERS.	Barber Bros., 249 Norton St Le'Ichhardt	44781	1954	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Floyd A. C., 249 Norton St Leichhardt	54467	1954	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Barber Bros., 249 Norton St Leichhardt	36571	1953	Premise Match	244m	North East
	MOTOR SERVICE STATIONS–PETROL, ETC.	Burgess, D. J., 249 Norton St., Leichhardt	44027	1953	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Floyd A. & E., 249 Norton St Leichhardt	39997	1953	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Barber Bros., 249 Norton St Leichhardt	27488	1952	Premise Match	244m	North East
	MOTOR SERVICE STATIONS–PETROL, ETC.	Burgess D. J., 249 Norton St Leichhardt	35796	1952	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS	Barber Bros., 249 Norton St., Leichhardt	83420	1950	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, Etc.	Burgess, D. J., 249 Norton St., Leichhardt	85834	1950	Premise Match	244m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Barber Bros., 249 Norton St Leichhardt	17753	1948-49	Premise Match	244m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Burgess D. J., 249 Norton St Leichhardt	23158	1948-49	Premise Match	244m	North East
4	DRY CLEANERS, PRESSERS &/OR DYERS	D'Amico Dry Cleaners, 216 Elswick St., Leichhardt. 2040	20752	1978	Premise Match	246m	South West
5	DRY CLEANERS, PRESSERS & DYERS	Norton Laundry Service, 198 Norton St., Leichhardt	35569	1950	Premise Match	263m	South East
6	DRY CLEANERS, PRESSERS/DYERS.	Westley Dry Cleaners., 352 Norton St Leichhardt	24966	1962	Premise Match	295m	North East
	DRY CLEANERS, PRESSERS / DYERS	Westley Dry Cleaners, 352 Norton St., Leichhardt	299320	1961	Premise Match	295m	North East
	DRY CLEANERS, PRESSERS/DYERS	Westley Dry Cleaners., 352 Norton St Leichhardt	13308	1959	Premise Match	295m	North East
	DRY CLEANERS, PRESSERS & DYERS	Westley Dry Cleaners., 352 Norton St Leichhardt	430	1958	Premise Match	295m	North East
7	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence., 166 Norton St., Leichhardt 2040	23638	1976	Premise Match	405m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence, 166 Norton St., Leichhardt. 2040	24163	1975	Premise Match	405m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence., 166 Norton St., Leichhardt 2040	2979	1972	Premise Match	405m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS	Lawrence., 166 Norton St., Leichhardt 2040	51128	1971	Premise Match	405m	South East
8	DRY CLEANERS, PRESSERS &/OR DYERS.	No Delay Dry Cleaners., 145 Norton St., Leichhardt 2040	23719	1976	Premise Match	438m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	No Delay Dry Cleaners, 145 Norton St., Leichhardt. 2040	24243	1975	Premise Match	438m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS	Immaculate Dry Cleaners- 145 Norton St., Leichhardt 2040	51101	1971	Premise Match	438m	South East
	DRY CLEANERS, PRESSERS & DYERS.	Strate Dry Cleaners., 145 Norton St., Leichhardt	44538	1954	Premise Match	438m	South East
	DRY CLEANERS, PRESSERS & DYERS.	Strate Dry Cleaners., 145 Norton St Leichhardt	36366	1953	Premise Match	438m	South East
	DRY CLEANERS, PRESSERS & DYERS.	Strate Dry Cleaners., 145 Norton St Leichhardt	27292	1952	Premise Match	438m	South East
	DRY CLEANERS, PRESSERS & DYERS	Strate Dry Cleaners, 145 Norton St., Leichhardt	35713	1950	Premise Match	438m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
8	DRY CLEANERS, PRESSERS & DYERS.	Strate Dry Cleaners., 145 Norton St Leichhardt	17488	1948-49	Premise Match	438m	South East

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Dry Cleaners, Motor Garages & Service Stations Road or Area Matches (1948-1993)

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
9	MOTOR GARAGES & SERVICE STATIONS.	Esso Leichhardt Service Station, Darley Rd., Leichhardt. 2040	11559	1990	Road Match	189m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Caltex Service Station., Norton St Leichhardt	50388	1969	Road Match	189m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Friendly Service Station., Norton St Leichhardt	50392	1969	Road Match	189m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Friendly Service Station., Norton St Leichhardt	32427	1968	Road Match	189m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Friendly Service Station., Norton St Leichhardt	15887	1967	Road Match	189m
	DRY CLEANERS, PRESSERS & DYERS	Roylyn Dry Cleaners, Norton St., Leichhardt	35674	1950	Road Match	189m
10	MOTOR GARAGES & SERVICE STATIONS.	Esso Leichhardt Service Station, Darley Rd., Leichhardt. 2040	18935	1993	Road Match	232m
	Motor Garages & Service Stations	Esso Leichhardt Service Station, Darley Rd., Leichhardt 2040	97359	1991	Road Match	232m
	MOTOR GARAGE & SERVICE STATIONS.	BP Leichhardt Service Station, Darley Rd., Leichhardt. 2040	64592	1989	Road Match	232m
	MOTOR GARAGES & SERVICE STATIONS.	BP Leichhardt Service Station, Darley Rd., Leichhardt. 2040	53704	1988	Road Match	232m
	MOTOR GARAGES & SERVICE STATIONS.	BP Leichhardt Service Station, Darley Rd., Leichhardt. 2040	64166	1986	Road Match	232m
	MOTOR GARAGES & SERVICE STATIONS.	BP Leichhardt Service Station, Darley Rd., Leichhardt. 2040	39174	1985	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Leichhardt Service Station, Darley Rd., Leichhardt. 2040	27778	1984	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Leichhardt Service Station., Darley Rd., Leichhardt 2040	9134	1983	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	BP Leichhardt Service Station, Darley Rd., Leichhardt. 2040.	56238	1982	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Leichhardt Service Station., Darley Rd., Leichhardt. 2040	63917	1981	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Leichhardt Service Station., Darley Rd., Leichhardt. 2040	51417	1980	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Leichhardt Service Station., Darley Rd., Leichhardt. 2040.	40835	1979	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Leichhardt Service Station, Darley Rd., Leichhardt. 2040	49351	1978	Road Match	232m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Leichhardt Service Station., Darley Rd., Leichhardt 2040	25065	1976	Road Match	232m
	MOTOR SERVICE STATIONS - PETROL, OIL	BP Leichhardt Service Station., Darley Rd., Leichhardt. 2040	61414	1975	Road Match	232m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
10	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	BP Leichhardt Service Station., Darley Rd Leichhardt	16833	1972	Road Match	232m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	BP Leichhardt Service Station., Darley Rd Leichhardt	2296	1971	Road Match	232m
11	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Meek J. & Son., 351 Norton St., Leichhardt 2040	3736	1981	Road Match	307m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Meek, J. & Son., 351 Norton St., Leichhardt. 2040	58470	1980	Road Match	307m
12	MOTOR GARAGES & SERVICE STATIONS.	Hawthorne Bridge Auto Port, Lilyfield Rd., Leichhardt. 2040	44958	1985	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hawthorne Bridge Auto Port, Lilyfield Rd., Leichhardt. 2040	28457	1984	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hawthorne Bridge Auto Port., Lilyfield Rd., Leichhardt. 2040	14885	1983	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Hawthorne Bridge Auto Port, Lilyfield Rd., Leichhardt. 2040.	56951	1982	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hawthorne Bridge Auto Port., Lilyfield Rd., Leichhardt 2040	3505	1981	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hawthorne Bridge Auto Port., Lilyfield Rd., Leichhardt. 2040	58238	1980	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hawthorne Bridge Auto Port., Lilyfield Rd., Leichhardt. 2040.	41699	1979	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kircher H. A., Lilyfield Rd., Lilyfield. 2040.	45865	1979	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hawthorne Bridge Auto Port, Lilyfield Rd., Leichhardt. 2040	50236	1978	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kircher, H. A., Lilyfield Rd., Lilyfield. 2040	50344	1978	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Hawthorne Auto Ports., Lilyfield Rd., Leichhardt 2040	30237	1976	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Kircher H. A., Lilyfield Rd., Lilyfield 2040	30340	1976	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS.	Hawthorne Auto Ports., Lilyfield Rd., Leichhardt. 2040	59033	1975	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS.	Kircher, H. A., Lilyfield Rd., Lilyfield. 2040	59121	1975	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS.	Hawthorne Auto Port., Lilyfield Rd., Leichhardt	12479	1972	Road Match	455m
	MOTOR GARAGES &/OR ENGINEERS.	Hawthorne Auto Port., Lilyfield Rd., Leichhardt	62162	1971	Road Match	455m
	MOTOR GARAGES & ENGINEERS(M6S6)	Hawthorne Auto Port., Lilyfield Rd., Leichhardt	337996	1970	Road Match	455m
	MOTOR GARAGES & ENGINEERS.	Gane R. L., Lilyfield Rd Lilyfield	42542	1969	Road Match	455m
	MOTOR GARAGES & ENGINEERS.	Hawthorne Auto Port., Lilyfield Rd Leichhardt	42509	1969	Road Match	455m
	MOTOR GARAGES & ENGINEERS	Gane R. L., Lilyfield Rd., Lilyfield	26030	1968	Road Match	455m
	MOTOR GARAGES & ENGINEERS	Hawthorne Auto Port., Lilyfield Rd Leichhardt	25998	1968	Road Match	455m
	MOTOR GARAGES & ENGINEERS.	Gane R. L., Lilyfield Rd., Lilyfield	10527	1967	Road Match	455m
	MOTOR GARAGES & ENGINEERS.	Hawthorne Auto Port., Lilyfield Rd Leichhardt	10494	1967	Road Match	455m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
12	MOTOR GARAGES & ENGINEERS.	Gane R. L., Lilyfield Rd., Lilyfield	60273	1966	Road Match	455m
13	MOTOR GARAGES & SERVICE STATIONS.	Triangle Service Centre, Balmain Rd., Leichhardt. 2040	18347	1990	Road Match	488m
	MOTOR GARAGE & SERVICE STATIONS.	Triangle Service Centre, Balmain Rd., Leichhardt. 2040	5678	1989	Road Match	488m
	MOTOR GARAGES & SERVICE STATIONS.	Triangle Service Centre, Balmain Rd., Leichhardt. 2040	60091	1988	Road Match	488m
	MOTOR GARAGES & SERVICE STATIONS.	Triangle Service Centre, Balmain Rd., Leichhardt. 2040	45768	1985	Road Match	488m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Triangle Service Centre, Balmain Rd., Leichhardt. 2040	34329	1984	Road Match	488m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Triangle Service Centre., Balmain Rd., Leichhardt 2040	21769	1983	Road Match	488m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Triangle Service Centre., Balmain Rd., Leichhardt 2040	8350	1981	Road Match	488m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Triangle Service Centre., Balmain Rd., Leichhardt. 2040	59037	1980	Road Match	488m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Triangle Service Centre., Balmain Rd., Leichhardt. 2040.	46536	1979	Road Match	488m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Triangle Service Centre., Balmain Rd., Leichhardt 2040	35111	1976	Road Match	488m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Triangle Service Centre., Balmain Rd Leichhardt	32433	1968	Road Match	488m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Triangle Service Centre., Balmain Rd Leichhardt	15893	1967	Road Match	488m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Triangle Service Centre., Balmain Rd Leichhardt	1469	1966	Road Match	488m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Triangle Service Centre., Balmain Rd Leichhardt	52127	1964	Road Match	488m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Triangle Service Centre., Balmain Rd Leichhardt	38368	1962	Road Match	488m
14	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Friendly Service Station., Marlborough St., Leichhardt. 2040	3338	1981	Road Match	491m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Friendly Service Station., Marlborough St., Leichhardt. 2040	58075	1980	Road Match	491m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Friendly Service Station., Marlborough St., Leichhardt. 2040.	41541	1979	Road Match	491m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Friendly Service Station, Marlborough St., Leichhardt. 2040	50078	1978	Road Match	491m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Friendly Service Station., Marlborough St., Leichhardt 2040	30059	1976	Road Match	491m
	MOTOR GARAGES &/OR ENGINEERS.	Friendly Service Station., Marlborough St., Leichhardt. 2040	58903	1975	Road Match	491m
	MOTOR GARAGES &/OR ENGINEERS.	Friendly Service Station., Marlborough St Leichhardt	12477	1972	Road Match	491m
	MOTOR GARAGES &/OR ENGINEERS.	Friendly Service Station., Marlborough St., Leichhardt	62160	1971	Road Match	491m

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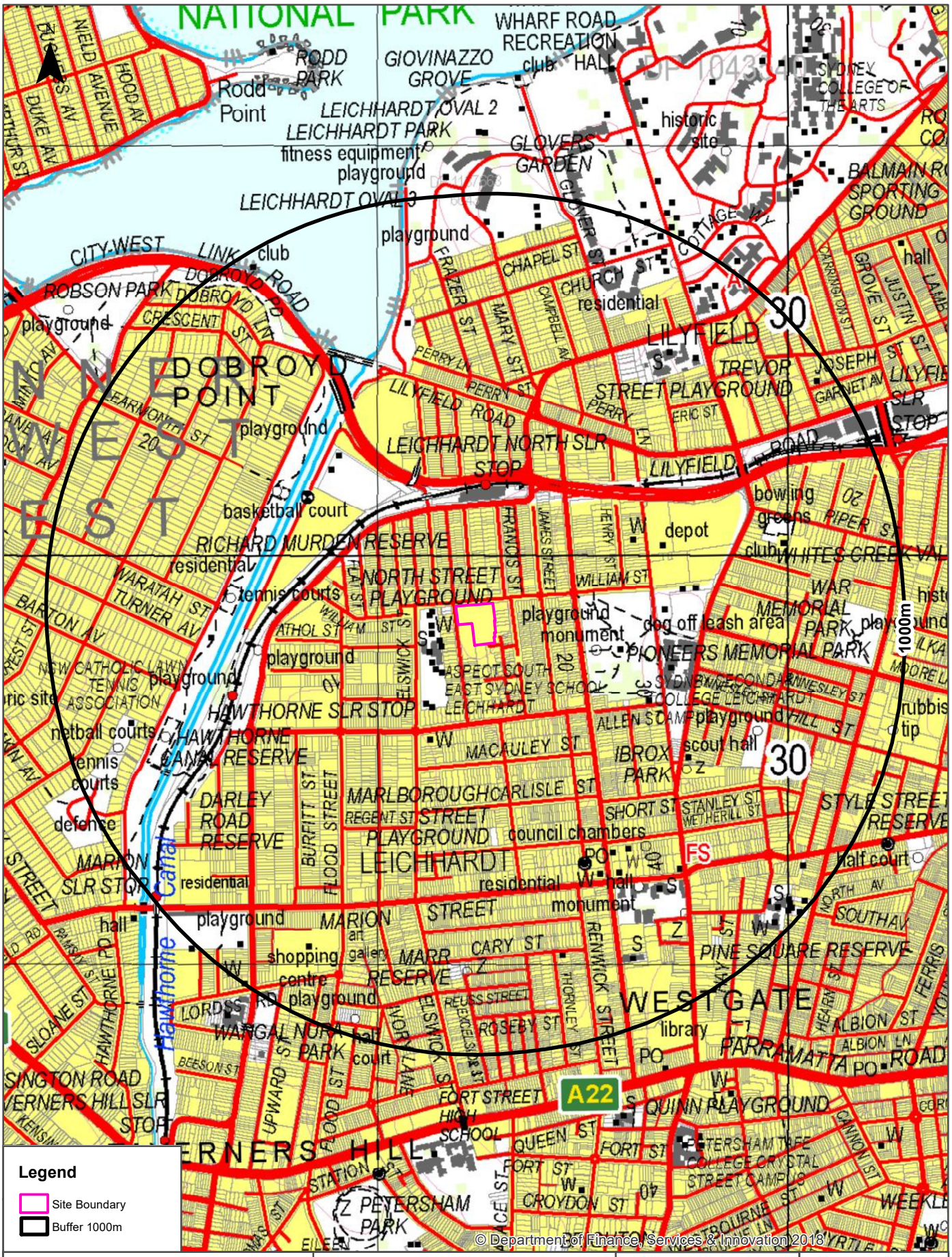
Topographic Map 2015

40-76 William Street, Leichhardt, NSW 2040



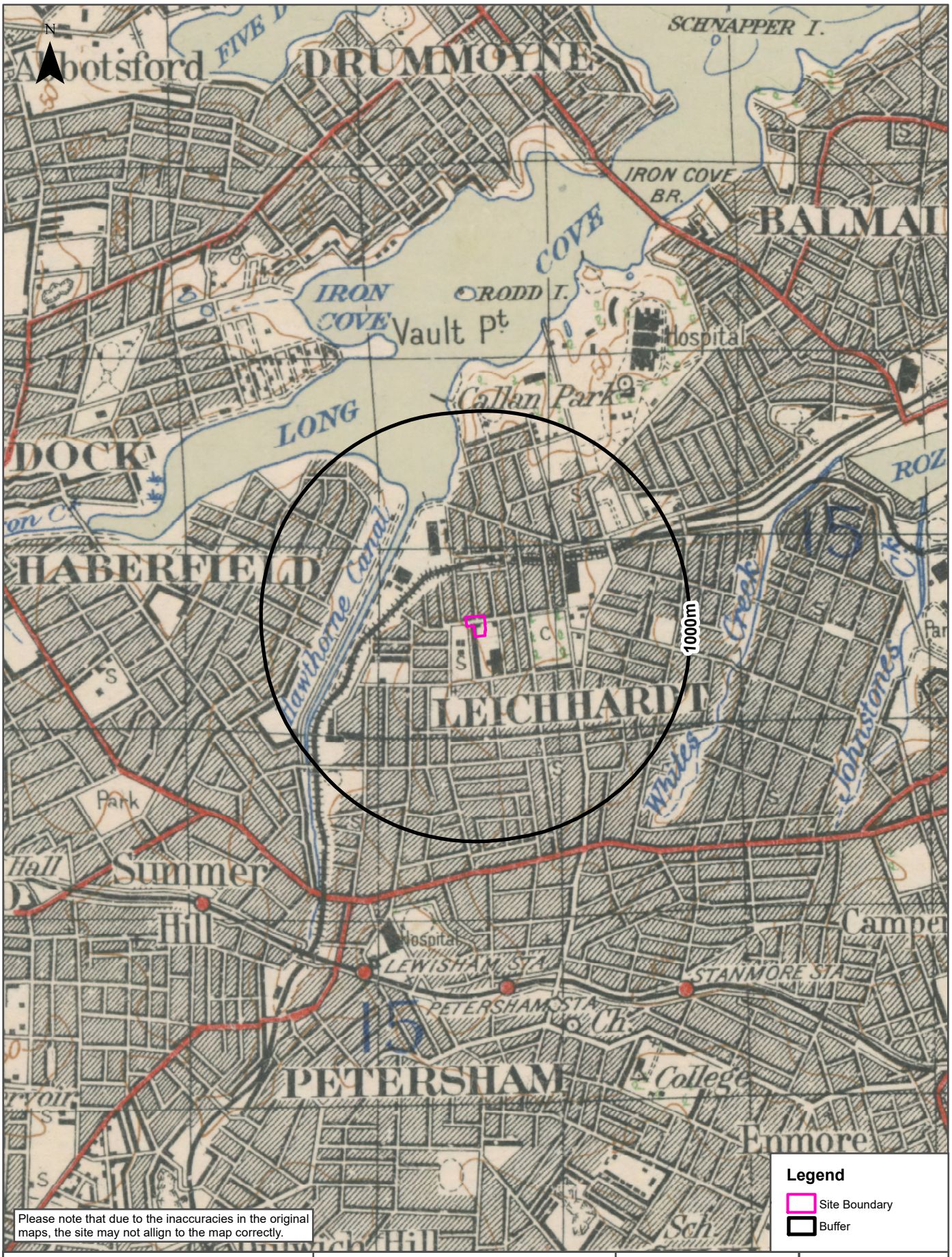
Scale: 0 100 200 400 600 Meters	Data Sources: Topographic Map Data © NSW Land and Property Information	Coordinate System: GDA 1994 MGA Zone 56	Date: 28 November 2019

Historical Map 1975

40-76 William Street, Leichhardt, NSW 2040

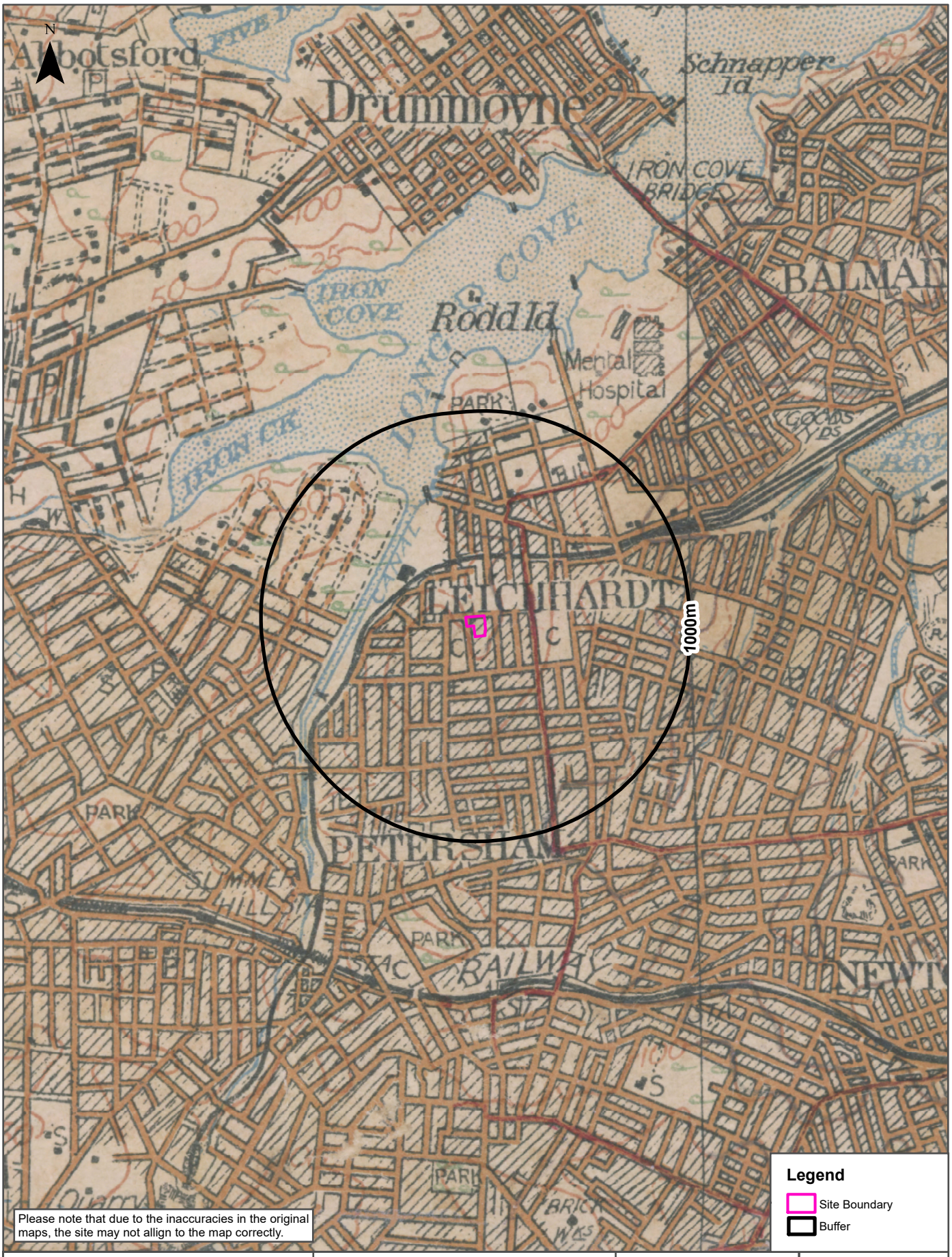
Historical Map c.1936

40-76 William Street, Leichhardt, NSW 2040



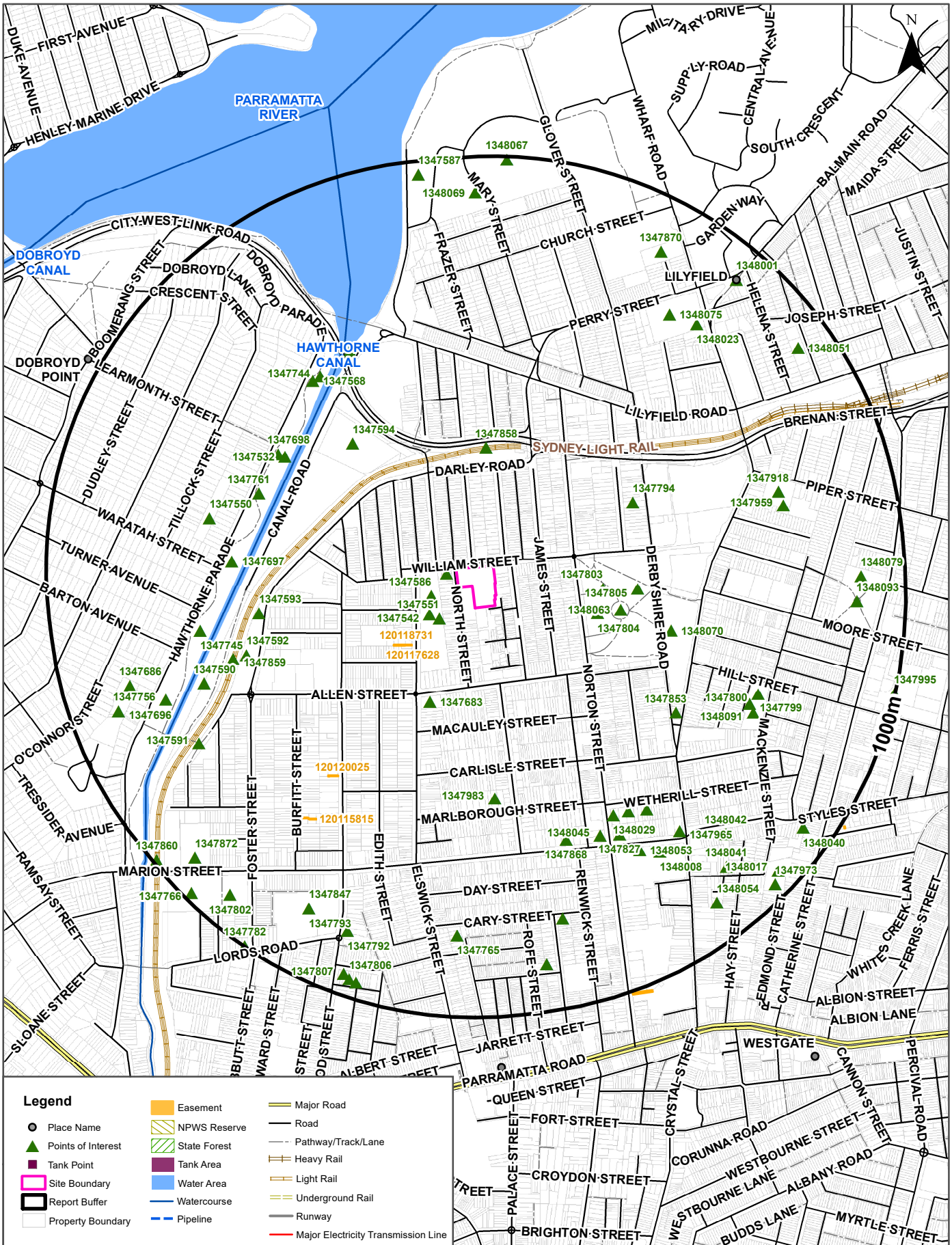
Historical Map c.1917

40-76 William Street, Leichhardt, NSW 2040



Topographic Features

40-76 William Street, Leichhardt, NSW 2040



Legend

- Place Name
- Points of Interest
- Tank Point
- Site Boundary
- Report Buffer
- Property Boundary
- Easement
- NPWS Reserve
- State Forest
- Tank Area
- Water Area
- Watercourse
- Pipeline
- Major Road
- Road
- Pathway/Track/Lane
- Heavy Rail
- Light Rail
- Underground Rail
- Runway
- Major Electricity Transmission Line

Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2019

Coordinate System: GDA 1994 MGA Zone 56

Date: 28 November 2019

Topographic Features

40-76 William Street, Leichhardt, NSW 2040

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
1347695	Park	NORTH STREET PLAYGROUND	24m	West
1347586	Place Of Worship	ST COLUMBA'S CATHOLIC CHURCH	69m	West
1347551	Special School	ASPECT SOUTH EAST SYDNEY SCHOOL LEICHHARDT	89m	South West
1347542	Primary School	ST COLUMBA'S CATHOLIC PRIMARY SCHOOL	96m	South West
1347804	Monument	LEICHHARDT MEMORIAL	250m	East
1347683	Place Of Worship	CONGREGATIONAL CHURCH	254m	South West
1347803	Park	PLAYGROUND	261m	East
1347858	Railway Station	LEICHHARDT NORTH SLR STOP	290m	North
1348063	Park	PIONEERS MEMORIAL PARK	306m	East
1347805	Park	DOG OFF LEASH AREA	346m	East
1347794	Place Of Worship	GREEK ORTHODOX	374m	North East
1347594	Park	BLACKMORE PARK	396m	North West
1348070	High School	SYDNEY SECONDARY COLLEGE LEICHHARDT CAMPUS	433m	East
1347983	Park	MARLBOROUGH STREET PLAYGROUND	468m	South
1347593	Picnic Area	PLAYGROUND	490m	West
1347532	Sports Court	BASKETBALL COURT	499m	North West
1348000	Suburb	LEICHHARDT	502m	South
1347853	Park	IBROX PARK	512m	South East
1347761	Park	RICHARD MURDEN RESERVE	514m	West
1347698	Sports Court	NETBALL COURT	516m	North West
1347592	Park	SHIELDS PLAYGROUND	542m	West
1347697	Sports Court	TENNIS COURTS	547m	West
1347744	Park	PLAYGROUND	575m	North West
1347859	Railway Station	HAWTHORNE SLR STOP	576m	West
1347568	Park	284 HAWTHORNE PARADE	577m	North West
1348029	Post Office	LEICHHARDT POST OFFICE	587m	South East
1347786	Boat Ramp	Boat Ramp	591m	North West
1347868	Nursing Home	UNITING ANNESLEY HOUSE LEICHHARDT	596m	South
1347781	Place Of Worship	UNITING CHURCH	598m	South East
1347550	Community Home	ST JOAN OF ARC VILLA	614m	West
1348045	Place Of Worship	ALL SOULS ANGLICAN CHURCH LEICHHARDT	617m	South East

Map Id	Feature Type	Label	Distance	Direction
1348061	Local Government Chambers	LEICHHARDT MUNICIPAL COUNCIL	620m	South East
1347827	Community Facility	LEICHHARDT TOWN HALL	636m	South East
1347745	Park	PLAYGROUND	638m	West
1347590	Park	HAWTHORNE CANAL RESERVE	662m	West
1347799	Sports Court	HALF COURT	665m	South East
1347800	Picnic Area	PLAYGROUND	676m	East
1348091	Park	36TH BATTALION PARK	682m	South East
1348053	Monument	KILPATRICK MEMORIAL	693m	South East
1347965	Fire Station	LEICHHARDT FIRE STATION	711m	South East
1347918	Sports Field	BOWLING GREENS	718m	East
1347959	Club	LEICHHARDT BOWLING AND RECREATION CLUB	722m	East
1348008	Primary School	LEICHHARDT PUBLIC SCHOOL	722m	South East
1347591	Park	DARLEY ROAD RESERVE	738m	South West
1348075	Primary School	ORANGE GROVE PUBLIC SCHOOL	749m	North East
1347756	Sports Court	NETBALL COURTS	764m	West
1348023	Preschool	ORANGE GROVE PUBLIC SCHOOL PRESCHOOL	770m	North East
1347817	Community Facility	WOMENS COMMUNITY HEALTH CENTRE	781m	South
1348042	Child Care Centre	LEICHHARDT LONG DAY CENTRE	792m	South East
1347765	Park	MARR RESERVE	800m	South
1347686	Sports Centre	NSW CATHOLIC LAWN TENNIS ASSOCIATION	836m	West
1347793	Shopping Centre	MARKETPLACE LEICHHARDT	838m	South West
1347847	Community Facility	LEICHHARDT MARKETPLACE COMMUNITY ROOM	838m	South West
1347792	Art Gallery	BOOMALLI ABORIGINAL ARTISTS CO OPERATIVE	847m	South
1348041	Child Care Centre	LEICHHARDT PRE-SCHOOL	851m	South East
1347870	Nursing Home	UNITING ALDERSGATE LILYFIELD	869m	North East
1348093	Park	WAR MEMORIAL PARK	880m	East
1347696	Sports Court	TENNIS COURTS	882m	West
1348039	Child Care Centre	LITTLE ARK PRE-SCHOOL	885m	South
1348079	Park	PLAYGROUND	891m	East
1348054	Park	PINE SQUARE RESERVE	905m	South East
1348069	Park	PLAYGROUND	913m	North
1348051	Park	TREVOR STREET PLAYGROUND	914m	North East
1347872	Nursing Home	UNITING THE MARION LEICHHARDT	915m	South West
1348001	Suburb	LILYFIELD	916m	North East
1347802	Park	PLAYGROUND	920m	South West
1348040	Child Care Centre	STYLES STREET CHILDRENS LONG DAY CENTRE	926m	South East
1348017	Primary School	ST FIACRE'S CATHOLIC PRIMARY SCHOOL	945m	South East

Map Id	Feature Type	Label	Distance	Direction
1347807	Park	PLAYGROUND	949m	South
1347806	Park	WANGAL NURA PARK	957m	South
1347808	Sports Court	HALF COURT	960m	South
1347973	Place Of Worship	CATHOLIC CHURCH	964m	South East
1347587	Sports Field	LEICHHARDT OVAL 3	967m	North
1347766	Sports Field	LAMBERT PARK	981m	South West
1347860	Railway Station	MARION SLR STOP	990m	South West
1348067	Sports Field	LEICHHARDT OVAL	993m	North
1347995	Rubbish Depot	LEICHHARDT GARBAGE DEPOT	996m	East
1347782	Place Of Worship	BAPTIST CHURCH	998m	South West

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Topographic Features

40-76 William Street, Leichhardt, NSW 2040

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)
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Major Easements

What Major Easements exist within the dataset buffer?
Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120117628	Primary	Undefined		177m	South West
120118731	Primary	Undefined		202m	South West
120120025	Primary	Undefined		528m	South West
120115815	Primary	Undefined		643m	South West

Easements Data Source: © Land and Property Information (2015)
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Topographic Features

40-76 William Street, Leichhardt, NSW 2040

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)
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National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

NPWS Data Source: © NSW Department of Finance, Services & Innovation (2018)
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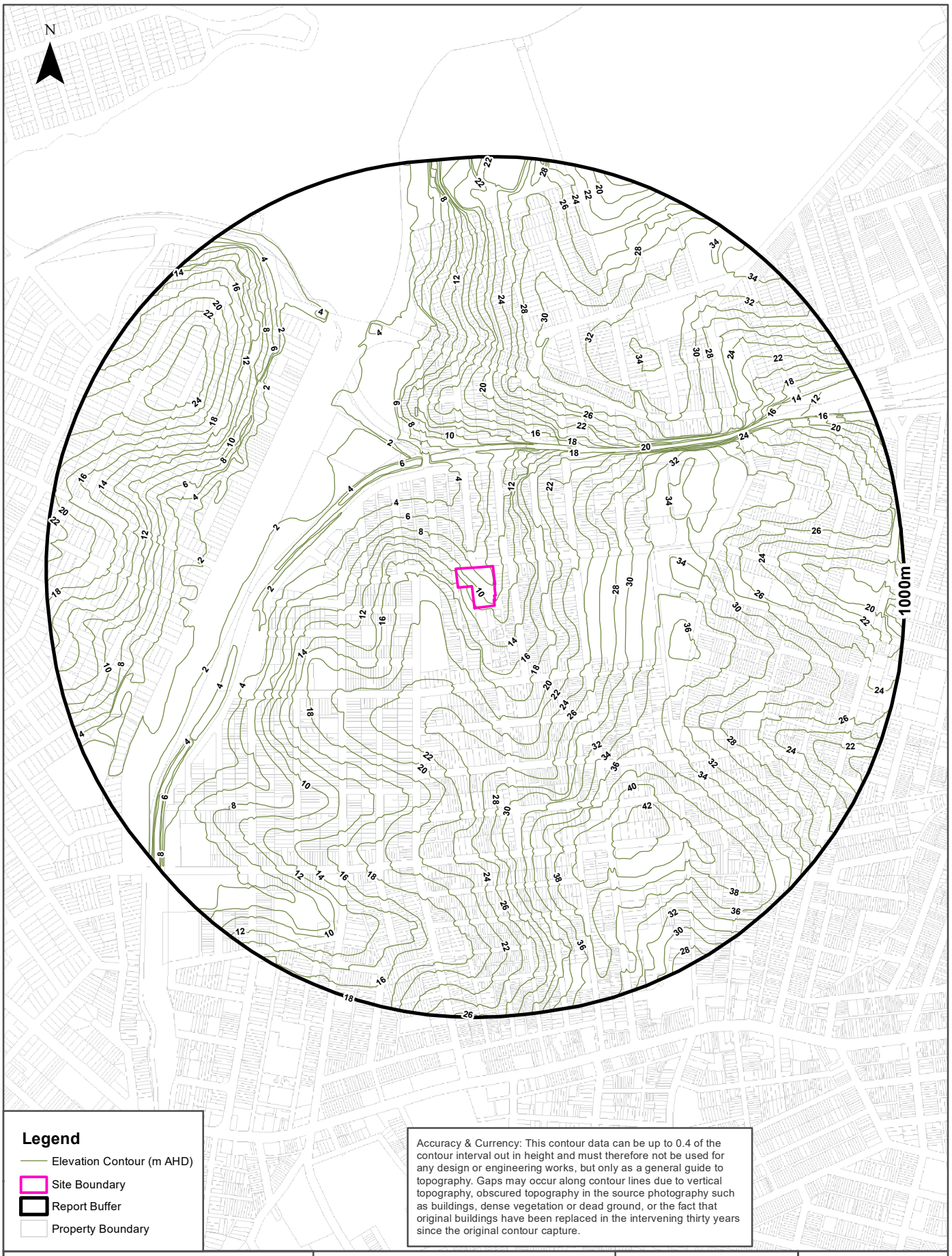
Elevation Contours (m AHD)

40-76 William Street, Leichhardt, NSW 2040



Hydrogeology & Groundwater

40-76 William Street, Leichhardt, NSW 2040

Hydrogeology

Description of aquifers on-site:

Description
Porous, extensive highly productive aquifers

Description of aquifers within the dataset buffer:

Description
Porous, extensive highly productive aquifers

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
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Botany Groundwater Management Zones

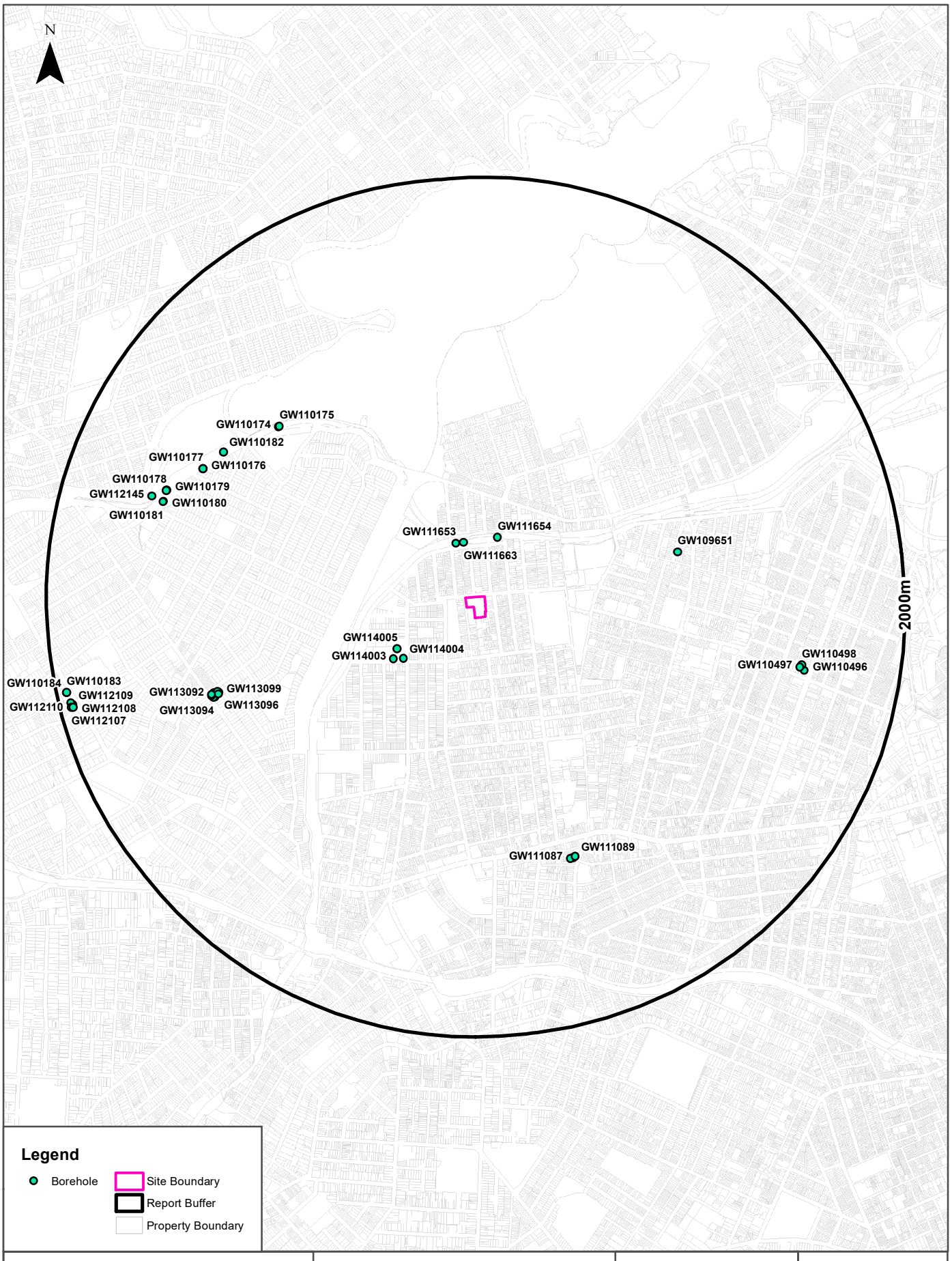
Groundwater management zones relating to the Botany Sand Beds aquifer within the dataset buffer:

Management Zone No.	Restriction	Distance	Direction
N/A	No records in buffer		

Botany Groundwater Management Zones Data Source : NSW Department of Primary Industries

Groundwater Boreholes

40-76 William Street, Leichhardt, NSW 2040



Hydrogeology & Groundwater

40-76 William Street, Leichhardt, NSW 2040

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW111 653	10BL605 002	Bore	Other Govt	Monitoring Bore	Monitoring Bore		09/11/2011	2.40	2.50					263m	North
GW111 663	10BL605 001	Bore	Other Govt	Monitoring Bore	Monitoring Bore		09/11/2011	4.00	4.00					263m	North
GW111 654	10BL605 000	Bore	Other Govt	Monitoring Bore	Monitoring Bore		09/11/2011	3.00	3.00					288m	North
GW114 005	10BL605 487	Bore	Private	Monitoring Bore	Monitoring Bore		06/12/2013	8.00	8.00					386m	South West
GW114 004	10BL605 487	Bore	Private	Monitoring Bore	Monitoring Bore		06/12/2013	6.20	6.20					387m	South West
GW114 003	10BL605 487	Bore	Private	Monitoring Bore	Monitoring Bore		06/12/2013	6.15	6.15					425m	South West
GW109 651	10BL602 525	Bore	Private	Monitoring Bore	Monitoring Bore		27/05/2008	2.50	2.55	690	0.42	0.500		946m	East
GW110 175	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		22/11/2004	3.75	3.75		1.90			1207m	North West
GW110 174	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		27/11/2004	30.10	30.10		1.90			1209m	North West
GW111 089	10BL601 754	Bore	Private	Monitoring Bore	Monitoring Bore		03/05/2007	9.00	9.00					1223m	South
GW111 087	10BL601 754	Bore	Private	Monitoring Bore	Monitoring Bore		03/05/2007	8.70	8.70					1224m	South
GW111 088	10BL601 754	Bore	Private	Monitoring Bore	Monitoring Bore		03/05/2007	9.00	9.00					1224m	South
GW113 099	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	13/04/2011	6.00	6.00					1250m	West
GW113 097	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	11/04/2011	6.00	6.00					1254m	West
GW113 096	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	13/04/2011	5.60	5.60					1254m	West
GW113 098	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	12/04/2011	6.00	6.00					1271m	West
GW113 095	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	13/04/2011	5.00	5.00					1273m	West
GW113 094	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	12/04/2011	4.85	4.85					1282m	West
GW113 092	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	12/04/2011	5.00	5.00					1284m	West
GW113 093	10BL604 579	Bore	Private	Monitoring Bore	Monitoring Bore	BP - Haberfield	12/04/2011	5.60	5.60					1286m	West
GW110 182	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		10/12/2004	7.20	7.20					1348m	North West
GW110 176	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		02/12/2004	37.01	37.01					1394m	North West
GW110 177	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		02/12/2004	3.75	3.75					1395m	North West
GW110 181	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		07/12/2004	3.10	3.10					1511m	West
GW110 180	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		07/12/2004	34.00	34.00					1511m	West
GW110 179	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		23/06/2009	5.24	5.24					1514m	West
GW110 178	10BL163 466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		25/11/2004	48.03	48.03					1515m	West

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW110497	10BL603107	Well	Private	Monitoring Bore	Monitoring Bore		17/06/2009	4.00	4.00		2.40			1521m	East
GW110498	10BL603107	Well	Private	Monitoring Bore	Monitoring Bore		17/06/2009	4.00	4.00		2.30			1527m	East
GW110496	10BL603107	Well	Private	Monitoring Bore	Monitoring Bore		16/06/2009	4.00	4.00		1.75			1545m	East
GW112145	10BL160939	Bore	Private	Monitoring Bore	Monitoring Bore		12/12/2002	29.75	29.75					1572m	West
GW112109	10BL161525	Bore	Private	Monitoring Bore	Monitoring Bore		13/11/2002	4.00	4.00					1936m	West
GW112108	10BL161525	Bore	Private	Monitoring Bore	Monitoring Bore		01/11/2002	8.50	8.50					1937m	West
GW112110	10BL161525	Bore	Private	Monitoring Bore	Monitoring Bore		13/11/2002	4.00	4.00					1941m	West
GW112107	10BL161525	Bore	Private	Monitoring Bore	Monitoring Bore		13/11/2002	5.00	5.00					1944m	West
GW110183	10BL163466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		20/12/2004	30.00	13.20					1950m	West
GW110184	10BL163466	Bore	Other Govt	Monitoring Bore	Monitoring Bore		20/12/2004	3.00	3.00					1951m	West

Borehole Data Source : NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation for all bores prefixed with GW. All other bores © Commonwealth of Australia (Bureau of Meteorology) 2015. Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Hydrogeology & Groundwater

40-76 William Street, Leichhardt, NSW 2040

Driller's Logs

Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW111653	0.00m-0.10m GRAVEL,SAND,CLAY 0.10m-0.40m FILL CLAYEY SAND,ORANGE,WHITE,PINK,SANDSTONE 0.40m-0.90m SAND CLAYEY,BROWN,GRAINED GRAVELS 0.90m-1.50m SAND ORANGE,M/GRAINED DRY 1.50m-1.80m BECOMING MOIST 1.80m-2.50m SAND GREY MOIST TO WET,HARD SANDSTONE	263m	North
GW111663	0.00m-0.10m ROAD BASE FILL GRAVELLY CLAY GREY,MOIST 0.10m-1.10m SANDY CLAY,ORANGE BROWN,MOIST 1.10m-2.30m PALE GREY AND RED HIGH PLASTICITY,SLIGHTLY MOIST 2.30m-3.80m SANDSDTONE WHITE 3.80m-4.00m SANDSTONE ORANGE/GREY AND SATURATED	263m	North
GW111654	0.00m-0.10m FILL,SANDY GRAVELLY CLAY,BROWN 0.10m-0.85m FILL,SAND, PALE BROWN,GRAVELS,SANDSTONES 0.85m-1.10m SANDSTONE WEATHERED,ORANGE,BROWN 1.10m-3.00m SANDSTONE WHITE POWDERY	288m	North
GW109651	0.00m-1.00m FILL.YELLOW ORANGE,SANDSTONE 1.00m-1.70m CLAY,YELLOW,WEATHERED,MED.PLASTICITY 1.70m-2.20m SHALE,RED GREY,WEATHERED,DRY 2.20m-2.55m SANDSTONE L/GREY,HIGHLY WEATHERED	946m	East
GW110175	0.00m-1.00m FILL 1.00m-2.50m SAND, FINE TO MEDIUM 2.50m-3.75m SAND, FINE TO MEDIUM SILTY	1207m	North West
GW110174	0.00m-1.00m FILL 1.00m-2.50m SAND, FINE TO MEDIUM 2.50m-3.75m SAND, FINE TO MEDIUM AND SILTY 3.75m-14.72m SANDSTONE 14.72m-14.80m SHALE 14.80m-14.90m SANDSTONE 14.90m-18.00m SHALE 18.00m-30.10m SANDSTONE	1209m	North West
GW111089	0.00m-0.20m CONCRETE 0.20m-0.30m FILL,SANDY CLAY BROWN 0.30m-1.20m CLAY,DENSE,PLASTIC,ORANGE 1.20m-9.00m SILT CLAYEY,RED AND GREY,DRY,SILTSTONE FRAGS.	1223m	South
GW111087	0.00m-0.15m CONCRETE 0.15m-1.50m CLAY, DENSE PLASTIC,TAN AND RED 1.50m-8.70m SILT,CLAYEY,GREY BROWN,MOIST,WET	1224m	South
GW111088	0.00m-0.15m CONCRETE 0.15m-1.50m CLAY,DENSE,PLASTIC,TAN,ORANGE,RED,STIFF 1.50m-9.00m SILT CLAYEY,GREY AND RED,LOOSE,DRY,MOIST	1224m	South
GW110182	0.00m-1.45m FILL 1.45m-6.00m SANDY CLAY 6.00m-7.20m FINE COARSE SAND	1348m	North West
GW110176	0.00m-0.50m FILL 0.50m-2.40m SANDY CLAY 2.40m-3.75m CLAYEY SAND 3.75m-3.77m SANDY CLAY 3.77m-37.01m SANDSTONE	1394m	North West
GW110177	0.00m-1.50m FILL 1.50m-2.40m SANDY CLAY 2.40m-3.75m CLAYEY SAND	1395m	North West

Groundwater No	Drillers Log	Distance	Direction
GW110180	0.00m-1.70m FILL 1.70m-2.40m SANDY CLAY 2.40m-3.10m SANDSTONE 3.10m-20.30m SANDSTONE 20.30m-20.50m SHALE 20.50m-34.00m SANDSTONE	1511m	West
GW110181	0.00m-1.70m FILL 1.70m-2.40m SANDY CLAY 2.40m-3.10m SANSDSTONE	1511m	West
GW110179	0.00m-0.50m FILL 0.50m-4.00m SILTY CLAY 4.00m-5.24m SANDSTONE	1514m	West
GW110178	0.00m-0.50m FILL 0.50m-4.00m SILTY CLAY 4.00m-5.24m SANDSTONE 5.24m-14.50m SANDSTONE 14.50m-15.50m BASALT 15.50m-17.50m SANDSTONE 17.50m-22.00m BASALT 22.00m-40.10m SANDSTONE 40.10m-40.40m BASALT 40.40m-48.03m SANDSTONE	1515m	West
GW110497	0.00m-0.10m CONCRETE 0.10m-0.35m FILL,SAND,FINE GRINED,L/BROWN 0.35m-1.50m FILL,COBBLY SAND,FINE TO COARSE GRAINED 1.50m-2.70m CLAY, LOW PLASTICITY 2.70m-4.00m WEATHERED BEDROCK,SANDSTONE GREY/BROWN	1521m	East
GW110498	0.00m-0.20m CONCRETE 0.20m-0.80m FILL,SAND,WITH COBBLES AND BRICKS 0.80m-1.70m FILL,CRUSHED SANDSTONE 1.70m-3.30m CLAY,L/PLASTICITY,BROWN AND GREY 3.30m-4.00m WEATHERED BEDROCK,SANDSTONE,GREY	1527m	East
GW110496	0.00m-0.15m CONCRETE 0.15m-0.90m FILL,SAND 0.90m-1.75m CLAY WITH SOME SILT 1.75m-4.00m BEDROCK WEATHERED,SANDSTONE,FINE GRAINED	1545m	East
GW110183	0.00m-0.50m FILL 0.50m-1.50m SILTY CLAY 1.50m-3.00m SHALE 3.00m-13.20m SHALE 13.20m-13.20m SANDSTONE	1950m	West
GW110184	0.00m-0.50m FILL 0.50m-1.50m SILTY CLAY 1.50m-3.00m SHALE	1951m	West

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp
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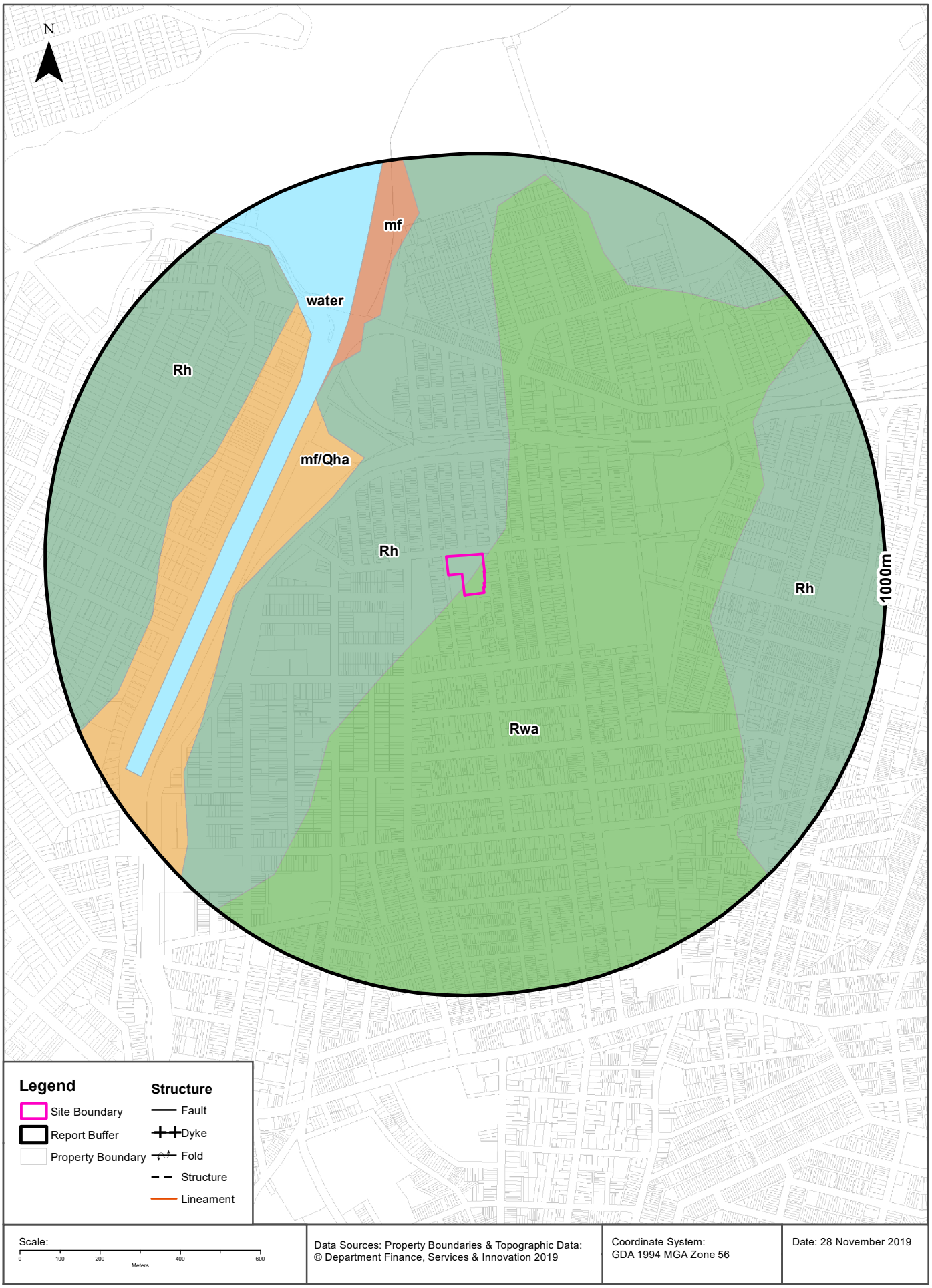
Geology 1:100,000

40-76 William Street, Leichhardt, NSW 2040



Geology

40-76 William Street, Leichhardt, NSW 2040

Geological Units

What are the Geological Units onsite?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Rh	Medium to coarse grained quartz sandstone, very minor shale and laminate lenses				Triassic		Sydney	1:100,000
Rwa	Black to dark grey shale and laminate	Ashfield Shale	Wianamatta Group		Triassic		Sydney	1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
mf	Man-made fill. Dredged estuarine sand and mud, demolition rubble, industrial and household waste.				Quaternary		Sydney	1:100,000
mf/Qha	Man-made fill (dredged estuarine sand and mud, demolition rubble, industrial and household waste) overlying silty to peaty quartz sand, silt and clay with ferruginous & humic cementation in places and common shell layers				Quaternary		Sydney	1:100,000
Rh	Medium to coarse grained quartz sandstone, very minor shale and laminate lenses				Triassic		Sydney	1:100,000
Rwa	Black to dark grey shale and laminate	Ashfield Shale	Wianamatta Group		Triassic		Sydney	1:100,000
water							Sydney	1:100,000

Geological Structures

What are the Geological Structures onsite?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

Geological Data Source : NSW Department of Industry, Resources & Energy
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Naturally Occurring Asbestos Potential

40-76 William Street, Leichhardt, NSW 2040

Naturally Occurring Asbestos Potential

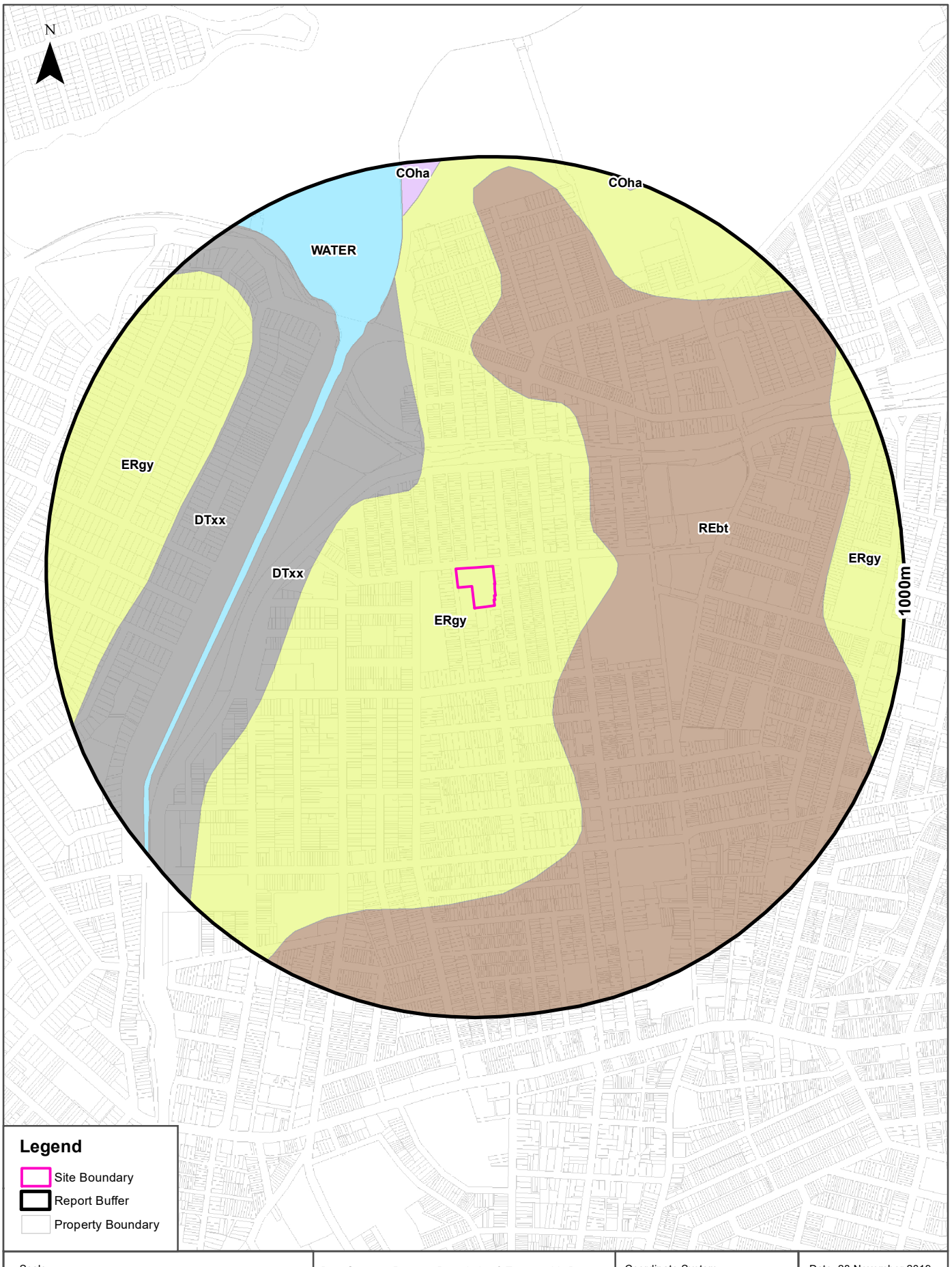
Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Mining Subsidence District Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Soil Landscapes

40-76 William Street, Leichhardt, NSW 2040



Soils

40-76 William Street, Leichhardt, NSW 2040

Soil Landscapes

What are the onsite Soil Landscapes?

Soil Code	Name	Group	Process	Map Sheet	Scale
ERgy	GYMEA		EROSIONAL	Sydney	1:100,000

What are the Soil Landscapes within the dataset buffer?

Soil Code	Name	Group	Process	Map Sheet	Scale
COha	HAWKESBURY		COLLUVIAL	Sydney	1:100,000
DTxx	DISTURBED TERRAIN		DISTURBED TERRAIN	Sydney	1:100,000
ERgy	GYMEA		EROSIONAL	Sydney	1:100,000
REbt	BLACKTOWN		RESIDUAL	Sydney	1:100,000
WATER	WATER		WATER	Sydney	1:100,000

Soils Landscapes Data Source : NSW Office of Environment and Heritage
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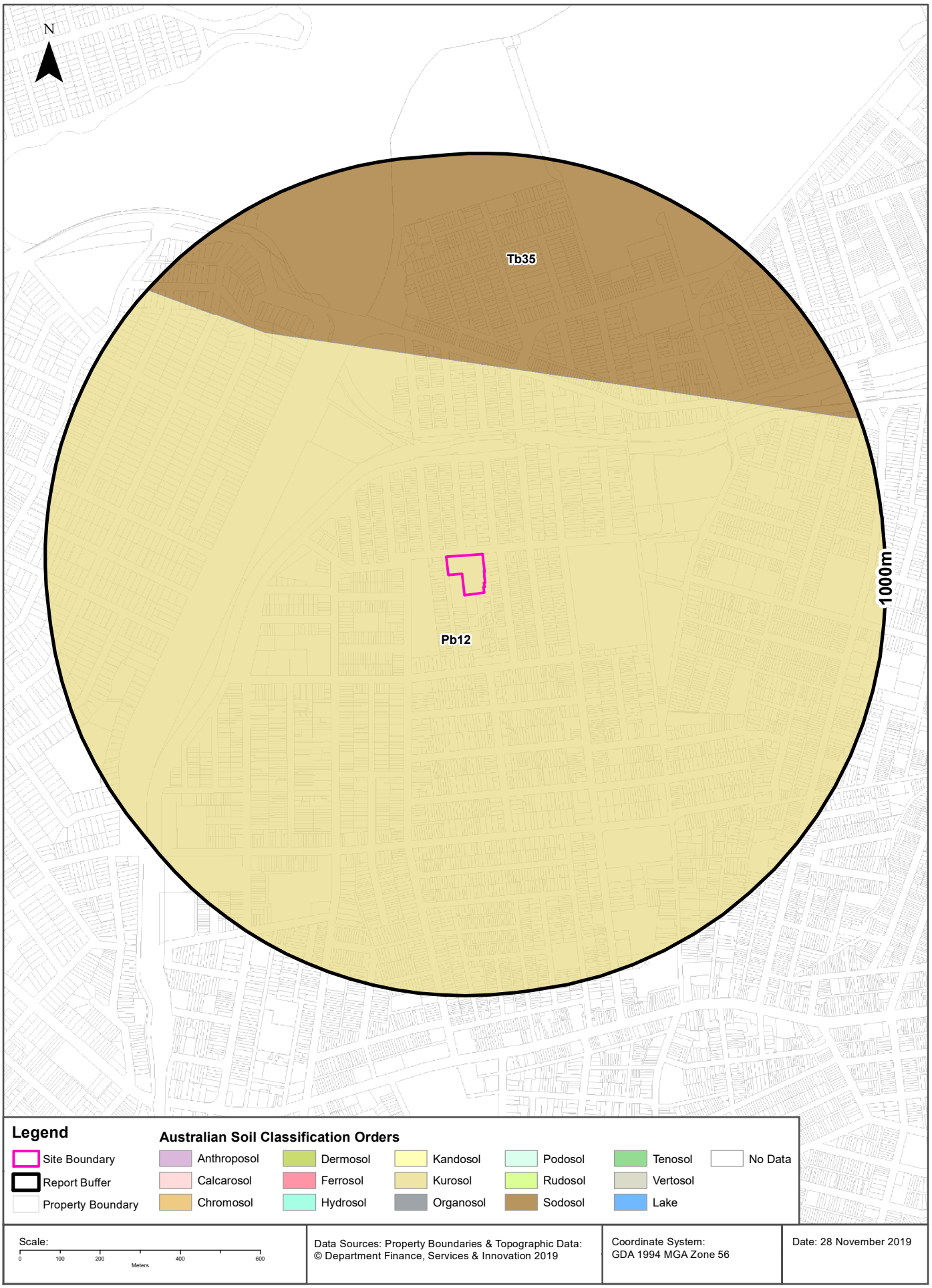
Atlas of Australian Soils

40-76 William Street, Leichhardt, NSW 2040



Soils

40-76 William Street, Leichhardt, NSW 2040

Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance
Pb12	Kurosol	Gently rolling to rounded hilly country with some steep slopes and broad valleys: chief soils are hard acidic red soils (Dr2.21) with hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41) on lower slopes and in valleys. Associated are small areas of various soils including (Gn3.54) on some ridges, (Dr3.31) on some slopes; (Dr2.23) in saddles and some mid-slope positions, and some low- lying swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Small areas of other soils such as (Db1.2) are likely throughout.	0m
Tb35	Sodosol	Dissected plateau remnants--flat to undulating ridge tops with moderate to steep side slopes: chief soils are hard acidic yellow and yellow mottled soils (Dy3.41), (Dy2.21), and (Dy2.41) and hard acidic red soils (Dr2.21); many shallow profiles occur and profile thickness varies considerably over short distances. Associated are: (Gn3.54), (Gn3.14), and possibly other (Gn3) soils; (Db1.2) soils on some ridges; (Dy5.81) soils in areas transitional to unit Mb2; soils common to unit Mb2; and eroded lateritic remnants. Small areas of other soils are likely. Flat ferruginous shale or sandstone fragments are common on and/or in and/or below the soils of this unit.	469m

Atlas of Australian Soils Data Source: CSIRO
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Acid Sulfate Soils

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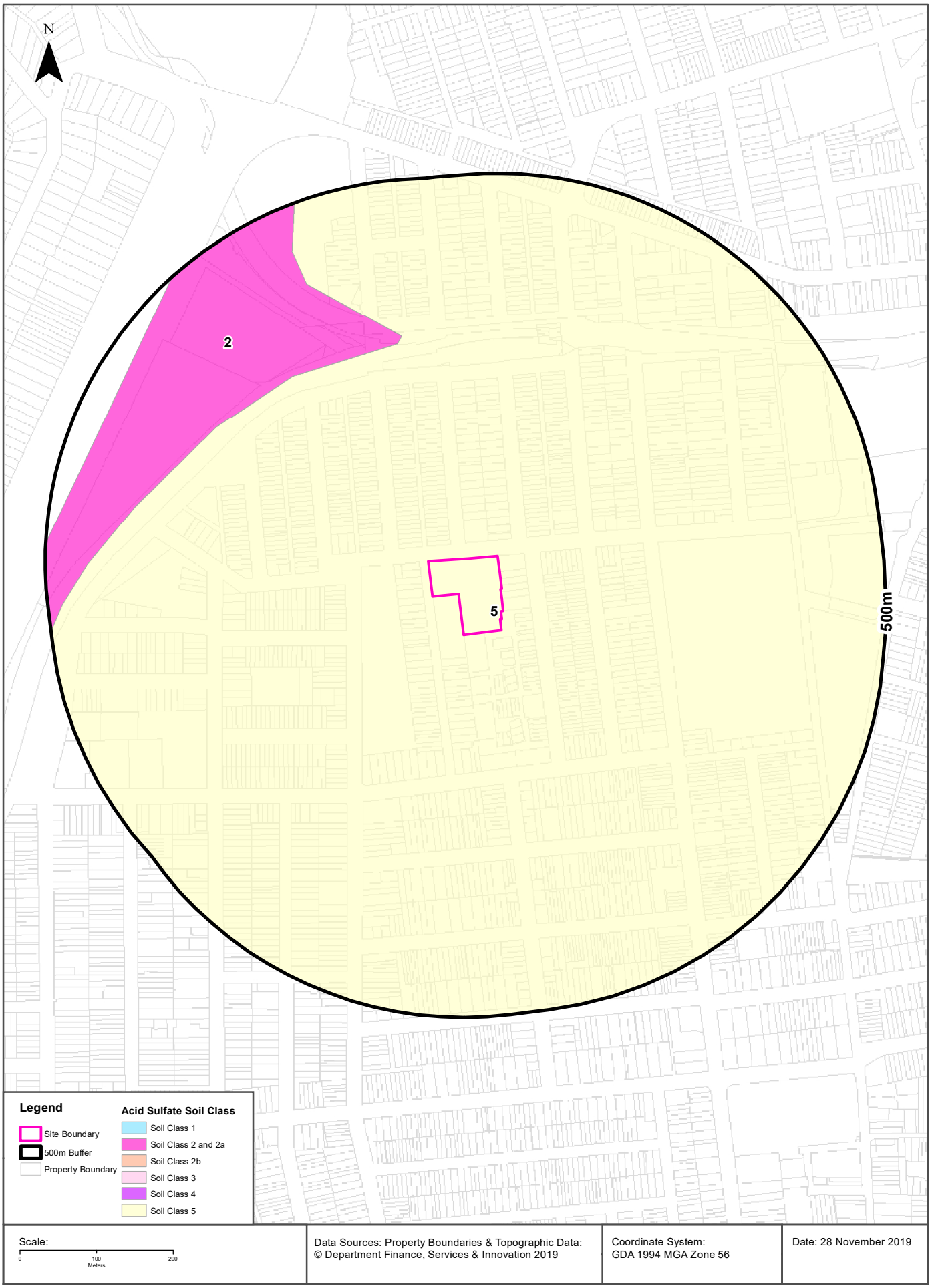

Acid Sulfate Soils

40-76 William Street, Leichhardt, NSW 2040

Environmental Planning Instrument - Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI Name
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	Leichhardt Local Environmental Plan 2013

If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
2	Works below natural ground surface present an environmental risk; Works by which the watertable is likely to be lowered present an environmental risk	Leichhardt Local Environmental Plan 2013	284m	North West

Acid Sulfate Data Source Accessed 23/10/2018: NSW Crown Copyright - Planning and Environment
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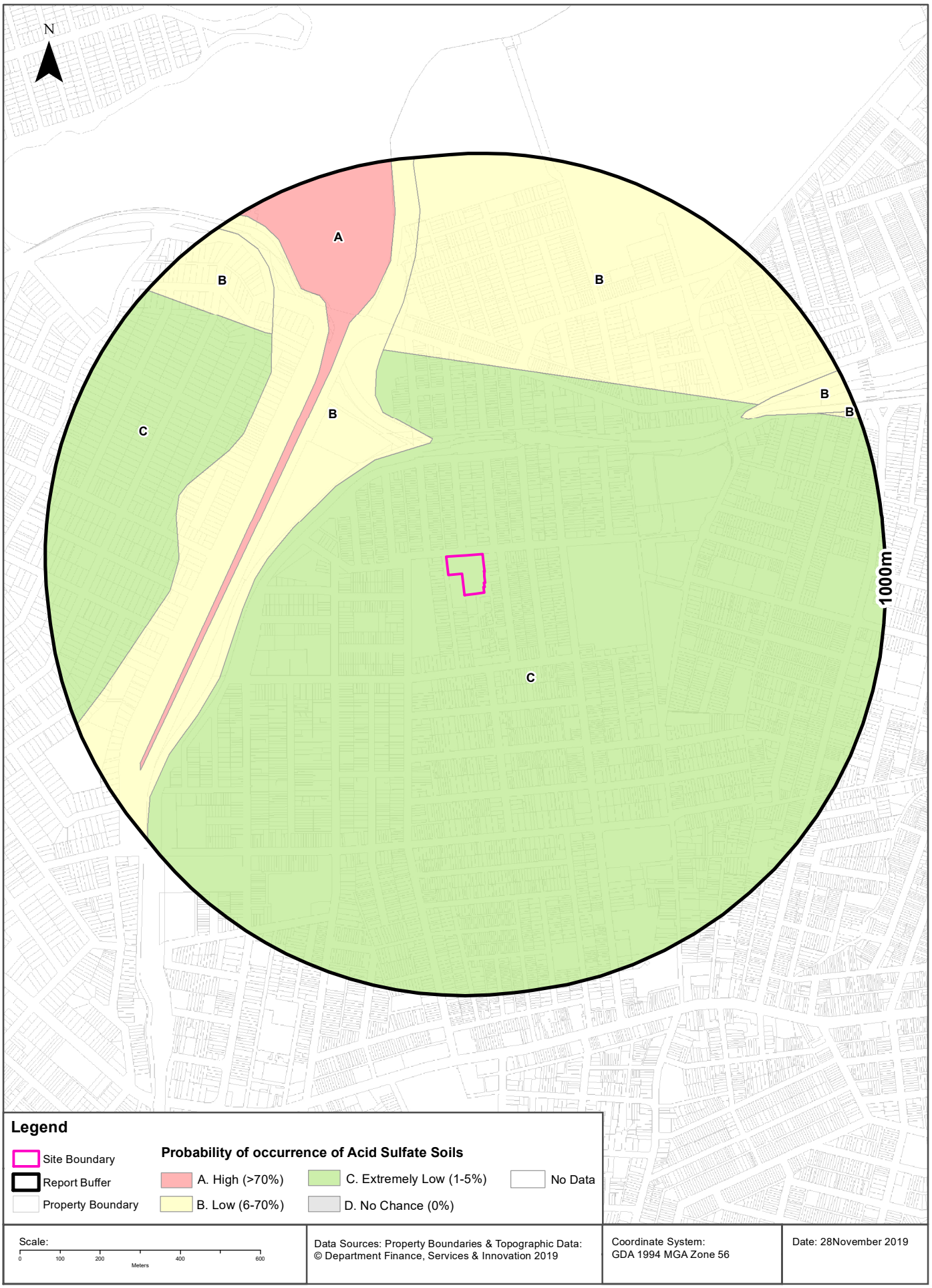
Atlas of Australian Acid Sulfate Soils

40-76 William Street, Leichhardt, NSW 2040



Legend

- Site Boundary
- Report Buffer
- Property Boundary

Probability of occurrence of Acid Sulfate Soils

- A. High (>70%)
- B. Low (6-70%)
- C. Extremely Low (1-5%)
- D. No Chance (0%)
- No Data

Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2019

Coordinate System: GDA 1994 MGA Zone 56

Date: 28November 2019

Acid Sulfate Soils

40-76 William Street, Leichhardt, NSW 2040

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
B	Low Probability of occurrence. 6-70% chance of occurrence.	284m
A	High Probability of occurrence. >70% chance of occurrence.	462m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO
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Dryland Salinity

40-76 William Street, Leichhardt, NSW 2040

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A	N/A	N/A

Dryland Salinity Data Source : National Land and Water Resources Audit
The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.
In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
N/A	Outside Data Coverage			

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage
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Mining Subsidence Districts

40-76 William Street, Leichhardt, NSW 2040

Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
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State Environmental Planning Policy

40-76 William Street, Leichhardt, NSW 2040

State Significant Precincts

What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No Records in Buffer							

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EPI Planning Zones

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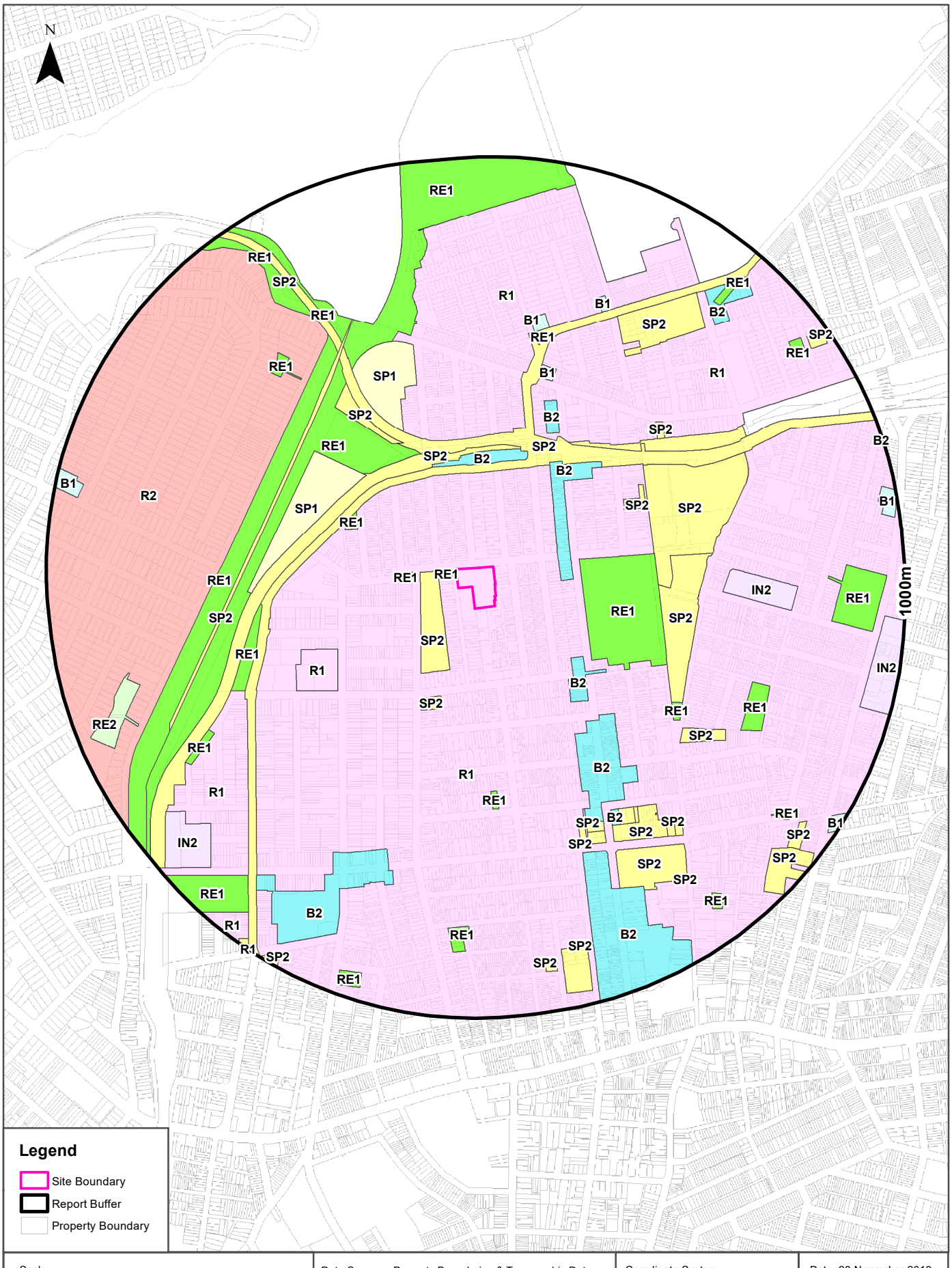

Environmental Planning Instrument

40-76 William Street, Leichhardt, NSW 2040

Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R1	General Residential		Leichhardt Local Environmental Plan 2013	24/10/2014	24/10/2014	17/02/2017	Amendment No 3	0m	Onsite
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		12m	West
SP2	Infrastructure	Place of Worship and Education Facility	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		46m	South West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		105m	West
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		159m	North East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		209m	East
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		223m	South East
SP2	Infrastructure	Place of Public Worship	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		228m	South
SP2	Infrastructure	Classified Road	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		232m	East
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		252m	North
SP2	Infrastructure	Railway	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		256m	West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		261m	North West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		296m	West
R1	General Residential		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		316m	North
SP1	Special Activities	Canal Road Arts Precinct	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		318m	North West
R1	General Residential		Leichhardt Local Environmental Plan 2013	03/07/2015	03/07/2015	17/02/2017	Amendment No 5	330m	South West
SP2	Infrastructure	Stormwater Management	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		335m	North West
R1	General Residential		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		337m	North East
SP2	Infrastructure	Place of Public Worship	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		348m	North East
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		350m	North East
SP2	Infrastructure	Railway	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		354m	North East
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		356m	South East
SP1	Special Activities	Canal Road Arts Precinct	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		360m	North West
SP2	Infrastructure	Transport Depot	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		392m	East
SP2	Infrastructure	Educational Establishment	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		396m	East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		448m	South
SP2	Infrastructure	Drainage	Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		469m	West

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
B1	Neighbourhood Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		475m	North
RE1	Public Recreation		Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		477m	West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		481m	West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		489m	South East
SP2	Infrastructure	Community Facilities	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		507m	North East
R2	Low Density Residential		Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		523m	West
R1	General Residential		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		539m	South East
SP2	Infrastructure	Electricity Supply	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		544m	South East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		550m	North
IN2	Light Industrial		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		552m	East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		552m	North
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		571m	South East
SP2	Infrastructure	Place of Public Worship	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		571m	South East
SP2	Infrastructure	Place of Public Worship	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		576m	South
SP2	Infrastructure	Place of Public Worship and Community Facilities	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		578m	South East
R1	General Residential		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		579m	South West
B1	Neighbourhood Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		581m	North
SP2	Infrastructure	Boarding House	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		594m	South East
SP2	Infrastructure	Place of Public Worship	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		595m	South East
RE1	Public Recreation		Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		598m	North West
SP2	Infrastructure	Public Administration Building and Car Park	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		598m	South East
SP2	Infrastructure	Road and Traffic Facility	Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		603m	West
SP2	Infrastructure	Educational Establishment	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		606m	North East
RE1	Public Recreation		Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		619m	North West
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		624m	South West
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		638m	South
SP2	Infrastructure	Electricity Supply	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		638m	South East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		654m	South East
SP2	Infrastructure	Community Facilities	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		665m	South East
SP2	Infrastructure	Educational Establishment	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		666m	South East
SP2	Infrastructure	Emergency Services Facility	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		675m	South East
B1	Neighbourhood Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		676m	North East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		694m	South West
RE1	Public Recreation		Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		706m	North West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		775m	South
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		800m	North East
SP2	Infrastructure	Electricity Supply	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		807m	South East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		810m	East
SP2	Infrastructure	Gas Transmission	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		810m	South East
RE2	Private Recreation		Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		813m	West
IN2	Light Industrial		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		832m	South West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		841m	North East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		843m	South East
SP2	Infrastructure	Public Administration Building	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		844m	South
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		854m	South West
SP2	Infrastructure	Educational Establishment	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		872m	South
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		876m	South East
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		895m	North East
SP2	Infrastructure	Place of Worship and Education Facility	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		896m	South East
SP2	Infrastructure	Community Facilities	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		909m	South East
IN2	Light Industrial		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		922m	East
R1	General Residential		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		924m	South West
B1	Neighbourhood Centre		Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	11/11/2016		933m	West
RE1	Public Recreation		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		933m	South
SP2	Infrastructure	Educational Establishment	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		940m	North East
B1	Neighbourhood Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		951m	East
SP2	Infrastructure	Educational Establishment	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		965m	South West
B1	Neighbourhood Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		967m	South East
SP2	Infrastructure	Place of Public Worship	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		976m	South West
B2	Local Centre		Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017		991m	East

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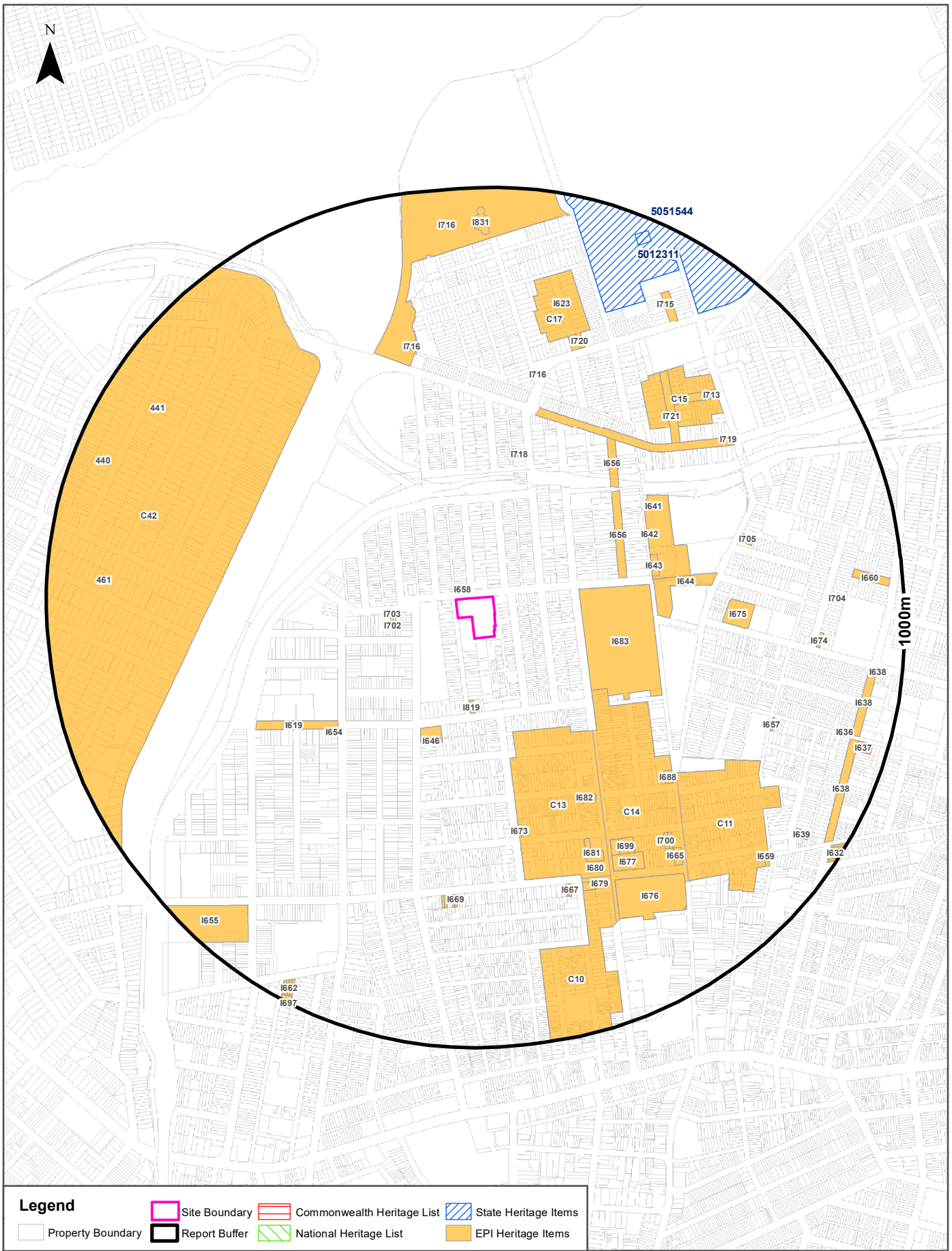
Heritage Items

40-76 William Street, Leichhardt, NSW 2040



Legend

Property Boundary	Site Boundary	Commonwealth Heritage List	State Heritage Items
	Report Buffer	National Heritage List	EPI Heritage Items

Scale: 0 100 200 400 600 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2019 Heritage - NSW Crown Copyright - Planning & Environment	Coordinate System: GDA 1994 MGA Zone 56	Date: 28 November 2019

Heritage

40-76 William Street, Leichhardt, NSW 2040

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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National Heritage List

What are the National Heritage List Items located within the dataset buffer?
Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5051544	Callan Park Conservation Area & Buildings	Balmain Road, Lilyfield	Leichhardt	02/04/1999	00818	1976	747m	North East
5012311	Rozelle Hospital - Broughton Hall	Balmain Road, Lilyfield	Leichhardt	02/04/1999	00831	2987	929m	North East

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage
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Environmental Planning Instrument - Heritage

What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I658	Former general store, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	20m	North West
I702	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	150m	West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I819	Corner shop and residence, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	24/10/2014	24/10/2014	17/02/2017	150m	South
I703	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	157m	West
I683	Pioneers Memorial Park	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	209m	East
I618	Congregational church and hall, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	228m	South
C13	Whaleyborough Estate Heritage Conservation Area	Conservation Area - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	237m	South East
I646	House, 'Elswick', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	256m	South
C14	Wetherill Estate Heritage Conservation Area	Conservation Area - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	270m	South East
I656	Street trees-row of Brush Box and 1 Ficus hillii	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	310m	North East
I718	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	345m	North
I619	Street trees-avenue of Brush Box	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	386m	South West
I641	Former SRA Tram shed, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	392m	East
I643	Former SRA office and amenities building, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	392m	East
I644	Former SRA cable store and traffic office, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	392m	East
I656	Street trees-row of Brush Box and 1 Ficus hillii	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	394m	North East
I654	Former corner shop and residence, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	400m	South West
I642	Mature Fig tree	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	407m	North East
I682	Royal Hotel, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	438m	South East
I719	Street trees, avenue of Brush Box and 1Brachychiton	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	455m	North East
I673	Former corner shop and residence, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	465m	South
I688	Leichhardt Hotel, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	528m	South East
C42	Haberfield Conservation Area (nominated area of State significance)	Conservation Area - General	Local	Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	27/10/2017	539m	West
I681	All Souls Church Rectory, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	540m	South East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I716	Leichhardt Park includes Leichhardt Ovals and Aquatic Centre, including interiors	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	551m	North
I675	Former factory, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	552m	East
C11	Leichhardt Street/Stanley Street Heritage Conservation Area	Conservation Area - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	554m	South East
C15	Austenham Estate Conservation Area	Conservation Area - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	561m	North East
I678	Former Leichhardt Post Office, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	571m	South East
I721	Street trees-avenue of Brush Box and 1Brachychiton	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	575m	North East
I699	Former Methodist Central Hall, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	578m	South East
I716	Leichhardt Park includes Leichhardt Ovals and Aquatic Centre, including interiors	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	582m	North
I680	All Souls Church, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	595m	South East
I677	Leichhardt Town Hall, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	606m	South East
I716	Leichhardt Park includes Leichhardt Ovals and Aquatic Centre, including interiors	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	17/02/2017	17/02/2017	17/02/2017	615m	North
I705	House, 'Rutherford', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	616m	East
I669	Semi-detached houses, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	626m	South
I670	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	627m	South
I668	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	629m	South
C10	Excelsior Subdivision Heritage Conservation Area	Conservation Area - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	629m	South
I671	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	630m	South
I667	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	630m	South
I623	Street trees-avenue of Brush Box	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	631m	North
I672	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	632m	South
I700	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	632m	South East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
C17	Campbell Estate Heritage Conservation Area	Conservation Area - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	636m	North
I701	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	637m	South East
I666	Former Presbyterian Church, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	638m	South
I720	House, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	642m	North
I713	Street trees- avenue of Brush Box and one Brachychiton	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	644m	North East
I679	Corner shop and residence, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	646m	South East
I676	Leichhardt Public School, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	663m	South East
I665	Leichhardt Fire Station, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	675m	South East
I657	Former corner shop and residence, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	706m	East
I674	Former corner shop and residence, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	783m	East
I715	Street trees, row of 3 Camphor Laurels	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	798m	North East
I704	'Grenfell Cottage', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	818m	East
I659	House, 'Fernleigh', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	842m	South East
441	House	Item - General	Local	Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	27/10/2017	842m	North West
461	House	Item - General	Local	Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	27/10/2017	845m	West
I655	Former house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	854m	South West
I636	Office and residence, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	871m	East
I639	Child care centre ' Rose Cottage' , including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	871m	South East
I660	Street trees, Brush Box plantation	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	875m	East
I831	4 fig trees	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	884m	North
I638	Street trees, row of Port Jackson Figs	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	900m	East
I638	Street trees, row of Port Jackson Figs	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	902m	South East
440	House	Item - General	Local	Ashfield Local Environmental Plan 2013	23/12/2013	23/12/2013	27/10/2017	903m	West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I637	Flats 'Lammer Muir', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	922m	East
I638	Street trees, row of Port Jackson Figs	Item - Landscape	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	940m	East
I661	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	941m	South West
I662	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	945m	South West
I663	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	950m	South West
I664	Semi-detached house, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	954m	South West
I635	'Thorby Buildings', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	967m	South East
I634	'Thorby Buildings', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	968m	South East
I633	'Thorby Buildings', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	970m	South East
I632	'Thorby Buildings', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	972m	South East
I631	'Thorby Buildings', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	975m	South East
I630	'Thorby Buildings', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	976m	South East
I629	'Thorby Buildings', including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	978m	South East
I698	House, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	981m	South West
I697	House, including interiors	Item - General	Local	Leichhardt Local Environmental Plan 2013	23/12/2013	03/02/2014	17/02/2017	996m	South West

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Natural Hazards

40-76 William Street, Leichhardt, NSW 2040

Bush Fire Prone Land

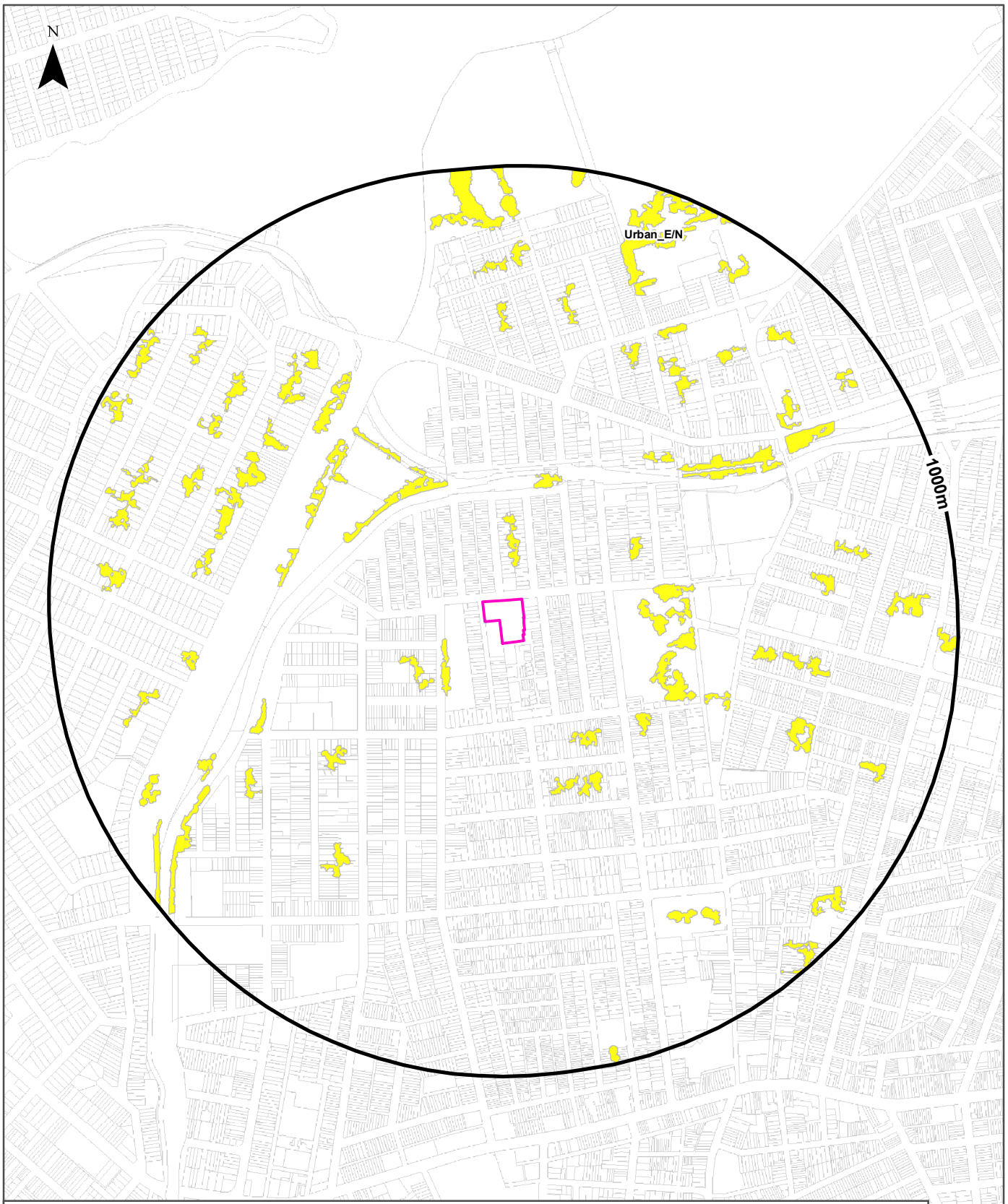
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
No records within buffer		

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

Ecological Constraints - Native Vegetation & RAMSAR Wetlands

40-76 William Street, Leichhardt, NSW 2040



Legend

Site Boundary	Rainforest	Forested Wetlands	Grasslands	Artificial Wetlands	RAMSAR Wetlands
Report Buffer	Wet Sclerophyll Forests	Grassy Woodlands	Freshwater Wetlands	Water	
Property Boundary	Dry Sclerophyll Forests	Heathlands	Saline Wetlands	Other	

Scale: 0 100 200 400 600 Meters

Propert Boundary Data Source:
© Department Finance, Services & Innovation 2019

Coordinate System:
GDA 1994 MGA Zone 56

Date: 28 November 2019

Ecological Constraints

40-76 William Street, Leichhardt, NSW 2040

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Map Unit Name	Threatened Ecological Community NSW	Threatened Ecological Community EPBC Act	Understorey	Disturbance	Disturbance Index	Dominant Species	Dist	Direction
Urban_E/N	Urban_E/N: Urban Exotic/Native			00: Not assessed	00: Not assessed	0: Not assessed	Urban Exotic/Native	72m	North

Native Vegetation of the Sydney Metropolitan Area : NSW Office of Environment and Heritage
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Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Environment

Ecological Constraints

40-76 William Street, Leichhardt, NSW 2040

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
N/A	No records within buffer				

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
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Ecological Constraints

40-76 William Street, Leichhardt, NSW 2040

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
N/A	No records within buffer				

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Ecological Constraints

40-76 William Street, Leichhardt, NSW 2040

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Crinia tinnula	Wallum Froglet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Amaurornis moluccana	Pale-vented Bush-hen	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardea ibis	Cattle Egret	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Ardenna grisea	Sooty Shearwater	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Ardenna pacificus	Wedge-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Arenaria interpres	Ruddy Turnstone	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris alba	Sanderling	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Listed	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Endangered	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris mauri	Western Sandpiper	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris tenuirostris	Great Knot	Vulnerable	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Carterornis leucotis	White-eared Monarch	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Certhionyx variegatus	Pied Honeyeater	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Charadrius leschenaultii	Greater Sand-plover	Vulnerable	Not Sensitive	Vulnerable	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Charadrius mongolus	Lesser Sand-plover	Vulnerable	Not Sensitive	Endangered	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Charadrius veredus	Oriental Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Chlidonias leucopterus	White-winged Black Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Diomedea exulans	Wandering Albatross	Endangered	Not Sensitive	Endangered	JAMBA
Animalia	Aves	Egretta sacra	Eastern Reef Egret	Not Listed	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Endangered Population, Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Erythrotriorchis radiatus	Red Goshawk	Critically Endangered	Category 2	Vulnerable	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Gelochelidon nilotica	Gull-billed Tern	Not Listed	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus fuliginosus	Sooty Oystercatcher	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limicola falcinellus	Broad-billed Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Manorina melanotis	Black-eared Miner	Critically Endangered	Not Sensitive	Endangered	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Merops ornatus	Rainbow Bee-eater	Not Listed	Not Sensitive	Not Listed	JAMBA

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Neophema splendida	Scarlet-chested Parrot	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Nettapus coromandelianus	Cotton Pygmy-Goose	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Listed	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pezoporus wallicus wallicus	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Phaethon lepturus	White-tailed Tropicbird	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Phaethon rubricauda	Red-tailed Tropicbird	Vulnerable	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Philomachus pugnax	Ruff	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Plegadis falcinellus	Glossy Ibis	Not Listed	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Polytelis anthopeplus monarchoides	Regent Parrot (eastern subspecies)	Endangered	Category 3	Vulnerable	
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Pterodroma leucoptera leucoptera	Gould's Petrel	Vulnerable	Not Sensitive	Endangered	
Animalia	Aves	Pterodroma solandri	Providence Petrel	Vulnerable	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus superbus	Superb Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Rostratula australis	Australian Painted Snipe	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stercorarius pomarinus	Pomarine Jaeger	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Sternula albifrons	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Sula dactylatra	Masked Booby	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Thalassarche chrysostoma	Grey-headed Albatross	Not Listed	Not Sensitive	Endangered	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Thalassarche melanophris	Black-browed Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Thinornis rubricollis	Hooded Plover	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa brevipes	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa incana	Wandering Tattler	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Xenus cinereus	Terek Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Insecta	Petalura gigantea	Giant Dragonfly	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	Arctocephalus forsteri	New Zealand Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Arctocephalus pusillus doriferus	Australian Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Dasyurus viverrinus	Eastern Quoll	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Eubalaena australis	Southern Right Whale	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Macrotis lagotis	Bilby	Presumed Extinct	Not Sensitive	Vulnerable	
Animalia	Mammalia	Megaptera novaeangliae	Humpback Whale	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Perameles nasuta	Long-nosed Bandicoot	Endangered Population	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Antaresia stimsoni	Stimson's Python	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Dermochelys coriacea	Leatherback Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Diplodactylus platyurus	Eastern Fat-tailed Gecko	Endangered	Not Sensitive	Not Listed	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Varanus rosenbergi	Rosenberg's Goanna	Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Camarophyllopsis kearneyi		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe anomala var. ianthinomarginata		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe aurantipes		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe austropratensis		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe collucera		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe griseoramosa		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe lanecovensis		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe reesiae		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe rubronivea		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia gordonii		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Acacia pubescens	Downy Wattle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia terminalis subsp. terminalis	Sunshine Wattle	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Allocasuarina portuensis	Nielsen Park She-oak	Endangered	Category 3	Endangered	
Plantae	Flora	Amperea xiphoclada var. pedicellata		Presumed Extinct	Not Sensitive	Extinct	
Plantae	Flora	Caladenia tessellata	Thick Lip Spider Orchid	Endangered	Category 2	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Vulnerable	Category 3	Not Listed	
Plantae	Flora	Darwinia biflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Dichanthium setosum	Bluegrass	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Dillwynia tenuifolia		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Doryanthes palmeri	Giant Spear Lily	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Epacris purpurascens var. purpurascens		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus fracta	Broken Back Ironbark	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus pulverulenta	Silver-leafed Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Genoplesium baueri	Bauer's Midge Orchid	Endangered	Category 2	Endangered	
Plantae	Flora	Grevillea beadleana	Beadle's Grevillea	Endangered	Category 3	Endangered	
Plantae	Flora	Hibbertia puberula		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Hibbertia spanantha	Julian's Hibbertia	Critically Endangered	Category 2	Critically Endangered	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Not Listed	Not Sensitive	Extinct	
Plantae	Flora	Leptospermum deanei		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Pimelea curviflora var. curviflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Pomaderris prunifolia	Plum-leaf Pomaderris	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Prostanthera marifolia	Seaforth Mintbush	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Critically Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Senna acclinis	Rainforest Cassia	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Tetratheca glandulosa		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Tetratheca juncea	Black-eyed Susan	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Thesium australe	Austral Toadflax	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Wahlenbergia multicaulis	Tadgell's Bluebell	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Wilsonia backhousei	Narrow-leafed Wilsonia	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Zannichellia palustris		Endangered	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.
NSW BioNet: © State of NSW and Office of Environment and Heritage
Data obtained 28/11/2019

Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise match	Georeferenced to the site location / premise or part of site
General area or suburb match	Georeferenced with the confidence of the general/approximate area
Road match	Georeferenced to the road or rail
Road intersection	Georeferenced to the road intersection
Feature is a buffered point	Feature is a buffered point
Land adjacent to geocoded site	Land adjacent to Georeferenced Site
Network of features	Georeferenced to a network of features

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Appendix E - Site Photographs

Photo 1 – Storage rooms inside the building (18/12/19).

Photo 2 – Fibro panels with cement sheeting roof (possible asbestos containing) (18/12/19).

Photo 3 – Potential lead paint wall along the eastern side of the site and eastern carpark (18/12/19).

Photo 4 – Storage of building material in the eastern storage warehouse (18/12/19).

Photo 5 – Concrete expansion joints and cracks onsite (18/12/19).

Photo 6 – Western carpark (16/12/19).

Photo 7 – Loading bays, use of site for storage units located within the northern portion of the site (16/12/19).

Appendix F - Historical Property Titles Search

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Report

LRS NSW **Sydney**

Address: - 40 to 76 William Street, Leichhardt

Description: - Lot 2 D.P. 789576

As regards the part numbered (1) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
21.08.1914 (1914 to 1952)	John Heine & Son Limited	Vol 1548 Fol 209
20.03.1952 (1952 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd	Vol 1548 Fol 209 Now Vol 6566 Fol 149
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited	Vol 6566 Fol 149
14.04.1989 (1989 to 1989)	Chadcott Pty Limited	Vol 6566 Fol 149 Now 2/789576

Leases, excluding premises: -

- 24.11.1926 to Cyclops Limited, of part of the land in Volume 1548 Folio 209 – expired 22.07.1952
- 04.06.1965 to Sydney County Council, of substation, does not appear to affect – expired 15.02.1988

As regards the part numbered (2) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
14.09.1905 (1905 to 1943)	Carl Ludwig Lindahl (Seaman)	Vol 578 Fol 119
06.01.1943 (1943 to 1945)	Carl Ludwig Lindahl (Engineer) (Transmission Application not investigated)	Vol 578 Fol 119
17.05.1945 (1945 to 1962)	May Edith McGraw (Divorced Petitioner)	Vol 578 Fol 119
06.09.1962 (1962 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd	Vol 578 Fol 119
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited	Vol 578 Fol 119 Now Vol 15538 Fol 216
14.04.1989 (1989 to 1989)	Chadcott Pty Limited	Vol 15538 Fol 216 Now 2/789576

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards the part numbered (3) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
26.07.1905 (1905 to 1943)	Carl Ludwig Lindahl (Seaman)	Vol 395 Fol 54
06.01.1943 (1943 to 1943)	Carl Ludwig Lindahl (Engineer) (Transmission Application not investigated)	Vol 395 Fol 54
02.07.1943 (1943 to 1952)	William Hampstead (Labourer) (or William Leslie Hampstead) Mabel Hampstead (Married Woman)	Vol 395 Fol 54
18.03.1952 (1952 to 1962)	Mabel Hampstead (Widow)	Vol 395 Fol 54
14.12.1962 (1962 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd	Vol 395 Fol 54 Now Vol 9383 Fol 141
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited	Vol 9383 Fol 141
14.04.1989 (1989 to 1989)	Chadcott Pty Limited	Vol 9383 Fol 141 Now 2/789576

As regards the part numbered (4) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
17.01.1914 (1914 to 1928)	Sarah Lindahl (Married Woman)	Vol 2437 Fol 192
08.01.1928 (1928 to 1928)	Carl Ludwig Lindahl (Seaman) (Transmission Application not investigated)	Vol 2437 Fol 192
13.03.1928 (1928 to 1950)	Carl Ludwig Lindahl (Engineer) (Transmission Application not investigated)	Vol 2437 Fol 192
31.03.1950 91950 to 1953)	Mabel Hampstead (Widow)	Vol 2437 Fol 192
11.02.1953 (1953 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd	Vol 2437 Fol 192 Now Vol 15441 Fol 109
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited	Vol 15441 Fol 109
14.04.1989 (1989 to 1989)	Chadcott Pty Limited	Vol 15441 Fol 109 Now 2/789576

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards the part numbered (5) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	**Registered Proprietor(s) & Occupations where available**	**Reference to Title at Acquisition and sale**
16.12.1921 (1921 to 1941)	Blanche Ellison (Married Woman)	Vol 431 Fol 99
23.10.1941 (1941 to 1952)	Peter Oscar Ellison (Retired Master Mariner) (Transmission Application not investigated)	Vol 431 Fol 99
07.06.1952 (1952 to 1962)	Violet O'Neill (Married Woman)	Vol 431 Fol 99
13.02.1962 (1962 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd	Vol 431 Fol 99
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited	Vol 431 Fol 99 Now Vol 15521 Fol 68
14.04.1989 (1989 to 1989)	Chadcott Pty Limited	Vol 15521 Fol 68 Now 2/789576

As regards the part numbered (6) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	**Registered Proprietor(s) & Occupations where available**	**Reference to Title at Acquisition and sale**
30.10.1908 (1908 to 1937)	Mary Ann Quinsey (Spinster) Now Mary Ann Scully (Married Woman)	Vol 602 Fol 117
27.07.1937 (1937 to 1951)	Peter Scully (Laborer)	Vol 602 Fol 117
23.05.1951 (1951 to 1987)	Cyclops & Lines Bros. (Aust.) Limited Now Raleigh Industries (Aust.) Ltd	Vol 602 Fol 117 Now Vol 15441 Fol 110
06.10.1987 (1987 to 1989)	Goodman Hardie Pty Limited	Vol 15441 Fol 110
14.04.1989 (1989 to 1989)	Chadcott Pty Limited	Vol 15441 Fol 110 Now 2/789576

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Continued as regards the whole of the subject land

Date of Acquisition and term held	**Registered Proprietor(s) & Occupations where available**	**Reference to Title at Acquisition and sale**
14.04.1989 (1989 to 2009)	Kate Lewy	2/789576
23.03.2009 (2009 to 2013)	Ronny Leopold Lewy Dennis Lewy Garry Lewy	2/789576
15.03.2013 (2013 to date)	# Dennis Lewy # Garry Lewy # Monica Anne-Marie Lewy	2/789576

# Denotes current registered proprietors

Leases, excluding premises, continued: -

- Various leases were found from 25.05.1993 that have since expired or have been surrendered, not investigated.

Easements: -

- 20.03.1952 (F 666500) Easement for Drainage 4 feet wide.
- 19.06.1989 (D.P. 789576) Right of Carriageway 5.5 & 8.69 wide
- 24.08.1989 (Y 514880) Cross Easements

Yours Sincerely,
Mark Groll
6 January 2020

Cadastral Records Enquiry Report : Lot 2 DP 789576

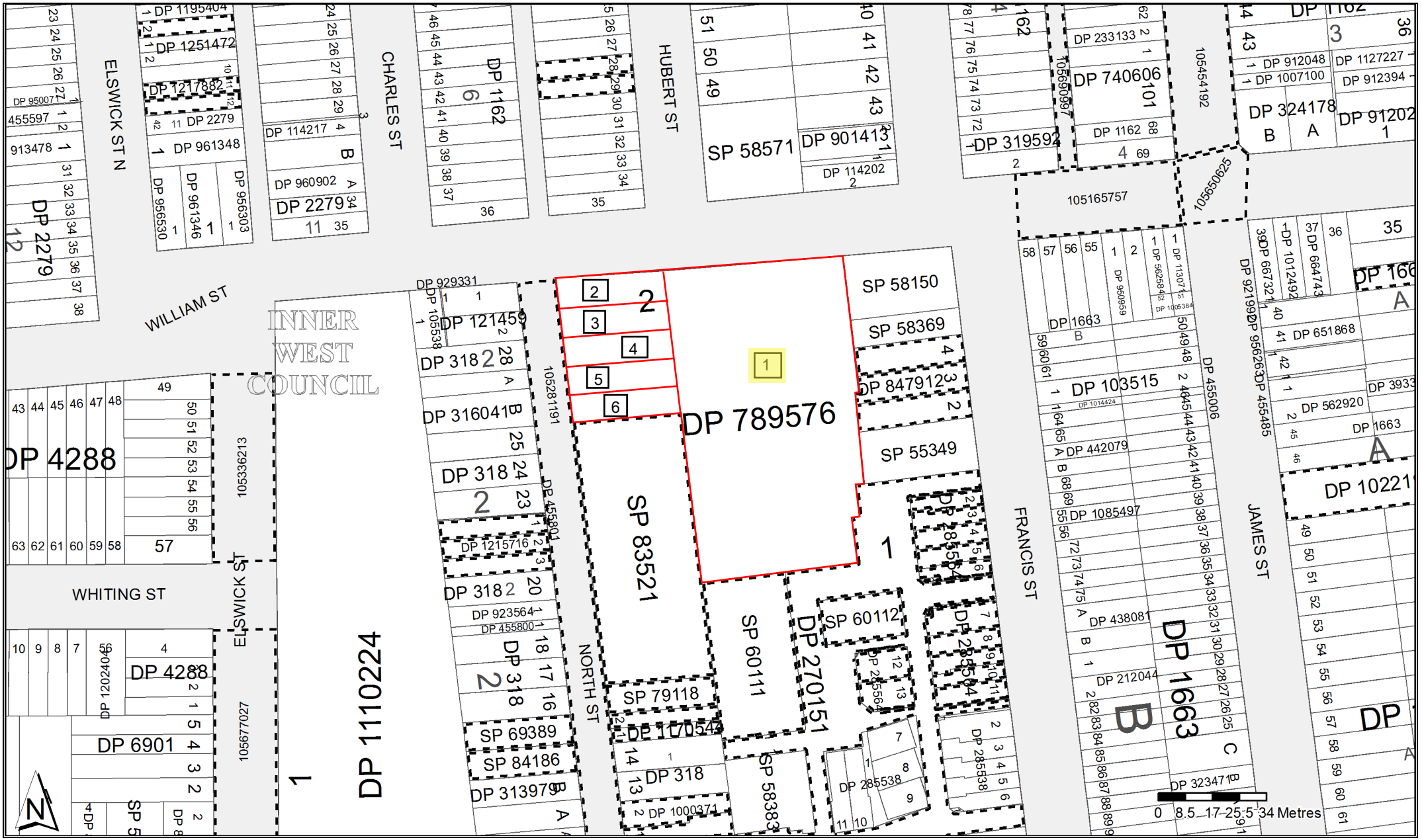
Ref : leichhardt 40-76 William St

Locality : LEICHHARDT

Parish : PETERSHAM

LGA : INNER WEST

County : CUMBERLAND



Copyright © Crown in right of New South Wales, 2017

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

InfoTrack
Req:R440390 /Doc:DP 0789576 P /Rev:27-Aug-1992 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:30 /Seq:1 of 1
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

PLAN FORM 2

Plan Drawing only to appear in this space

*OFFICE USE ONLY

DP 789576

SHEET 1 OF 2 SHEETS

SIGNATURE AND SEALS ONLY.

Crown Lands Office Approval

PLAN APPROVED ..... Authorised Officer

Land District .....

Paper No. .....

Field Book ..... pages .....

Council Clerk's Certificate

I hereby certify that —

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 340 of the † Metropolitan Water, Sewerage and Drainage Act, 1924, as amended, † Hunter District Water, Sewerage, and Drainage Act, 1938, as amended

have been complied with by the applicant in relation to the proposed ..... SUBDIVISION .....

(Insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. ..... 5589/4 .....

Date ..... 14.4.89 .....

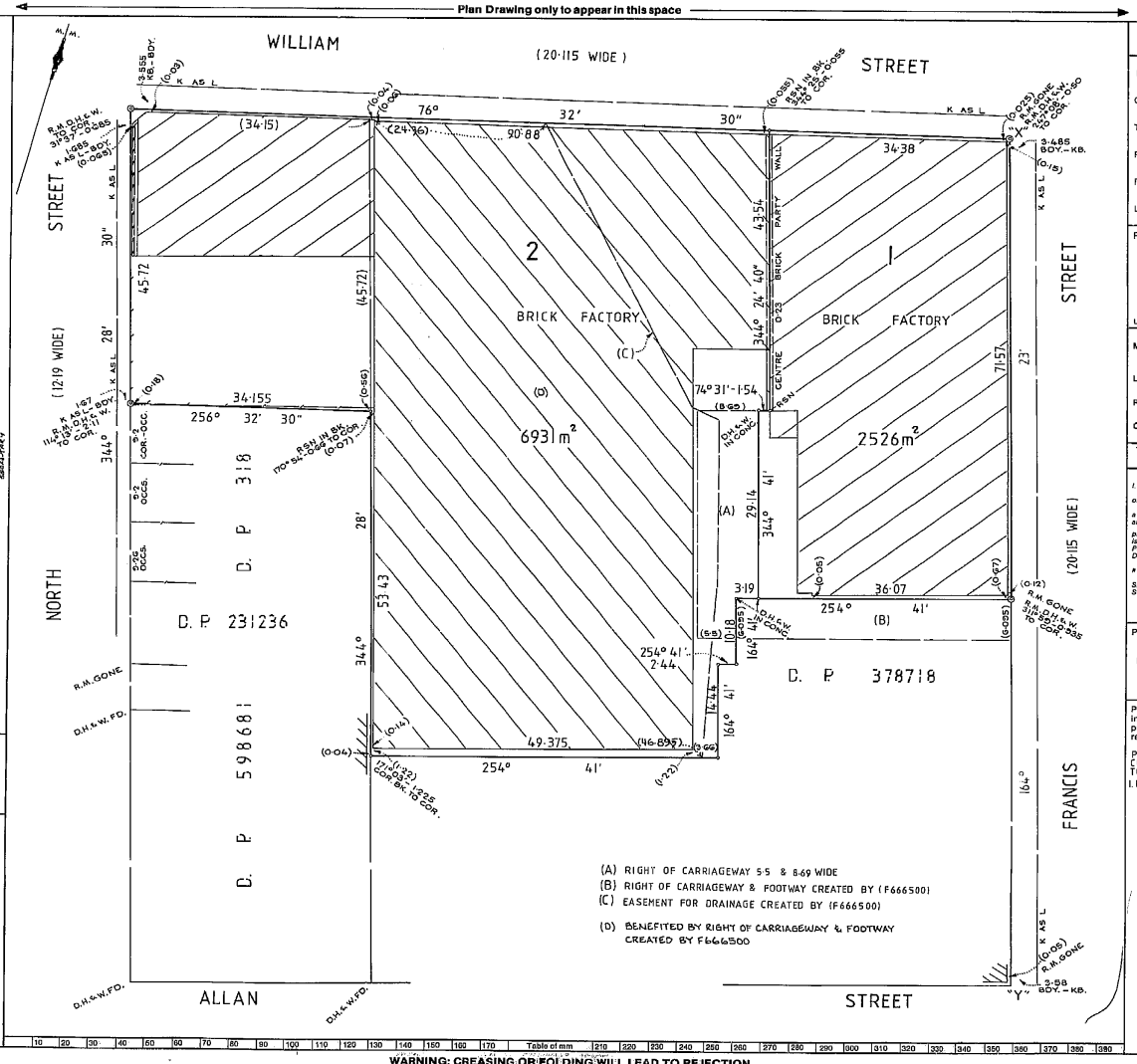
(Signature) ..... Council Clerk

Council File No. ..... P.A. 244/88 .....

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board.

† Delete if inapplicable.

SURVEYOR'S REFERENCE: 36-788



WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 19 June, 1989.

Registered: MB 19.6.1989

C.A.: No 5589/4 OF 14.4.1989

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: 0094S-721

Last Plan: DP 378718 & DP 318

PLAN OF SUBDIVISION OF LOT A D.P 378718 & LOTS 26-30 SEC.1 D.P 318

Lengths are in metres. Reduction Ratio 1: 400

Mun./Shire/City: LEICHHARDT

Locality: LEICHHARDT

Parish: PETERSHAM

County: CUMBERLAND

This is sheet 1 of my plan in ..... sheets. (Delete if inapplicable)

I, DENNY LINKER

of DENNY LINKER & CO. EDGECLIFF 2027

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made in accordance with the Survey Practice Regulations, 1933 and any special requirements of the Department of Lands, and was completed on

the 31/3/89

Signature ..... Surveyor registered under Surveyors Act, 1929, as amended. Datum Line of Azimuth ..... Bearing adopted from date of survey.

Plans used in preparation of survey/compilation.

D.P 318, D.P 231236, D.P 378718, D.P 598681

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

PURSUANT TO SEC 88B OF THE CONVEYANCING ACT 1919 IT IS INTENDED TO CREATE:

1. RIGHT OF CARRIAGEWAY 5.5 & 8.69 WIDE.

Req:R440478 /Doc:CT 15538-216 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:37 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

15538216

Register

CERTIFICATE OF TITLE

NEW SOUTH WALES

ROPERTY ACT, 1900

Vol. 15538 Fol. 216

CANCELLED

First Title Old System

Prior Title Vol. 578 Fol.119

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the recordings appearing in the Second Schedule and to the provisions of the Real Property Act, 1900.

Registrar General.

(Page 1) Vol. 15538 Fol. 216

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

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

LAND REFERRED TO

Lot 30 of Section 1 in DP318 at Leichhardt in the Municipality of Leichhardt Parish of Petersham County of Cumberland.

Title Diagram: DP318

FIRST SCHEDULE

~~GOODMAN HA[illegible] PTY. LIMITED.~~ X35125

SECOND SCHEDULE

1. Reservations and conditions in the Crown Grant.
2. X35126 Lease to Bonds Coats Patons Limited of premises being building Nos.7 and 8, 24 William Street, Leichhardt together with rights. Expires 30-6-1990. Option of renewal 3 years.
3. ~~X63255 Mortgage to Australia and New Zealand Banking Group Limited~~ Discharged Y100579
4. ~~X223830 Mortgage to Esanda Finance Corporation Limited~~ Discharged Y100580
5. ~~X526434 Caveat by Chadcott Pty Limited~~ Withdrawn Y214456

LT 2/64

Vol 15538 Fol 216

L.O. 55

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR

Registrar General

Chadcott Pty. Limited by Transfer Y100581. Registered 14-4-1989.

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
~~X989074 Caveat by Esanda Finance Corporation Limited. Registered 14-4-1989~~		Y240071
X697849 Lease to Derby Leisure Products Pty. Limited of premises being areas 4 and 5 of 24 William Street Leichhardt together with and reserving rights. Expires 28-2-1991. Option of renewal 3 years. Registered 14-4-1989.		
X697850 Lease to Bonds Industries Limited of premises being area 6, excluding the front office area on 1st floor and stairwell leading to 1st floor, 24 William Street Leichhardt, together with and reserving rights. Expires 30-6-1990. Option of renewal 3 years. Registered 14-4-1989		
Y100582 Mortgage to Australia and New Zealand Banking Group Limited. Registered 14-4-1989.		
Y240072 Mortgage to Esanda Finance Corporation Limited. Registered 14-4-1989		

LP 189576 Registered 19-6-89

This folio is cancelled as to whole/~~part~~ upon creation of computer folios for lots 1 - 2 in the abovementioned plan.

NOTATIONS AND UNREGISTERED DEALINGS

DP 789576

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

© Office of the Registrar-General /Src:INFOTRACK /Ref:lechhardt 40-76 William St
Req:R440478 /Doc:CT 15538-216 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:37 /Seq:2 of 2

Req:R440529 /Doc:CT 09383-141 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:40 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

C.

CERTIFICATE OF TITLE

NEW SOUTH WALES — PROPERTY ACT, 1900, as amended.

(For Grant and title reference prior to first edition see Deposited Plan)

9383 Fol. 141

(Page 1) Vol.

Vol. 9383 Fol. 141

1st Edition issued 28-2-1963

MA J240606

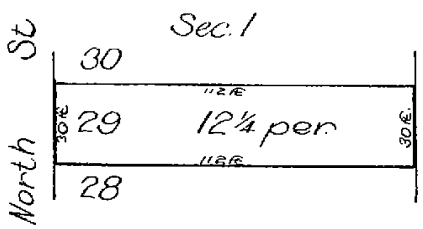
CANCELLED

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.

Witness J. Willis.

Registrar-General.

PLAN SHOWING LOCATION OF LAND



J240606 Refd

Scale: 50 Feet to one inch

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 29 Section 1 Deposited Plan 318, Municipality Leichhardt, Parish Petersham and County Cumberland.

Registrar General.

FIRST SCHEDULE (continued overleaf)

~~CYCLOPS & LINES BROS (AUST.) LIMITED.~~

Registrar General.

GRY

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant(s) referred to in the said Deposited Plan.

Registrar General.

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

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

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

Req:R440529 /Doc:CT 09383-141 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:40 /Seq:2 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

70939 1.62 ST 1609 V. C. N. BLIGHT, GOVERNMENT PRINTER

Vol. 9383 Fol. 141

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
~~The name of the registered proprietor is Redleigh Investments (Aust.) Ltd~~ ~~Goodman Hardie Pty Limited~~ by Transfer X35125. Registered 6-10-1987					
Chadcott Pty Limited by Transfer Y100581. Registered 14-4-1989.					

DP/SP 789516 registered 19-6-89
This folio is cancelled as to whole/~~part~~ upon creation of computer folios for lots 1 - 2. in the abovementioned plan.

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
~~Mortgage~~	~~X223982~~	~~26.9.1988~~	~~to Bank of New South Wales~~	~~1.11.1988~~		Discharged	P512351	
L & X35126 Lease to Bonds Coats Patons Limited premises being Building No 7 and Building No 8 24 William Street, ~~Leichhardt~~ Leichhardt together with rights Expires 30-6-1990 with an option of renewal for 3 years Registered 6-10-1987								
~~X63255 Mortgage to Australia and New Zealand Banking Group Limited Registered 6-10-1987.~~						Discharged	Y100579	
~~X86145 Mortgage to Brochead Pty Limited Registered 6-10-1987.~~						Discharged	X223829	
~~X223830 Mortgage to Esanda Finance Corporation Limited. Registered~~				15.2.1988		Discharged	Y100580	
~~X526434 Caveat by Chadcott Pty Limited. Registered 3.5.1988~~						Withdrawn	Y214456	
X989074 Caveat by Esanda Finance Corporation Limited. Registered 14-4-1989.						Withdrawn	Y240071	
L X697849 Lease to Reiby Leisure Products Pty Limited of premises being areas 4 and 5 of 24 William Street Leichhardt together with and reserving rights Expires 28-2-1991 Option of renewal 3 years Registered 14-4-1989								
L X697850 Lease to Bonds Industries Limited of premises being area 6, excluding the front office area on 1st floor and stairwell leading to 1st floor, of 24 William Street Leichhardt together with and reserving rights. Expires 30-6-1990. Option of renewal 3 years. Registered 14-4-1989.								
Y100582 Mortgage to Australia and New Zealand Banking Group Limited. Registered 14-4-1989.								
Y240072 Mortgage to Esanda Finance Corporation Limited. Registered 14-4-1989.								
M								

(Page 2 of 2 pages)

FORM No. 183A

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

Req:R440469 /Doc:CT 15441-109 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:37 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

CERTIFICATE OF TITLE

NEW SOUTH WALES — PROPERTY ACT, 1900

15441109

First Title Old System

Prior Title Vol. 2437 Fol. 192

Vol. 15441 Fol. 109 CANCELLED 6 5 1986

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the recordings appearing in the Second Schedule and to the provisions of the Real Property Act, 1900.

Registrar General.

Lot 28 of Section 1 in DP318 at Leichhardt in the Municipality of Leichhardt Paris of Petersham County of Cumberland.

Title Diagram: DP318

FIRST SCHEDULE

~~RALEIGH INDUSTRIES (AUST.) LTD.~~ ~~F808626~~

SECOND SCHEDULE

1. Reservations and conditions in the Crown grant.

(Page 1) Vol. 15441 Fol. 109

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

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

LT 2/64

40828-4036

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR

Registrar General

~~Goodman Hardie Pty Limited by Transfer X35125 Registered 6-10-1987.~~

~~Chd~~ Chadcott Pty. Limited by Transfer Y100581 Registered 14-4-1989

DP/SP 789576 : Registered 19-6-59
This folio is cancelled as to whole/~~part~~ upon creation of computer folios for lots 1 – 2 in the abovementioned plan.

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
X35126 Lease to Bonds Coats Patons Limited premises being Building No 7 and Building No 8 24 Williams Street, Leichhardt. together with rights Expires ~~6-10-19~~ 30-6-1990 with an option of renewal for 3 years Registered 6-10-1987.		
~~X63255 Mortgage to Australia and New Zealand Banking Group Limited Registered 6-10-1987.~~		Y100579
~~X26145 Mortgage to Brookhead Pty Limited Registered 6-10-1987~~		X223829
~~X 223830 Mortgage to Esanda Finance Corporation Limited Registered 15-2-1968~~		Y100580
~~X 526434 Caveat by Chadcott Pty Limited. Registered 3.5.1988~~		Y214456
~~X989074 Caveat by Esanda Finance Corporation Limited. Registered 14-4-1989~~		Y240071
X697849 Lease to Derby Products Pty Limited of premises being areas 4 and 5 of 24 William Street Leichhardt together with and reserving rights. Expires 25-2-1991. Option of renewal 3 years. Registered 14-4-1989		
X697850 Lease to Bonds Industries Limited of premises being area 6 excluding the front office area on 1st floor and stairwell leading to 1st floor, of 24 William St Leichhardt together with and reserving rights. Expires 30-6-1990. Option of renewal 3 years Registered 14-4-1989.		
Y100582 Mortgage to Australia and New Zealand Banking Group Limited. Registered 14-4-1989.		
Y240072 Mortgage to Esanda Finance Corporation Limited. Registered 14-4-1989		

NOTATIONS AND UNREGISTERED DEALINGS

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

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Req:R440469 /Doc:CT 15441-109 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:37 /Seq:2 of 2

Req:R440475 /Doc:CT 15521-068 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:37 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

15521068

CERTIFICATE OF TITLE

PROPERTY ACT, 1900

NEW SOUTH WALES

Vol. 15521 Fol. 68
EDITION 21 3 1988

First Title Old System

Prior Title Vol. 431 Fol.99

CANCELLED W

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the recordings appearing in the Second Schedule and to the provisions of the Real Property Act, 1900.

Registrar General.

(Page 1) Vol. 15521 Fol. 68

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

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

LAND REFERRED TO

Lot 27 of Section 1 in DP318 at Leichhardt in the Municipality of Leichhardt Parish of Petersham County of Cumberland.

Title Diagram: DP318

FIRST SCHEDULE

~~GUSDMAN HARDIE PTY. LIMITED.~~

X35125

SECOND SCHEDULE

1. Reservations and conditions in the Crown Grant.
2. X35126 Lease to Bonds Coats Patons Limited of premises being building No.7 and Building No.8, 24 William Street, Leichhardt together with rights. Expires 30-6-1990. Option of renewal 3 years
3. ~~X63255 Mortgage to Australia and New Zealand Banking Group Limited.~~ Discharged Y100579
4. ~~X223830 Mortgage to Esanda Finance Corporation Limited.~~ Discharged Y106550

LT 2/64

Req:R440475 /Doc:CT 15521-068 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:37 /Seq:2 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

Vol 15521 Fol 68

L.O. 55

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR — Registrar General

Chadcott Pty Limited by Transfer Y100581. Registered 14-4-1989.

DP/SP 789576 Registered 19-6-89
This folio is cancelled as to whole/~~part~~ upon creation of computer folios for lots 1 - 2 in the abovementioned plan.

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
~~X526434 Caveat by Chadcott Pty Limited. Registered 3-5-1988~~		Y214456
~~Y989074 Caveat by Esanda Finance Corporation Limited. Registered 14-4-1989~~		Y240071
X697849 Lease to Derby Leisure Products Pty. Limited of premises being areas 4 + 5 of 24 William Street Leichhardt together with and reserving rights. Expires 28-2-1991. Option of renewal 3 years Registered 14-4-1989.		
X697850 Lease to Bonds Industries Limited of premises being area 6, excluding the front office area on 1st floor and stairwell leading to 1st floor, of 24 William Street Leichhardt, together with and reserving rights. Expires 30-6-1990. Option of renewal 3 years Registered 14-4-1989.		
Y100582 Mortgage to Australia and New Zealand Banking Group Limited. Registered 14-4-1989.		
Y240072 Mortgage to Esanda Finance Corporation. Registered 14-4-1989.		

NOTATIONS AND UNREGISTERED DEALINGS

X526434 Y989074 Y100582 Y240072 X697849 X697850 DP 789576R

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

Req:R440500 /Doc:CT 15441-110 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:38 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

CERTIFICATE OF TITLE

PROPERTY ACT, 1900

NEW SOUTH WALES

First Title Old System

Prior Title Vol. 602 Fol. 117

Vol. 15441 Fol. 110

CANCELLED W

EDITION 6 ISSUED 5 1986

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the recordings appearing in the Second Schedule and to the provisions of the Real Property Act, 1900.

Registrar General.

(Page 1) Vol. 15441 Fol. 110

LAND REFERRED TO

Lot 26 of Section 1 in DP318 at Leichhardt in the Municipality of Leichhardt Parish of Petersham County of Cumberland.

Title Diagram: DP318

FIRST SCHEDULE

~~RALEIGH INDUSTRIES (AUST.) LTD.~~ ~~F484692~~

SECOND SCHEDULE

1. Reservations and conditions in the Crown grant.

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

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

40828—4038

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR

Registrar General

~~Goodman Hardie Pty Limited by Transfer X35125. Registered 6-10-1987.~~

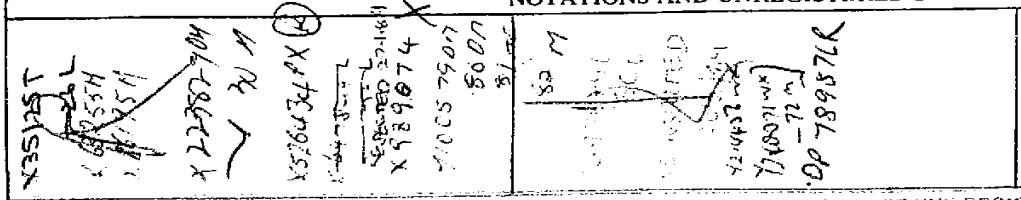
Chadcott Pty Limited by Transfer Y100581 Registered 14-4-1989.

DP/SP 759576 Registered 19-6-89
This folio is cancelled as to whole/~~part~~ upon creation of computer folios for lots 1 – 2 in the ~~above~~mentioned plan.

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
X35126 Lease to Bonds Coats Patons Limited premises being Building No 7 and Building No 8 24 William Street, Leichhardt together with rights. Expires 30-6-1990 with an option of renewal for 3 years. Registered 6-10-1987.		
~~X63256 Mortgage to Australia and New Zealand Banking Group Limited. Registered 6-10-1987.~~		Y100579
~~X86195 Mortgage to Bucehead Pty. Limited. Registered 6-10-1987.~~		X223829
~~X223830 Mortgage to Esanda Finance Corporation Limited Registered 19-6-1989~~		Y100580
~~X526432 Caveat by Chadcott Pty Limited. Registered 3.5.1988~~		Y214456
~~X989074 Caveat by Esanda Finance Corporation Limited Registered 14-4-1989.~~		Y240071
X697849 Lease to Derby Leisure Products Pty Limited of premises being areas 4 + 5, 24 William Street Leichhardt together with and reserving rights. Expires 28-2-1991. Option of renewal 3 years. Registered 14-4-1989.		
X697850 Lease to Bonds Industries Limited of premises being area 6 excluding the front office area on 1st floor and stairwell leading to 1st floor, of 24 William Street Leichhardt together with and reserving rights. Expires 30-6-1990. Option of renewal 3 years Registered 14-4-1989.		
Y100582 Mortgage to Australia and New Zealand Banking Group Limited. Registered 14-4-1989.		
Y240072 Mortgage to Esanda Finance Corporation Limited. Registered 14-4-1989.		

NOTATIONS AND UNREGISTERED DEALINGS



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

Req:R440500 /Doc:CT 15441-110 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:38 /Seq:2 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
6/1/2020 11:33AM

FOLIO: 2/789576

First Title(s): OLD SYSTEM
Prior Title(s): VOL 6566 FOL 149 VOL 9383 FOL 141
VOL 15441 FOLS 109-110 VOL 15521 FOL 68
VOL 15538 FOL 216

Recorded	Number	Type of Instrument	C.T. Issue
21/6/1989	DP789576	DEPOSITED PLAN	FOLIO CREATED EDITION 1
24/8/1989	Y514878	DISCHARGE OF MORTGAGE	
24/8/1989	Y514879	DISCHARGE OF MORTGAGE	
24/8/1989	Y514880	TRANSFER	
24/8/1989	Y514881	MORTGAGE	EDITION 2
25/5/1993	I360227	LEASE	EDITION 3
26/10/1995	O638654	LEASE	EDITION 4
8/3/1996	2002411	VARIATION OF MORTGAGE	EDITION 5
8/8/1996	2364875	LEASE	EDITION 6
16/4/1998	3919892	CHANGE OF NAME	
16/4/1998	3919980	VARIATION OF MORTGAGE	EDITION 7
14/4/1999	5749656	LEASE	EDITION 8
2/4/2001	7513591	DISCHARGE OF MORTGAGE	
2/4/2001	7513592	MORTGAGE	EDITION 9
25/3/2002	8456470	LEASE	
25/3/2002	8456471	LEASE	EDITION 10
8/9/2004	AA939262	CHANGE OF NAME	
17/3/2008	AD831826	DEPARTMENTAL DEALING	
23/3/2009	AE549199	DISCHARGE OF MORTGAGE	
23/3/2009	AE549200	TRANSMISSION APPLICATION	
23/3/2009	AE549201	MORTGAGE	EDITION 11
13/5/2010	AF88056	REJECTED - LEASE	
21/5/2010	AF491599	LEASE	EDITION 12

END OF PAGE 1 - CONTINUED OVER

Recorded	Number	Type of Instrument	C.T. Issue
17/2/2011	AG34015	MORTGAGE OF LEASE	
15/3/2013	AH611747	TRANSMISSION APPLICATION (DEVISEE,BENEFICIARY,NEXT OF KIN)	EDITION 13
16/10/2013	AI90626	DISCHARGE OF MORTGAGE	
18/1/2014	AI311099	VARIATION OF LEASE	EDITION 14
1/9/2018	AN678862	DEPARTMENTAL DEALING	
8/9/2018	AN695391	DEPARTMENTAL DEALING	EDITION 15 CORD ISSUED

*** END OF SEARCH ***

InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Req:R440446 /Doc:DL Y514880 /Rev:19-Aug-1997 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:33 /Seq:1 of 2
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NP 13 STAMP DUTY [redacted]

Y514880

TRANSFER

REAL PROPERTY ACT, 1900

T 3 3 of 4 X $ 44 R 3/4

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
DESCRIPTION OF LAND Note (a) FOLIO IDENTIFIER 2/789576	WHOLE	LEICHHARDT D

TRANSFEROR Note (b)

CHADCOTT PTY. LIMITED

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 3,350,000 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

KATE LEWY C/- 17 May Street, Dulwich Hill, Widow

OFFICE USE ONLY

OVER

TENANCY Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. Lease - X35126 2. Lease - X697849 3. Lease - X697850

DATE 16th July 1989

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)

Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL of CHADCOTT PTY. LIMITED was

Signature of Witness

hereunto affixed by authority of the Board

Name of Witness (BLOCK LETTERS)

of Directors in the presence of:

Address and occupation of Witness

CHADCOTT PTY. LIMITED Common Seal

Director

Secretary

Signature of Transferor

Signed in my presence by the transferee who is personally known to me

Note (g)

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Signature of Transferee

SOLICITOR

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY
NORTON SMITH & CO.
SOLICITORS
20 MARTIN PLACE, SYDNEY
D.X. 119. PHONE: 232-8833
Ref:
Delivery Box Number 646W

LOCATION OF DOCUMENTS

GT	OTHER	
		Herewith.
		In L.T.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19
EBIG	EFH	24 AUG 1989
Signed	Extra Fee	

Secondary Directions	OVER	
Delivery Directions	OVER	

Req:R440446 /Doc:DL Y514880 /Rev:19-Aug-1997 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:33 /Seq:2 of 2
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RP 88A
1988

OFFICE USE ONLY

REGISTRATION DIRECTION ANNEXURE

Use this side only for First and Second Schedule directions

DO NOT USE BOTH SIDES OF THE FORM

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME
2/789576	S	KATE LEWY

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTATION TYPE	(G) DEALING NUMBER	(H) DETAILS
1/789576 2/789576	OFF	NB		
1/789576 2/789576	ON	EA		Cross easements created pursuant to S. 181B Conveyancing Act, 1919 affecting the party wall shown on the boundary between Lot 1 & 2 on DP 789576.
1/789576	CT		NOCT	

Req:R440447 /Doc:DL AE549200 /Rev:24-Mar-2009 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:34 /Seq:1 of 2
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Form: 03TA
Release: 1
www.lpi.nsw.gov.au

TRANSMISSI APPLICATIO

New South Wales
Section 93 Real Property Act 1900

AE549200C

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY
06-03-2009 0005331641-001
SECTION 63(A)
DUTY $ **********10.00

(A) **LAND**

Torrens Title
Folio Identifier 2/789576

RELODGED

(B) **REGISTERED DEALING**

Number	Torrens Title

(C) LODGED BY

Delivery Box	Name, Address or DX and Telephone	CODE
985X	Shad Partners LLP123705V DX 1212 Sydney (02) 9790 7000 Reference: ~~KJR:19661~~ GS:MS:78483	TA

2 0 MAR 2009

TIME: 9:30

(D) **DECEASED REGISTERED PROPRIETOR**

KATE LEWY

(E) **APPLICANT**

RONNY LEOPOLD LEWY as to one third share, DENNIS LEWY as to one third share and GARRY LEWY as to one third share as tenants in common

(F) The applicant, being entitled as beneficiaries of the will of the deceased registered proprietor (who died on 06 Mar 2002) pursuant to probate No. 110375/02 granted on 11 Jul 2002 to Ronny Leopold Lewy, Dennis Lewy and Garry Lewy (a certified copy of which is lodged herewith) applies to be registered as proprietor of the estate or interest of the deceased registered proprietor in the abovementioned land

DATE 16 October 2008

(G) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

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

Signature of witness:

Signature of Applicant:

Name of witness: SEE ANNEXURE "A"
Address of witness:

(H) **CONSENT OF EXECUTOR, ADMINISTRATOR OR TRUSTEE**

I, ...

..... of the deceased registered proprietor, hereby consent to this application.

Signature of witness:

Signature of

Name of witness:

Address of witness:

All handwriting must be in block capitals.
Office use only—
Evidence sighted/~~sighted and returned~~: leg82

Req:R440447 /Doc:DL AE549200 /Rev:24-Mar-2009 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:34 /Seq:2 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:leichhardt 40-76 William St

ANNEXURE "A" to TRANSMISSION APPLICATION

Parties:

KATE LEWY (Deceased Registered Proprietor)

RONNY LEOPOLD LEWY, DENNIS LEWY and GARRY LEWY (Applicant)

(G)

I certify that the person signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence:

Signature of Witness: .....

Name of Witness: K. J. Rook Kenneth John Rook

Address of Witness: 264 George St Sydney
Solicitor

Certified correct for the purposes of the Real Property Act 1990 by the Applicant:

Signature of Applicant: .....

I certify that the person signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence:

Signature of Witness: .....

Name of Witness: K. J. Rook Kenneth John Rook

Address of Witness: 264 George St Sydney
Solicitor

Certified correct for the purposes of the Real Property Act 1990 by the Applicant:

Signature of Applicant: .....

I certify that the person signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence:

Signature of Witness: .....

Name of Witness: K. J. Rook Kenneth John Rook

Address of Witness: 264 George St Sydney
Solicitor

Certified correct for the purposes of the Real Property Act 1990 by the Applicant:

Signature of Applicant: .....

M12661.003/NMP

Req:R440448 /Doc:DL AH611747 /Rev:19-Mar-2013 /NSW LRS /Pgs:ALL /Prt:06-Jan-2020 11:34 /Seq:1 of 1
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Form: 03AD
Release: 2·1

TRANSMISSION APPLICATION

by a Devisee, Beneficiary or Next-of-Kin

New South Wales

Section 93 Real Property Act 1900

Leave this space clear. Affix additional

AH611747H

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the collection of the information required 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 Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 3337774 584
Duty: 50.00 Trans No: 2026391
Asst details:

(A) **TORRENS TITLE** 2/789576

(B) **REGISTERED DEALING**

NUMBER	TORRENS TITLE
AE549201A	2/789576

(C) **LODGED BY**

DOCUMENT COLLECTION BOX	NAME, ADDRESS OR DX, TELEPHONE, AND CUSTOMER ACCOUNT NUMBER IF ANY	CODE
48T	~~Bartier Perry~~ ~~Level 18, 133 Castlereagh St~~ ~~Sydney NSW 2000~~ 48T LLPN: 123819E CITYLINK REFERENCE: NXD: 124860 /BP	AD

(D) **DECEASED PROPRIETOR** Ronny Leopold Lewy

(E) **APPLICANT** Monica Anne-Marie Lewy

TENANCY: Tenants in Common in Equal Shares

(F) The applicant, being entitled as beneficiary under the will of the deceased registered proprietor (who died on 17-01-2011) pursuant to probate No. 2011/100766 granted on 6 April 2011 to Monica Anne-Marie Lewy (a certified copy of which is lodged herewith) hereby applies to be registered as proprietor of the estate or interest of the deceased registered proprietor in the abovementioned LAND and REGISTERED DEALING

DATE 18 February 2013

(G) Certified correct for the purposes of the Real Property Act 1900 on behalf of the applicant by the person whose signature appears below.

Signature:

Signatory's name: Norman Donato
Signatory's capacity: solicitor

(H) **CONSENT OF EXECUTOR, ADMINISTRATOR OR TRUSTEE**

I, _____, SELECT >>> >>> of the deceased registered proprietor, hereby consent to this application.

Signature of witness: _____ Signature of ???

Name of witness: _____

Address of witness: _____

(I) *This section is to be completed where a notice of sale is required and the relevant data has been forwarded through eNOS.*

The the applicant's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 385664 Full name: Norman Donato Signature:

* *s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

Evidence sighted and returned (office use only):

CT Prod 1089X
22·2·13

1203

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 2/789576

SEARCH DATE	TIME	EDITION NO	DATE
6/1/2020	11:30 AM	15	8/9/2018

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO.
CONTROL OF THE RIGHT TO DEAL IS HELD BY WESTPAC BANKING CORPORATION.

LAND

LOT 2 IN DEPOSITED PLAN 789576
AT LEICHHARDT
LOCAL GOVERNMENT AREA INNER WEST
PARISH OF PETERSHAM COUNTY OF CUMBERLAND
TITLE DIAGRAM DP789576

FIRST SCHEDULE

MONICA ANNE-MARIE LEWY
DENNIS LEWY
GARRY LEWY
AS TENANTS IN COMMON IN EQUAL SHARES (AD AH611747)

SECOND SCHEDULE (6 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 F666500 RIGHT OF CARRIAGEWAY AND FOOTWAY APPURTENANT TO THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BENEFITED IN THE TITLE DIAGRAM
3 EASEMENT(S) AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM CREATED BY:
F666500 -FOR DRAINAGE
DP789576 -RIGHT OF CARRIAGEWAY 5.5 AND 8.69 WIDE
4 Y514880 CROSS EASEMENTS CREATED PURSUANT TO S.181B CONVEYANCING ACT, 1919 AFFECTING THE PARTY WALL SHOWN ON THE BOUNDARY BETWEEN LOTS 1 & 2 IN DP789576
5 AE549201 MORTGAGE TO WESTPAC BANKING CORPORATION
6 AF491599 LEASE TO METRO SELF STORAGE LEICHHARDT PTY LIMITED EXPIRES: 30/4/2015. OPTION OF RENEWAL: 5 YEARS.
AI311099 VARIATION OF LEASE AF491599 EXPIRY DATE NOW 30/4/2020.

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

leichhardt 40-76 William St PRINTED ON 6/1/2020

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Received: 06/01/2020 11:30:27

Appendix G - Borehole Logs

BOREHOLE: BH1M

eiaustralia
Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	16/12/19
Position	Refer to Figure 2			Date Completed	16/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hanjin DB8	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID / Static Water Level
DT			0	0.21				-	CONCRETE; 210 mm thick.	-		BH1M
AD/T		GWNE		0.80	BH1M_0.3-0.4 ES PID=1.9ppm			-	FILL: SAND; fine to medium grained, dark grey, with fine to coarse gravels, trace slag and silt, with slight hydrocarbon odour.			Concrete; Gatic Cover
					BH1M_0.8-0.9 ES PID=23.4ppm				From 0.8 m, moderate hydrocarbon odour.	M		
					BH1M_1.4-1.5 ES PID=11.0ppm							
				1.90								Bentonite
			2		BH1M_2.0-2.2 ES PID=6.9ppm			SG	Gravelly SAND; fine to medium grained, dark grey, with fine to coarse, red-brown to pale grey sandstone gravels, with moderate hydrocarbon odour.	M		
				2.60				-	SANDSTONE; fine to medium grained, very low strength, distinctly weathered, red-brown, no odour.			
				3.20					From 3.2 m, very low to low strength, pale grey to red-brown,no odour.			
			4									uPVC 50 mm Casing
				4.67				-	SANDSTONE; fine to medium grained, pale grey to orange-brown, with ironstaining, no odour.			
NMLC	-	-		5.90					From 5.9 m, fine to medium grained, pale grey, no odour.	-	-	
			6									
												Sand
			8									uPVC 50 mm Screen
			10									
				11.23					Hole Terminated at 11.23 mBGL; Target Depth Reached.			
			12									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E24470.E02.GPJ <<DrawingFile>> 09/01/2020 16:47 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH2

eiaustralia
Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	16/12/19
Position	Refer to Figure 2			Date Completed	17/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hanjin DB8	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	-	GWNE	0					-	CONCRETE; 50 mm thick.	-	-	CONCRETE HARDSTAND
					BH2_0.3-0.4 ES PID=2.3ppm			-	FILL: Sandy GRAVEL; fine to coarse grained and angular to sub-angular, grey, with fine to coarse grained sand, no odour.	M	-	FILL
				0.80	BH2_0.9-1.0 ES PID=1.5ppm			-	FILL: Gravelly SAND; fine to coarse grained, pale grey-grey, with fine to coarse grained and angular to sub-angular gravels, no odour.	M	-	
				1.50				CI	Sandy CLAY; medium plasticity, yellow-brown, trace ironstone gravels, no odour.		S	RESIDUAL SOIL
			2	*2.00*					From 2.0 m, grading into extremely weathered material, no odour.	M (<PL)	-	
				3.50				-	SANDSTONE; fine to medium grained, very low to low strength, distinctly weathered, pale grey to red-brown,no odour.			RESIDUAL SOIL
	L-M		4	*4.20*								
NMLC	-	-						-	SANDSTONE; fine to medium grained, pale grey, trace ironstaining, no odour.	-	-	
			6									
			8									
			10	*10.00*					Hole Terminated at 10.00 mBGL; Target Depth Reached.			
			12									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH3M

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	18/12/19
Position	Refer to Figure 2			Date Completed	18/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Christie (Rig 16)	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID / Static Water Level
DT			0	0.20				-	CONCRETE; 200 mm thick.	-	-	BH3M
AD/T	-	GWNE			BH3M_0.3-0.4 ES PID=1.2ppm BH3M_0.8-0.9 ES PID=2.0ppm			-	FILL: SAND; fine to medium grained, yellow-brown, with fine to coarse grained and angular to sub-angular sandstone gravels, red-brown, no odour.			Concrete Gatic Cover
				1.20					From 1.2 m, with sandstone boulders, no odour.	D - M	-	
	L-H		2		BH3M_1.6-1.8 ES PID=3.0ppm BH3M_2.0-2.2 ES PID=1.5ppm							Bentonite
				2.90								
	M-H			3.30				-	SANDSTONE; fine to medium grained, low strength, distinctly weathered, red-brown, no odour.			
NMLC								-	SANDSTONE; fine to medium grained, pale grey to orange-brown, with ironstaining, no odour.			
			4									uPVC 50 mm Casing
			6									
	-	-		7.12					From 7.12 m, pale grey, no ironstaining.	-	-	Sand
			8									
												uPVC 50 mm Screen
			10	10.20								
									Hole Terminated at 10.20 mBGL; Target Depth Reached.			
			12									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH4M

eiaustralia
Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	18/12/19
Position	Refer to Figure 2			Date Completed	18/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	DS
Client	Ceerose Pty Ltd	Drill Rig	Christie (Rig 16)	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID / Static Water Level
DT			0.0	0.16				-	CONCRETE	-		BH4M: Gatic Cover; Concrete
AD/T	-	GWNE	0.5		BH4M_0.2-0.3 ES PID=12ppm			-	FILL: SAND; fine to medium grained, dark grey, with fine to coarse gravels, trace slag and silt, with slight hydrocarbon odour.			
			1.0		BH4M_0.8-0.9 ES PID=20.5ppm					D		Bentonite
			1.5	1.50	BH4M_1.4-1.5 ES PID=10.6ppm			SC	Clayey SAND; fine to medium grained, brown and red brown, no odour.		-	uPVC 50 mm Casing
			2.0		BH4M_2.0-2.1 ES PID=5.6ppm					W		uPVC 50 mm Screen; Sand
			2.5		BH4M_2.6-2.7 ES PID=6.0ppm							
			3.0	2.80					Hole Terminated at 2.80 mBGL; Refusal on sandstone/bedrock.			

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E24470.E02.GPJ <<DrawingFile>> 21/01/2020 10:35 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH5

eiaustralia
Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	16/12/19
Position	Refer to Figure 2			Date Completed	16/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0					-	CONCRETE	-	-	CONCRETE HARDSTAND
				0.20								
HA					BH5_0.3-0.4 ES PID=1.5ppm			-	FILL: GRAVEL; coarse grained,sub-angular to angular, dark brown, with slag, concrete fragments and bricks, no odour.	D		FILL
				0.40					Hole Terminated at 0.40 mBGL; Refusal on hard surface.			
			0.5									
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH6

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Contamination | Remediation | Geotechnical

Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	16/12/19
Position	Refer to Figure 2			Date Completed	16/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT			0.0	0.15				-	CONCRETE	-		CONCRETE HARDSTAND
HA	-	GWNE		0.20				-	FILL: SANDSTONE; slightly weathered, red, no odour.	D	-	FILL
					BH6_0.2-0.3 ES PID=0.6ppm			-	FILL: GRAVEL; coarse grained,sub-angular to angular, dark brown, with slag, concrete fragments and bricks, no odour.			
					BH6_0.4-0.5 ES PID=2.0ppm							
			0.5	0.50				SM	Silty SAND; coarse grained, orange brown, no odour.			RESIDUAL SOIL
					BH6_0.6-0.7 ES PID=1.5ppm							
				0.70					Hole Terminated at 0.70 mBGL; Target Depth Reached.			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E24470.E02.GPJ <<DrawingFile>> 09/01/2020 16:05 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH7

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	16/12/19
Position	Refer to Figure 2			Date Completed	16/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0					-	CONCRETE	-	-	CONCRETE HARDSTAND
				0.30								
HA					BH7_0.3-0.4 ES PID=0.5ppm			-	SANDSTONE; fine to medium grained,very low strength, distinctly weathered, red-brown, no odour.	D		RESIDUAL SOIL
				0.40					Hole Terminated at 0.40 mBGL; Target Depth Reached.			
			0.5									
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

EIA LIB 1.03.GLB Log IS AU BOREHOLE 3 E24470.E02.GPJ <<DrawingFile>> 09/01/2020 16:05 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: EIA 1.03 2014-07-05 Prj: EIA 1.03 2014-07-05

BOREHOLE: BH8

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	16/12/19
Position	Refer to Figure 2			Date Completed	16/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0					-	CONCRETE	-	-	CONCRETE HARDSTAND
				0.20								
HA					BH8_0.3-0.4 ES PID=0.6ppm			-	SANDSTONE; fine to medium grained,very low strength, distinctly weathered, red-brown, no odour.	D		RESIDUAL SOIL
				0.40								
			0.5						Hole Terminated at 0.40 mBGL; Target Depth Reached.			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH9M

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	17/12/19
Position	Refer to Figure 2			Date Completed	17/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hanjin DB8	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	PIEZOMETER DETAILS ID / Static Water Level
AD/T		GWNE	0					-	CONCRETE; 50 mm thick.	-	-	BH9M: Concrete; Gatic Cover
								-	FILL: SAND; fine to coarse grained, brown, with fine to medium gravels, no odour.	-	-	
				1.20				-	SANDSTONE; fine to medium grained, pale grey to orange-brown, no odour.			Bentonite
			2									
				3.65					From 3.65 m, medium to high strength, no odour.			uPVC 50 mm Casing
			4									
NMLC	-	-		5.20					From 5.2 m, high strength, fresh, pale grey, no ironstaining,	-	-	
			6									Sand
			8									uPVC 50 mm Screen
				9.70					Hole Terminated at 9.70 mBGL; Target Depth Reached.			
			10									
			12									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH9a

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	17/12/19
Position	Refer to Figure 2			Date Completed	17/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	DS
Client	Ceerose Pty Ltd	Drill Rig	Hanjin DB8	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0	0.05				-	CONCRETE	-		CONCRETE HARDSTAND
DT	-	GWNE			BH9a_0.2-0.3 ES PID=10.1ppm			-	FILL: SAND; fine to medium grained, dark grey, with fine to coarse gravels, trace silt, no odour.	D	-	FILL
AD/T			0.5		BH9a_0.5-0.7 ES PID=10.2ppm							
				0.70					Hole Terminated at 0.70 mBGL; Refusal on sandstone.			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH9b

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	17/12/19
Position	Refer to Figure 2			Date Completed	17/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	DS
Client	Ceerose Pty Ltd	Drill Rig	Hanjin DB8	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0	0.05				-	CONCRETE	-		CONCRETE HARDSTAND
								-	FILL: SAND; fine to medium grained, dark grey, with fine to coarse gravels, trace silt, no odour.	D	-	FILL
AD/T			0.5		BH9b_0.6-0.7 ES PID=5.0ppm							
				0.80					Hole Terminated at 0.80 mBGL; Refusal on sandstone.			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH10

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	17/12/19
Position	Refer to Figure 2			Date Completed	17/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0	0.20				-	CONCRETE	-		CONCRETE HARDSTAND
HA				0.40	BH10_0.3-0.4 ES PID=0.9ppm			-	FILL: SAND; fine to medium grained, pale brown, with sub-angular to angular sandstone gravels, no odour.	M	-	RESIDUAL SOIL
			0.5	0.50				-	SANDSTONE; fine to medium grained, very low strength, distinctly weathered, red to brown, no odour.	-		
									Hole Terminated at 0.50 mBGL; Target Depth Reached.			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH11

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	17/12/19
Position	Refer to Figure 2			Date Completed	17/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0					-	CONCRETE	-	-	CONCRETE HARDSTAND
				0.20								
HA					BH11_0.2-0.3 ES PID=1.2ppm			-	SANDSTONE; fine to medium grained,very low strength, distinctly weathered, red-brown, no odour.	M		RESIDUAL SOIL
				0.35								
			0.5						Hole Terminated at 0.35 mBGL; Target Depth Reached.			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH12

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	17/12/19
Position	Refer to Figure 2			Date Completed	17/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0					-	CONCRETE	-	-	CONCRETE HARDSTAND
				0.20								
HA					BH12_0.3-0.4 ES PID=2.0ppm			-	FILL: SAND; fine to medium grained, pale brown, with sub-angular to angular sandstone gravels, no odour.	D		RESIDUAL SOIL
				0.40					Hole Terminated at 0.40 mBGL; Refusal on sandstone.			
			0.5									
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH13

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	18/12/19
Position	Refer to Figure 2			Date Completed	18/12/19
Job No.	E24470.E02	Contractor	-	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Hand Auger	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	GWNE	0.0					-	CONCRETE	-	-	CONCRETE HARDSTAND
				0.20								
HA					BH13_0.3-0.4 ES PID=0.6ppm			-	SANDSTONE; fine to medium grained,very low strength, distinctly weathered, red-brown, no odour.	D		RESIDUAL SOIL
				0.40					Hole Terminated at 0.40 mBGL; Refusal on bedrock			
			0.5									
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH14

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	18/12/19
Position	Refer to Figure 2			Date Completed	18/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Christie (Rig 16)	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT			0.0	0.20				-	CONCRETE	-		CONCRETE HARDSTAND
AD/T	-	GWNE	0.5	0.70	BH14_0.4-0.5 ES PID=3.0ppm			-	FILL: Gravelly SAND; coarse grained, dark brown to black, trace slag, no odour.	D	-	FILL
			1.0	1.00	BH14_0.9-1.0 ES PID=12.1ppm			SM	Silty SAND; coarse grained, orange brown, no odour.			RESIDUAL SOIL
									From 1.0m, grey.			
			1.5	1.50	BH14_1.4-1.5 ES PID=5.6ppm				Hole Terminated at 1.50 mBGL; Target Depth Reached.			
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH15

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	18/12/19
Position	Refer to Figure 2			Date Completed	18/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Christie (Rig 16)	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT			0.0	0.20				-	CONCRETE	-		CONCRETE HARDSTAND
AD/T	-	GWNE	0.5	0.60	BH15_0.4-0.5 ES PID=3.0ppm			-	FILL: Gravelly SAND; coarse grained, dark brown to black, trace slag, no odour.	D	-	FILL
			1.0	1.00	BH15_0.9-1.0 ES PID=1.9ppm			SM	Silty SAND; coarse grained, orange brown, no odour.			RESIDUAL SOIL
			1.5						Hole Terminated at 1.00 mBGL; Target Depth Reached.			
			2.0									
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH16

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	18/12/19
Position	Refer to Figure 2			Date Completed	18/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Christie (Rig 16)	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT			0.0	0.20				-	CONCRETE	-		CONCRETE HARDSTAND
AD/T	-	GWNE	0.5	0.70	BH16_0.4-0.5 ES PID=2.0ppm			-	FILL: Gravelly SAND; coarse grained, dark brown to black, trace slag, no odour.	D	-	FILL
			1.0	1.30	BH16_1.0-1.1 ES PID=1.5ppm			SM	Silty SAND; coarse grained, orange brown, no odour.			RESIDUAL SOIL
			1.5	1.50					From 1.3m, red.			
			2.0						Hole Terminated at 1.50 mBGL; Target Depth Reached.			
			2.5									
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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BOREHOLE: BH17

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Project	Detailed Site Investigation			Sheet	1 OF 1
Location	40-76 William Street, Leichhardt NSW			Date Started	18/12/19
Position	Refer to Figure 2			Date Completed	18/12/19
Job No.	E24470.E02	Contractor	BG Drilling	Logged	SL
Client	Ceerose Pty Ltd	Drill Rig	Christie (Rig 16)	Checked	
		Inclination	-90°		

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT			0.0	0.20				-	CONCRETE	-		CONCRETE HARDSTAND
AD/T	-	GWNE	0.5		BH17_0.4-0.5 ES PID=1.5ppm			-	FILL: Gravelly SAND; coarse grained, dark brown to black, trace slag, no odour.	D	-	FILL
			1.0		BH17_1.0-1.1 ES PID=1.0ppm							
			1.5		BH17_1.4-1.5 ES PID=1.2ppm							
				1.80				SM	Silty SAND; coarse grained, orange brown, no odour.			RESIDUAL SOIL
			2.0		BH17_2.0-2.1 ES PID=2.0ppm							
			2.5		BH17_2.5-2.6 ES PID=1.6ppm							
				2.60					Hole Terminated at 2.60 mBGL; Target Depth Reached.			
			3.0									

This borehole log should be read in conjunction with EI Australia's accompanying standard notes.

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Appendix H - Field Data Sheets

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W www.eiaustralia.com.au
T 02 9516 0722

CALIBRATION CERTIFICATE FOR PHOTO IONISATION DETECTOR

Instrument: Mini RAE 3000

Serial Number: 592-906667 - EI **PID02** ☒ **OR** 592-901345 - EI **PID03** ☐

Instrument Conditions: good.

Calibration gas species: Isobutylene.

Calibration gas concentration: 100 ppm

Gas bottle number: 676450/173.

This PID has been calibrated to Isobutylene gas with the span concentration displayed as 101 ppm at 100 ppm span setting (allowable range +/-10ppm from span setting).

The PID is initially zero calibrated in fresh air.

Remaining gas in bottle: 750 psi (if reading is <250 psi, notify Equipment Manager to arrange new gas bottle order)

The above detector was calibrated in accordance with manufacturer's specifications.

Signed: [signature]

Date: 16/12/19.

Time: _____

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address: 40-76 William St, Leichhardt	Job Number: E24470
Client: Cerose	Date: 10/01/2020
Field Staff: Luiza Barbosa	Sampling Location ID BHIM
Well Location: Driveway (access through Francis St)	Round No: 1
MEDIUM ☑Groundwater ☐Surface Water	☐Stormwater ☐Other:
SAMPLING POINT INFO	BHIM-1
Well Installation Date:	Stick up / (down) (m): -0.12m (+ above ground - below ground)
Initial Well Depth (mBTOC):	Screen Interval (mBTOC):
Previous Sampling Date:	Previous SWL (mBTOC):
PID READINGS	
PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	
PRE PURGE	
Total Well Depth (mBTOC): 11.12	Well Head Condition: good
SWL (mBTOC): 2.93	Water Column (m): 8.19
PHASE SEPARATED HYDROCARBONS (PSH)	
Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	
PURGE AND SAMPLE	
Sampling Method ☑Bladder ☐Peristaltic	☐Submersible ☐Other:
Depth of Pump Inlet (mBTOC): 9.00 (approx.)	Fill Timer: 10.0
Pump Pressure Regulator (psi): 35	Discharge Timer: 5.0
Weather Conditions: sunny	Cycle: CPM4
Pump on time: 3:30	Pump off time: 4:15
WATER QUALITY PARAMETERS	
Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
3:41	1.0	3.55	23.70	353	115.1	0.33	4.98	Brown, low to medium turbidity, no odour, no sheen
3:43	1.5	3.57	23.49	346	122.2	0.38	4.83	↓
3:46	2.0	3.54	23.53	353	124.7	0.39	4.79	
3:49	2.5	3.50	23.53	355	123.6	0.46	4.82	
3:51	3.0	3.49	23.56	349	125.5	0.41	4.77	
3:54	3.5	3.49	23.37	350	125.8	0.43	4.78	
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:

SIGNATURE:

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address: 40-76 William St, Leichhardt	Job Number: E24470
Client: Cerrose	Date: 10/01/2020
Field Staff: Luiza Barbosa	Sampling Location ID BH3M-
Well Location: Metro Parking Bay for Loading & Unload	Round No: 1
MEDIUM ☒Groundwater ☐Surface Water	☐Stormwater ☐Other:
SAMPLING POINT INFO	BH3M-1
Well Installation Date:	Stick up / down (m): -0.085 m (+ above ground - below ground)
Initial Well Depth (mBTOC):	Screen Interval (mBTOC):
Previous Sampling Date:	Previous SWL (mBTOC):
PID READINGS	
PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	
PRE PURGE	
Total Well Depth (mBTOC): 9.96	Well Head Condition: good
SWL (mBTOC): 3.20	Water Column (m): 6.76
PHASE SEPARATED HYDROCARBONS (PSH)	
Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	
PURGE AND SAMPLE	
Sampling Method ☒Bladder ☐Peristaltic ☐Submersible	☐Other:
Depth of Pump Inlet (mBTOC): 7.50	Fill Timer: 10.0
Pump Pressure Regulator (psi): 35	Discharge Timer: 5.0
Weather Conditions: sunny	Cycle: CPM 4
Pump on time: 11:33	Pump off time: 11:55
WATER QUALITY PARAMETERS	
Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
11:39	0.5	3.32	21.85	638	141.1	1.27	4.46	Brown, m turbidity, no odour,
11:41	1.0	3.32	21.64	580	139.2	1.35	4.48	no sheen
11:43	1.5	3.31	21.84	552	142.4	1.26	4.42	↓
11:45	2.0	3.30	21.64	574	142.3	1.19	4.41	
11:47	2.5	3.30	21.63	575	145.0	1.18	4.41	
							sampled	
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:

Quality duplicate taken from well BH3M GW2D-1 GW2T-1

SIGNATURE:

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address: 40-76 William St, Leichhardt	Job Number: E24470
Client: Ceerose	Date: 10/01/2020
Field Staff: Luiza Barbosa	Sampling Location ID BH4M
Well Location:	Round No: 1
MEDIUM ☑Groundwater ☐Surface Water	☐Stormwater ☐Other:
SAMPLING POINT INFO	BH4M-1
Well Installation Date:	Stick up / (down) (m): -0.13 (+ above ground - below ground)
Initial Well Depth (mBTOC):	Screen Interval (mBTOC):
Previous Sampling Date:	Previous SWL (mBTOC):
PID READINGS	
PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	
PRE PURGE	
Total Well Depth (mBTOC): 2.26	Well Head Condition: good
SWL (mBTOC): 1.88	Water Column (m): 0.38
PHASE SEPARATED HYDROCARBONS (PSH)	
Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	
PURGE AND SAMPLE	
Sampling Method ☐Bladder ☐Peristaltic ☐Submersible	☑Other: bailer
Depth of Pump Inlet (mBTOC):	Fill Timer:
Pump Pressure Regulator (psi):	Discharge Timer:
Weather Conditions:	Cycle:
Pump on time:	Pump off time:
WATER QUALITY PARAMETERS	
Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
4:20	0.5	1.76	24.56	531	72.3	1.08	5.78	Black, m-h turbidity, no sheen, not sure about odour. ↓ room where well is located had very strong smell, I could not dizzel if water or air.
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:

Not enough water to use low flow. Used bailer and measured quality parameters only once before sampling → could not collect more water ↓

Well did not recharge at the end of fieldwork.

SIGNATURE:

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address: 40-76 William St, Leichhardt	Job Number: E24470
Client: Ceerose	Date: 10/01/2020
Field Staff: Luiza Barbosa	Sampling Location ID BH9M
Well Location: car parking (access through North St)	Round No: 1
MEDIUM ☒Groundwater ☐Surface Water	☐Stormwater ☐Other:
SAMPLING POINT INFO	BH9M-1
Well Installation Date:	Stick up / (down) (m): -0.165 (+ above ground - below ground)
Initial Well Depth (mBTOC):	Screen Interval (mBTOC):
Previous Sampling Date:	Previous SWL (mBTOC):
PID READINGS	
PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	
PRE PURGE	
Total Well Depth (mBTOC): 9.58	Well Head Condition: good
SWL (mBTOC): 4.17	Water Column (m): 5.41
PHASE SEPARATED HYDROCARBONS (PSH)	
Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	
PURGE AND SAMPLE	
Sampling Method ☑Bladder ☐Peristaltic ☐Submersible ☐Other:	
Depth of Pump Inlet (mBTOC): 7.50	Fill Timer: 10.0
Pump Pressure Regulator (psi): 40	Discharge Timer: 5.0
Weather Conditions: sunny	Cycle: CPM4
Pump on time: 1:15	Pump off time: 1:43
WATER QUALITY PARAMETERS	
Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
1:17	1.5	5.96	20.92	332	127.5	1.69	4.72	Grey/brown, m turbidity,
1:19	2.0	6.13	21.06	344	128.9	1.68	4.73	no odour, no sheen.
1:23	2.5	6.37	20.95	343	124.0	1.62	4.78	↓
1:25	3.0	6.51	20.76	347	124.6	1.69	4.75	↓
								sampled
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:

SIGNATURE:

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address: 40-76 William St, Leichhardt	Job Number: E24470
Client:	Date: 3.9.21
Field Staff: NA	Sampling Location ID BH3M
Well Location:	Round No: 1

MEDIUM ☑Groundwater ☐Surface Water ☐Stormwater ☐Other:

SAMPLING POINT INFO	
Well Installation Date:	Stick up / down (m): -0.085m (+ above ground - below ground)
Initial Well Depth (mBTOC):	Screen Interval (mBTOC):
Previous Sampling Date:	Previous SWL (mBTOC):
PID READINGS	
PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	
PRE PURGE	
Total Well Depth (mBTOC):	Well Head Condition: ~~ge~~ fair
SWL (mBTOC): 3.14m	Water Column (m): 6.70m
PHASE SEPARATED HYDROCARBONS (PSH)	
Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	
Field Filtered	
Yes (0.45 µm) ☐	No ☐ (Request lab 0.45 µm filter the sample)
PURGE AND SAMPLE	
Sampling Method ☐Bladder ☐Peristaltic ☐Submersible ☐Other:	
Depth of Pump Inlet (mBTOC): 7.35m	Fill Timer: 10
Pump Pressure Regulator (psi): 35	Discharge Timer: 5.1
Weather Conditions: ~~clear~~ Overcast	Cycle: CPM4
Pump on time: 8:30	Pump off time: 8:55
WATER QUALITY PARAMETERS	
Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
8:45	0.5	3.13	21.64	622	141.6	1.20	4.51	clear ~~Brown~~, ~~M~~ turbid, no, no
8:48	1.0	3.14	21.66	625	142.1	1.23	4.52	↓
8:51	1.5	3.12	21.65	620	146.2	1.23	4.51	
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:
Soil observed in gatic cover, was removed befor sampling.

SIGNATURE: ~~N. Allen~~

WATER SAMPLING FIELD SHEET

eiaustralia

Site Address: 40-76 Williams St, Liechhardt	Job Number: E24470
Client:	Date: 3.9.21
Field Staff: NA	Sampling Location ID BH9M
Well Location:	Round No: 1
MEDIUM ☑Groundwater ☐Surface Water	☐Stormwater ☐Other:
SAMPLING POINT INFO	
Well Installation Date:	Stick up / down (m): -0.165m (+ above ground - below ground)
Initial Well Depth (mBTOC):	Screen Interval (mBTOC):
Previous Sampling Date:	Previous SWL (mBTOC):
PID READINGS	
PID Headspace (ppm):	PID Background (ppm):
PID Breathing Space (ppm):	
PRE PURGE	
Total Well Depth (mBTOC): 9.60	Well Head Condition: fair
SWL (mBTOC): 4.22	Water Column (m): 5.38
PHASE SEPARATED HYDROCARBONS (PSH)	
Depth to PSH (mBTOC):	PSH Visually Confirmed (Bailer):
PSH Thickness (mm):	
Field Filtered	
Yes (0.45 µm) ☑	No ☐ (Request lab 0.45 µm filter the sample)
PURGE AND SAMPLE	
Sampling Method ☑Bladder ☐Peristaltic ☐Submersible	☐Other:
Depth of Pump Inlet (mBTOC): 7.35	Fill Timer:
Pump Pressure Regulator (psi): 40	Discharge Timer:
Weather Conditions: Overcast	Cycle:
Pump on time: 9:05	Pump off time:
WATER QUALITY PARAMETERS	
Probe Make and Model:	Bump Test Date and Time:

Time	Volume (L)	SWL (mbtoc)	Temp (°C)	EC (µS/cm)	Redox (mV)	DO (mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
9:10	0.5	5.11	20.10	320	126.0	1.51	4.69	light grey to brown, M. turbid, no, no
9:20	1.0	5.24	20.02	321	126.9	1.54	4.71	
9:30	1.5	5.30	20.11	319	122.4	1.52	4.69	
Stabilisation range: 3 consecutive readings			±0.2°C	±3%	±20mV	±10%	±0.2	

OTHER COMMENTS/OBSERVATIONS:
Soil observed in gatic over. Was removed prior to sampling.

SIGNATURE:

Appendix I - Chain of Custody and Sample Receipt Forms

Sheet 1 of 1

Site: 40-76 William ST, Leichhardt NSW

Project No: E24470.

Laboratory: **Envirolab Services**
12 Ashley Street,
CHATSWOOD NSW 2067
P: 02 9910 6200

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS				TCLP HM [B] / PAH
QT1	01	J	17/12	PM		X				X													

Container Type:
J= solvent washed, acid rinsed, Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / Turbidity NTU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other

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

Job No: 233679
Date Received: 20/12/2019
Time Received: 1606
Received by: R
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI):	Received by (Envirolab)
Print: SL	Print: Ray
Signature:	Signature:
Date: 20/12/19	Date: 1606 20.12.19

Sampler's Comments:
Please CC Ben Aggar

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

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

SAMPLE RECEIPT ADVICE

Client Details

Client	EI Australia
Attention	Ben Aggar, Sharon Li

Sample Login Details

Your reference	E24470, Leichhardt
Envirolab Reference	233679
Date Sample Received	20/12/2019
Date Instructions Received	20/12/2019
Date Results Expected to be Reported	06/01/2020

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14.1
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Acid Extractable metalsin soil
QT1	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Sheet 1 of 1

Site: 40-76 William St. Leichhardt. NSW

Project No: E24470

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	Phenols			TCLP HM [B] / PAH
BH1M-1		P,S,2xVC	10/01/20	AM/PM	X				X			X								X			
BH3M-1		↓	↓	↓	↓				X			X								X			
BH4M-1									X			X								X			
BH9M-1									X			X								X			
GWQD1										X													
GWQR1										X													
GWQRB1		↓	↓	↓																			
GWQTS1	~~⊗~~	lab prepared								X													
GWQTB1		↓			↓					X													

Container Type:
J= solvent washed, acid rinsed,Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC March 2018 FORM v.4 - SGS

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / Turbidity NTU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

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

Job No: 234412

Date Received: 13/01/2020
Time Received: 14:44
Received by: KG
Temp: Cool/Ambient
Cooling: Ice/Icepack 18.8°C
Security: Intact/Broken/None

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):	Received by (SGS):
Print: Luiza Barbosa	Print: Emily Y.
Signature:	Signature:
Date: 10/01/2020	Date: 10/1/20 @ 4.55p

IMPORTANT.
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table ☐

Sampler's Comments:

Please send GWQT1 to Envirolab and cc Sharon Li (1)

Andrew (Fitzy) Fitzsimons

From: Sharon Li - ElAustralia <sharon.li@eiaustralia.com.au>
Sent: Wednesday, 15 January 2020 1:41 PM
To: Aileen Hie; Simon Song; Samplereceipt
Cc: Benjamin Aggar - ElAustralia; Luiza Barbosa - Elaustralia
Subject: RE: Sample Receipt for 234412 E24470, Leichardt

Follow Up Flag: Follow up
Flag Status: Flagged

234412

Hi Envirolab,

Please test GWQT1 for the following on 72 hrs TAT:

- heavy metals;
- TPH; and
- BTEX.

Kind Regards,

Sharon(Shuoqi) Li
MPhil, BEng
Geotechnical/Environmental Engineer

T 0295160722 M 0420225205
E sharon.li@eiaustralia.com.au

Suite 6.01, 55 Miller Street
Pyrmont, NSW 2009

www.eiaustralia.com.au

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Environmental | Geotechnical | Structural | Civil | Hazardous Materials

El Australia is a proud member of the Australian Contaminated Land Consultants Association and the Australian Geomechanics Society.

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Please consider the environment before printing this email.

From: Aileen Hie <AHie@envirolab.com.au>
Sent: Monday, 13 January 2020 6:45 PM
To: Laboratory Results - ElAustralia <lab@eiaustralia.com.au>
Subject: Sample Receipt for 234412 E24470, Leichardt

Please refer to attached for:
a copy of the COC/paperwork received from you
a copy of our Sample Receipt Advice (SRA)
Please open and read the SRA as it contains important information.
Please let the lab know immediately if there are any issues.

Results will be available by 6.30pm on the date indicated.

PLEASE NOTE COMBO PRICES WILL ONLY APPLY IF COMBOS ARE SELECTED ON COC.

We have a new reporting format and would welcome your feedback. Sydney@envirolab.com.au

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

SAMPLE RECEIPT ADVICE

Client Details

Client	EI Australia
Attention	Luiza Barbosa

Sample Login Details

Your reference	E24470, Leichardt
Envirolab Reference	234412
Date Sample Received	13/01/2020
Date Instructions Received	15/01/2020
Date Results Expected to be Reported	20/01/2020

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Water
Turnaround Time Requested	3 days
Temperature on Receipt (°C)	18.8
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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

Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	HM in water - dissolved
GWQT1	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

E-MAILED 20/12/19 @ 12:31

Sheet 1 of 4

Site: 40-76 William ST, Leichardt NSW. Project No: E24470

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	Phenols			TCLP HM [B] / PAH
BH1M_0.3-0.4		J,ZB	16/12	AM		X																	
0.8-0.9	1	↓	↓	↓		↓		X				X								X			
1.4-1.5																							
2.0-2.2	2		↓					X				X								X			
BH2_0.3-0.4	3		16/12					X				X								X			
0.9-1.0	4		↓					X				X								X			
BH3M_0.3-0.4	5		8/12					X				X								X			
0.8-0.9			↓																				
1.6-1.8																							
2.0-2.2			↓																				
BH4M_0.2-0.3		↓	18/12	↓		↓																	
0.8-0.9	6		↓					X			X									X			

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / Turbidity NTU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other

Container Type:
J= solvent washed, acid rinsed, Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI):	Received by (SGS):
Print: SL	Print: Suba
Signature:	Signature:
Date: 20/12/19	Date: 20/12/19 @ 11:40

Sampler's Comments:
Please CC Ben App

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

SB 201451

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

Sheet 2 of 4

Site: 40-76 William ST Leichardt NSW

Project No: E4470

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	Phenols			TCLP HM [B] / PAH
BH4M_1.4-1.5		J,ZLB	18/12	PM		X																	
-2.0-2.1	7		↓	↓					X			X											
-2.6-2.7			↓	↓																			
BH5_0.3-0.4	8		16/12					X				X								X			
BH6_0.2-0.3			16/12																				
0.4-0.5	9		↓	↓				X				X								X			
0.6-0.7	10		↓	↓					X			X											
BH7_0.3-0.4	11		↓	↓					X			X											
BH8_0.3-0.4	12		16/12						X			X											
BH9a_0.2-0.3			17/12																				
0.5-0.7	13		↓	↓				X				X								X			
BH9b_0.6-0.7		↓	↓	↓		↓																	

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / Turbidity NTU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other

Container Type:
J= solvent washed, acid rinsed, Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI):	Received by (SGS):
Print: SL	Print: Suba
Signature: SL	Signature:
Date: 20/12/19	Date: 20/12/19 @ 11.40

Sampler's Comments:

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

Sheet 3 of 4

Site: 40-76 William ST Leichardt NSW 2040. | Project No:

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM Δ /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM Δ /TRH/BTEX/PAHs	HM Δ /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	Phenols			TCLP HM B / PAH
BH10_0.3-0.4	14	J, ZLB	17/12	AM		X		X				X							X				
BH11_0.2-0.3	15	↓	↓						X			X											
BH12_0.3-0.4	16							X				X							X				
BH13_0.3-0.4	17		18/12						X			X											
BH14_0.4-0.5	18							X				X							X				
0.9-1.0	19								X			X											
1.4-1.5																							
BH15_0.4-0.5	20							X				X							X				
0.9-1.0	21								X			X											
BH16_0.4-0.5	22							X				X							X				
1.0-1.1																							
BH17_0.4-0.5	23	↓	↓	↓		↓		X				X							X				

Comments

HM Δ
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM B
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / Turbidity NTU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J= solvent washed, acid rinsed, Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI):	Received by (SGS):
Print: SL	Print: Suba
Signature: SL	Signature:
Date: 20/12/19	Date: 20/12/19 @ 11.40

Sampler's Comments:

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

Sheet 4 of 4

Site: 40-76 William St Leichardt

Project No: E4470.

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS				TCLP HM [B] / PAH
BH17-1.0-1.1		J,ZLB	18/12	PM		X																	
1.4-1.5		↓	↓	↓		↓																	
2.0-2.1	24	↓	↓	↓		↓			X			X											
2.5-2.6		↓	↓	↓		↓																	
QD1	25	J	17/12			↓				X													
QR1	26	S,P,VC	18/12		X					X													
QRB1		S,P,VC	↓	↓	X																		
QTS1	27	VC	↓	↓		X					X												
QTB1	28	VC	↓	↓		X					X												

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / Turbidity NTU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J= solvent washed, acid rinsed, Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI):	Received by (SGS):
Print: SL	Print: Suha
Signature: SL	Signature: Suha
Date: 20/12/19	Date: 20/12/19 @ 11.40

Sampler's Comments:

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

SAMPLE RECEIPT ADVICE

SE201451

CLIENT DETAILS

Contact	Benjamin Aggar
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	benjamin.aggar@eiaustralia.com.au
Project	**E24470 40-76 William St, Leichardt NSW**
Order Number	**E24470**
Samples	28

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Fri 20/12/2019
Report Due	Mon 13/1/2020
SGS Reference	**SE201451**

SUBMISSION DETAILS

This is to confirm that 28 samples were received on Friday 20/12/2019. Results are expected to be ready by COB Monday 13/1/2020. Please quote SGS reference SE201451 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	27 Soil, 1 Water
Date documentation received	20/12/2019@12:07pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	6.1°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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

COMMENTS

Extra sample BH2_2.1-2.3 received.
16 Soil and 1 Water samples have been placed on hold as no tests have been assigned for them by the client . These samples will not be processed.
Due date changed due to SGS Sydney Shut Down Period will be Monday 30th of December 2019 to Friday 10th of January 2020.

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

SAMPLE RECEIPT ADVICE

SE201451

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St, Leichardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH1M_0.8-0.9	29	14	26	11	1	10	81	7
002	BH1M_2.0-2.2	29	14	26	11	1	10	81	7
003	BH2M_0.3-0.4	29	14	26	11	1	10	81	7
004	BH2M_0.9-1.0	29	14	26	11	1	10	81	7
005	BH3M_0.3-0.4	29	14	26	11	1	10	81	7
006	BH4M_0.8-0.9	29	14	26	11	1	10	11	7
007	BH4M_2.0-2.1	-	-	26	-	-	10	81	7
008	BH5M_0.3-0.4	29	14	26	11	1	10	81	7
009	BH6M_0.4-0.5	29	14	26	11	1	10	81	7
010	BH6M_0.6-0.7	-	-	26	-	-	10	81	7
011	BH7M_0.3-0.4	-	-	26	-	-	10	81	7
012	BH8M_0.3-0.4	-	-	26	-	-	10	81	7
013	BH8M_0.5-0.7	29	14	26	11	1	10	81	7
014	BH10_0.3-0.4	29	14	26	11	1	10	81	7
015	BH11_0.2-0.3	-	-	26	-	-	10	81	7
016	BH12_0.3-0.4	29	14	26	11	1	10	81	7
017	BH13_0.3-0.4	-	-	26	-	-	10	81	7
018	BH14_0.4-0.5	29	14	26	11	1	10	81	7
019	BH14_0.9-1.0	-	-	26	-	-	10	81	7
020	BH15_0.4-0.5	29	14	26	11	1	10	81	7
021	BH15_0.9-1.0	-	-	26	-	-	10	81	7
022	BH16_0.4-0.5	29	14	26	11	1	10	81	7
023	BH17_0.4-0.5	29	14	26	11	1	10	81	7
024	BH17_2.0-2.1	-	-	26	-	-	10	81	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE201451

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St, Leichardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
025	QD1	10	11	7
027	QTS1	-	8	-
028	QTB1	-	11	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
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Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE201451

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St, Leichardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content	Total Recoverable Elements in Soil/Waste
001	BH1M_0.8-0.9	2	1	1	7
002	BH1M_2.0-2.2	2	1	1	7
003	BH2M_0.3-0.4	2	1	1	7
004	BH2M_0.9-1.0	2	1	1	7
005	BH3M_0.3-0.4	2	1	1	7
006	BH4M_0.8-0.9	2	1	1	7
007	BH4M_2.0-2.1	-	1	1	7
008	BH5M_0.3-0.4	2	1	1	7
009	BH6M_0.4-0.5	2	1	1	7
010	BH6M_0.6-0.7	-	1	1	7
011	BH7M_0.3-0.4	-	1	1	7
012	BH8M_0.3-0.4	-	1	1	7
013	BH8M_0.5-0.7	2	1	1	7
014	BH10_0.3-0.4	2	1	1	7
015	BH11_0.2-0.3	-	1	1	7
016	BH12_0.3-0.4	2	1	1	7
017	BH13_0.3-0.4	-	1	1	7
018	BH14_0.4-0.5	2	1	1	7
019	BH14_0.9-1.0	-	1	1	7
020	BH15_0.4-0.5	2	1	1	7
021	BH15_0.9-1.0	-	1	1	7
022	BH16_0.4-0.5	2	1	1	7
023	BH17_0.4-0.5	2	1	1	7
024	BH17_2.0-2.1	-	1	1	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE201451

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St, Leichardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury in Soil	Moisture Content	Total Recoverable Elements in Soil/Waste
025	QD1	1	1	7
028	QTB1	-	1	-

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE201451

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St, Leichardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
026	QR1	1	7	9	11	7

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

source: [Untitled].pdf page: 1 SGS Ref: SE201451A_COC

Yin, Emily (Sydney)

From: Sharon Li - EIAustralia <sharon.li@eiaustralia.com.au>
Sent: Friday, 10 January 2020 4:51 PM
To: AU.Environmental.Sydney (Sydney); AU.SampleReceipt.Sydney (Sydney)
Cc: Benjamin Aggar - EIAustralia
Subject: [EXTERNAL] RE: Report Job SE201451, your reference E24470 40-76 William St, Leichardt NSW, order number E24470

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

Hi SGS,

Please run TCLP on the following on standard TAT:

B(a)p:
7 BH4M_2.0-2.1;
9 BH6M_0.4-0.5;
18 BH14_0.4-0.5.

Lead:
18 BH14_0.4-0.5;
19 BH14_0.9-1.0;
20 BH15_0.4-0.5.

Hg:
9 BH6M_0.4-0.5

SGS EHS Alexandria Laboratory
SE201451A COC
Received: 10 – Jan – 2020

And please re-issue the lab report according to the sample ID on the COC. Some sample IDs were wrong in the current version. Thanks, and have a good weekend!

Sharon(Shuoqi) Li
MPhil, BEng
Geotechnical/Environmental Engineer

T 0295160722 M 0420225205
E sharon.li@eiaustralia.com.au

Suite 6.01, 55 Miller Street
Pyrmont, NSW 2009

www.eiaustralia.com.au

Environmental | Geotechnical | Structural | Civil | Hazardous Materials

EI Australia is a proud member of the Australian Contaminated Land Consultants Association and the Australian Geomechanics Society.

source: [Untitled].pdf page: 1 SGS Ref: SE201694_COC

source: [Untitled]_20200112233259674.pdf page: 1 SGS Ref: SE201694_COC

Sheet 1 of 1

Site: 40-76 William St. Leichhardt NSW

Project No: E2447K

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/BTEX/PAHs	HM[A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	Phenols			TCLP HM[B] / PAH
BH1M-1	1	P,S,2xVC	10/01/20	AM/PM	X				X			X								X			
BH3M-1	2	↓	↓	↓	↓				X			X								X			
BH4M-1	3								X			X								X			
BH9M-1	4								X			X								X			
GWQD1	5									X													
GWQR1	6									X													
GWQRB1		↓	↓	↓																			
GWQTS1	7	lab prepared								X													
GWQTB1	8	↓			↓					X													

SGS EHS Alexandria Laboratory

SE201694 COC
Received: 10 – Jan – 2020

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / Turbidity NTU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other .....

Container Type:
J= solvent washed, acid rinsed,Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI):	Received by (SGS):
Print: Luiza Barbosa	Print: Emily Y.
Signature:	Signature:
Date: 10/01/2020	Date: 10/1/20 @ 4.55p

Sampler's Comments:
Please send GWQT1 to Envirolab and cc Sharon Li

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Yin, Emily (Sydney)

From: Sharon Li - EIAustralia <sharon.li@eiaustralia.com.au>
Sent: Wednesday, 15 January 2020 2:39 PM
To: AU.Environmental.Sydney (Sydney); AU.SampleReceipt.Sydney (Sydney); Harley, Paul (Sydney)
Cc: Benjamin Aggar - EIAustralia
Subject: [EXTERNAL] RE: SRA & COC for Job SE201694, your reference E24470 40-76 William St Leichhardt NSW, order number E24470

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

Hi SGS,

Please test BTEX only for GWQTS1 and GWQTB1 in this job. The rest samples remain the same as requested in the COC.

Sharon(Shuoqi) Li
MPhil, BEng
Geotechnical/Environmental Engineer

T 0295160722 M 0420225205
E sharon.li@eiaustralia.com.au

Suite 6.01, 55 Miller Street
Pyrmont, NSW 2009

www.eiaustralia.com.au

Environmental | Geotechnical | Structural | Civil | Hazardous Materials

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Please consider the environment before printing this email.

-----Original Message-----
From: AU.Environmental.Sydney@SGS.com <AU.Environmental.Sydney@SGS.com>
Sent: Wednesday, 15 January 2020 1:38 PM
To: Laboratory Results - EIAustralia <lab@eiaustralia.com.au>; Luiza Barbosa - Elaustralia <luiza.barbosa@eiaustralia.com.au>; Sharon Li - EIAustralia <sharon.li@eiaustralia.com.au>

SAMPLE RECEIPT ADVICE

SE201694

CLIENT DETAILS

Contact	Luiza Barbosa
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	Luiza.Barbosa@eiaustralia.com.au
Project	**E24470 40-76 William St Leichhardt NSW**
Order Number	**E24470**
Samples	8

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Fri 10/1/2020
Report Due	Fri 17/1/2020
SGS Reference	**SE201694**

SUBMISSION DETAILS

This is to confirm that 8 samples were received on Friday 10/1/2020. Results are expected to be ready by COB Friday 17/1/2020. Please quote SGS reference SE201694 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	8 Water
Date documentation received	10/1/2020	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	4.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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

COMMENTS

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SAMPLE RECEIPT ADVICE

SE201694

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St Leichhardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	Total Phenolics in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	BH1M-1	1	22	1	7	9	78	7
002	BH3M-1	1	22	1	7	9	78	7
003	BH4M-1	1	22	1	7	9	78	7
004	BH9M-1	1	22	1	7	9	78	7
005	GWQD1	1	-	-	7	9	11	7
006	GWQR1	1	-	-	7	9	11	7
007	GWQTS1	-	-	-	-	-	8	-
008	GWQTB1	-	-	-	-	-	11	-

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 .

source: Sydney.pdf page: 1 SGS Ref: SE223412_COC

E-MAILED
9/9/21 @ 1.10 pm

Sheet ___ of

Site: 40-76 William St, Leichhardt NSW

Project No: E24470

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM A /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM A /TRH/BTEX/PAHs	HM A /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride			TCLP HM B / PAH
BH3M-1	1	S, P, VC	3-9-21	PM		X											X										
BH9M-1	2	↓				X											X										

SGS EHS Sydney COC
SE223412

Comments

HM A
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM B
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH

LABORATORY TURNAROUND
- [ ] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [x] 72 Hours
- [ ] Other____

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass botlle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table [ ]

Sampler's Name (EI):	Received by (SGS):
Print: Nikolce Aleksiesk	Print: George Zhi
Signature:	Signature:
Date: 3.9.21	Date: 3/9/21 @ 4:20 pm

Sampler's Comments: Please filter both ✓ samples with 0.45µm filter for metal analysis.

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Contamination · Remediation · Geotechnical
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

SAMPLE RECEIPT ADVICE

SE223412

CLIENT DETAILS

Contact	Nikolce Aleksieski
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 9516 0722
Facsimile	(Not specified)
Email	nikolce.aleksieski@eiaustralia.com.au
Project	**E24470 40-76 William St, Leichhardt NSW**
Order Number	**E24470**
Samples	2

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Fri 3/9/2021
Report Due	Tue 14/9/2021
SGS Reference	**SE223412**

SUBMISSION DETAILS

This is to confirm that 2 samples were received on Friday 3/9/2021. Results are expected to be ready by COB Tuesday 14/9/2021. Please quote SGS reference SE223412 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	2 Water
Date documentation received	09/09/2021 @1:10PM	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	13°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three Days		

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

COMMENTS

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SAMPLE RECEIPT ADVICE

SE223412

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St, Leichhardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	pH in water	Total Dissolved Solids (TDS) in water	TRH (Total Recoverable Hydrocarbons) in Water	Turbidity	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	BH3M-1	1	23	1	1	9	1	11	7
002	BH9M-1	1	23	1	1	9	1	11	7

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE223412

CLIENT DETAILS

Client EI AUSTRALIA

Project E24470 40-76 William St, Leichhardt NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Metals in Water (Dissolved) by ICPOES	Total Cyanide in water by Discrete Analyser	Trace Metals (Dissolved) in Water by ICPMS
001	BH3M-1	1	3	1	8
002	BH9M-1	1	3	1	8

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

Appendix J - Laboratory Analytical Reports

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

CERTIFICATE OF ANALYSIS 233679

Client Details

Client	EI Australia
Attention	Ben Aggar, Sharon Li
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	**E24470, Leichhardt**
Number of Samples	1 Soil
Date samples received	20/12/2019
Date completed instructions received	20/12/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	06/01/2020
Date of Issue	31/12/2019

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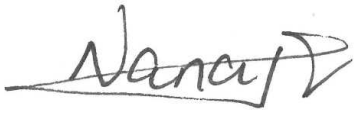
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Jaimie Loa-Kum-Cheung, Metals Supervisor
Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		233679-1
Your Reference	UNITS	QT1
Date Sampled		17/12/2019
Type of sample		Soil
Date extracted	-	23/12/2019
Date analysed	-	30/12/2019
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<3
Surrogate aaa-Trifluorotoluene	%	103

svTRH (C10-C40) in Soil		
Our Reference		233679-1
Your Reference	UNITS	QT1
Date Sampled		17/12/2019
Type of sample		Soil
Date extracted	-	23/12/2019
Date analysed	-	24/12/2019
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	87

Acid Extractable metals in soil		
Our Reference		233679-1
Your Reference	UNITS	QT1
Date Sampled		17/12/2019
Type of sample		Soil
Date prepared	-	23/12/2019
Date analysed	-	23/12/2019
Arsenic	mg/kg	5
Cadmium	mg/kg	<0.4
Chromium	mg/kg	3
Copper	mg/kg	2
Lead	mg/kg	6
Mercury	mg/kg	<0.1
Nickel	mg/kg	3
Zinc	mg/kg	7

Moisture		
Our Reference		233679-1
Your Reference	UNITS	QT1
Date Sampled		17/12/2019
Type of sample		Soil
Date prepared	-	23/12/2019
Date analysed	-	24/12/2019
Moisture	%	18

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			23/12/2019	[NT]	[NT]	[NT]	[NT]	23/12/2019	[NT]
Date analysed	-			30/12/2019	[NT]	[NT]	[NT]	[NT]	30/12/2019	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	113	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	113	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	[NT]	[NT]	108	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	[NT]	[NT]	113	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	115	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	114	[NT]
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	115	[NT]
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	104	[NT]	[NT]	[NT]	[NT]	115	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			23/12/2019	[NT]	[NT]	[NT]	[NT]	23/12/2019	[NT]
Date analysed	-			24/12/2019	[NT]	[NT]	[NT]	[NT]	24/12/2019	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	134	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	136	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	134	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	118	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	136	[NT]
Surrogate o-Terphenyl	%		Org-003	89	[NT]	[NT]	[NT]	[NT]	109	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/12/2019	[NT]	[NT]	[NT]	[NT]	23/12/2019	[NT]
Date analysed	-			23/12/2019	[NT]	[NT]	[NT]	[NT]	23/12/2019	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	98	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	91	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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

CERTIFICATE OF ANALYSIS 234412

Client Details

Client	EI Australia
Attention	Luiza Barbosa
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	**E24470, Leichardt**
Number of Samples	1 Water
Date samples received	13/01/2020
Date completed instructions received	15/01/2020

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	20/01/2020
Date of Issue	20/01/2020

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
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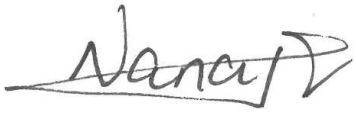

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water		
Our Reference		234412-1
Your Reference	UNITS	GWQT1
Date Sampled		10/01/2020
Type of sample		Water
Date extracted	-	16/01/2020
Date analysed	-	17/01/2020
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	103
Surrogate toluene-d8	%	96
Surrogate 4-BFB	%	100

svTRH (C10-C40) in Water		
Our Reference		234412-1
Your Reference	UNITS	GWQT1
Date Sampled		10/01/2020
Type of sample		Water
Date extracted	-	16/01/2020
Date analysed	-	16/01/2020
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	77

HM in water - dissolved		
Our Reference		234412-1
Your Reference	UNITS	GWQT1
Date Sampled		10/01/2020
Type of sample		Water
Date prepared	-	16/01/2020
Date analysed	-	16/01/2020
Arsenic-Dissolved	µg/L	2
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	7
Zinc-Dissolved	µg/L	45

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			16/01/2020	[NT]	[NT]	[NT]	[NT]	16/01/2020	[NT]
Date analysed	-			17/01/2020	[NT]	[NT]	[NT]	[NT]	17/01/2020	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	107	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	105	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	102	[NT]	[NT]	[NT]	[NT]	97	[NT]
Surrogate toluene-d8	%		Org-016	94	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate 4-BFB	%		Org-016	102	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			16/01/2020	[NT]	[NT]	[NT]	[NT]	16/01/2020	[NT]
Date analysed	-			16/01/2020	[NT]	[NT]	[NT]	[NT]	16/01/2020	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	77	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	77	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	74	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	77	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	77	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	74	[NT]
Surrogate o-Terphenyl	%		Org-003	82	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			16/01/2020	[NT]	[NT]	[NT]	[NT]	16/01/2020	[NT]
Date analysed	-			16/01/2020	[NT]	[NT]	[NT]	[NT]	16/01/2020	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	109	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Benjamin Aggar
Client	EI AUSTRALIA
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Facsimile	(Not specified)
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Project	**E24470 40-76 William St, Leichardt NSW**
Order Number	**E24470**
Samples	28

LABORATORY DETAILS

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SGS Reference	**SE201451 R1**
Date Received	20/12/2019
Date Reported	13/1/2020

COMMENTS

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

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

Sample #13: Asbestos found in approx 20x15x5mm cement sheet fragments.

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

This report cancels and supersedes the report No.SE201451 R0 dated 2nd January 2020 issued by SGS Environment, Health and Safety due to amendment to Sample Id's.

SIGNATORIES

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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: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
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	**0.4**	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	**0.6**	<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	**0.8**	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	**1.3**	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	<1	<1	<1
Chloromethane	mg/kg	1	<1	<1	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	<1	<1	<1	<1	<1
Chloroethane	mg/kg	1	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	<1	<1	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	<10	<10	<10	<10	<10
Iodomethane	mg/kg	5	<5	<5	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	<10	<10	<10	<10	<10
MEK (2-butanone)	mg/kg	10	<10	<10	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	<10	<10	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	<5	<5	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	<24	<24	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	<3.0	<3.0	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	<1	<1	<1	<1
Chloromethane	mg/kg	1	-	<1	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	-	<1	<1	<1	<1
Chloroethane	mg/kg	1	-	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	-	<1	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	-	<10	<10	<10	<10
Iodomethane	mg/kg	5	-	<5	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	-	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	-	<10	<10	<10	<10
MEK (2-butanone)	mg/kg	10	-	<10	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	-	<10	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	-	<5	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	-	<1	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	-	<1	<1	<1	<1

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
Isopropylbenzene (Cumene)	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	-	<0.1	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	-	<24	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	<3.0	<3.0	<3.0	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	<1.8	<1.8	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	<1.8	<1.8	<1.8	<1.8

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	<1	<1	<1
Chloromethane	mg/kg	1	<1	<1	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	<1	<1	<1	<1	<1
Chloroethane	mg/kg	1	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	<1	<1	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	<10	<10	<10	<10	<10
Iodomethane	mg/kg	5	<5	<5	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	<10	<10	<10	<10	<10
MEK (2-butanone)	mg/kg	10	<10	<10	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	<10	<10	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	<5	<5	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	<24	<24	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	<3.0	<3.0	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	<1	<1	<1
Chloromethane	mg/kg	1	<1	<1	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	<1	<1	<1	<1	<1
Chloroethane	mg/kg	1	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	<1	<1	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	<10	<10	<10	<10	<10
Iodomethane	mg/kg	5	<5	<5	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	<10	<10	<10	<10	<10
MEK (2-butanone)	mg/kg	10	<10	<10	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	<10	<10	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	<5	<5	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	<24	<24	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	<3.0	<3.0	<3.0
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024	QD1 SOIL - 17/12/2019 SE201451.025
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	<1	<1	-
Chloromethane	mg/kg	1	<1	<1	<1	<1	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Bromomethane	mg/kg	1	<1	<1	<1	<1	-
Chloroethane	mg/kg	1	<1	<1	<1	<1	-
Trichlorofluoromethane	mg/kg	1	<1	<1	<1	<1	-
Acetone (2-propanone)	mg/kg	10	<10	<10	<10	<10	-
Iodomethane	mg/kg	5	<5	<5	<5	<5	-
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	-
Allyl chloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	-
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Vinyl acetate	mg/kg	10	<10	<10	<10	<10	-
MEK (2-butanone)	mg/kg	10	<10	<10	<10	<10	-
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Chloroform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Dibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
2-nitropropane	mg/kg	10	<10	<10	<10	<10	-
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	<1	<1	-
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
2-hexanone (MBK)	mg/kg	5	<5	<5	<5	<5	-
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Bromoform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	-
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	-

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024	QD1 SOIL - 17/12/2019 SE201451.025
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Bromobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-
Total VOC*	mg/kg	24	<24	<24	<24	<24	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	<3.0	<3.0	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	-

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	QTS1 SOIL - 18/12/2019 SE201451.027	QTB1 SOIL - 18/12/2019 SE201451.028
Benzene	mg/kg	0.1	[94%]	<0.1
Toluene	mg/kg	0.1	[97%]	<0.1
Ethylbenzene	mg/kg	0.1	[97%]	<0.1
m/p-xylene	mg/kg	0.2	[97%]	<0.2
o-xylene	mg/kg	0.1	[98%]	<0.1
Total Xylenes	mg/kg	0.3	-	<0.3
Total BTEX	mg/kg	0.6	-	<0.6
Naphthalene	mg/kg	0.1	-	<0.1
Dichlorodifluoromethane (CFC-12)	mg/kg	1	-	-
Chloromethane	mg/kg	1	-	-
Vinyl chloride (Chloroethene)	mg/kg	0.1	-	-
Bromomethane	mg/kg	1	-	-
Chloroethane	mg/kg	1	-	-
Trichlorofluoromethane	mg/kg	1	-	-
Acetone (2-propanone)	mg/kg	10	-	-
Iodomethane	mg/kg	5	-	-
1,1-dichloroethene	mg/kg	0.1	-	-
Acrylonitrile	mg/kg	0.1	-	-
Dichloromethane (Methylene chloride)	mg/kg	0.5	-	-
Allyl chloride	mg/kg	0.1	-	-
Carbon disulfide	mg/kg	0.5	-	-
trans-1,2-dichloroethene	mg/kg	0.1	-	-
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	-	-
1,1-dichloroethane	mg/kg	0.1	-	-
Vinyl acetate	mg/kg	10	-	-
MEK (2-butanone)	mg/kg	10	-	-
cis-1,2-dichloroethene	mg/kg	0.1	-	-
Bromochloromethane	mg/kg	0.1	-	-
Chloroform	mg/kg	0.1	-	-
2,2-dichloropropane	mg/kg	0.1	-	-
1,2-dichloroethane	mg/kg	0.1	-	-
1,1,1-trichloroethane	mg/kg	0.1	-	-
1,1-dichloropropene	mg/kg	0.1	-	-
Carbon tetrachloride	mg/kg	0.1	-	-
Dibromomethane	mg/kg	0.1	-	-
1,2-dichloropropane	mg/kg	0.1	-	-
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	-	-
2-nitropropane	mg/kg	10	-	-
Bromodichloromethane	mg/kg	0.1	-	-
MIBK (4-methyl-2-pentanone)	mg/kg	1	-	-
cis-1,3-dichloropropene	mg/kg	0.1	-	-
trans-1,3-dichloropropene	mg/kg	0.1	-	-
1,1,2-trichloroethane	mg/kg	0.1	-	-
1,3-dichloropropane	mg/kg	0.1	-	-
Chlorodibromomethane	mg/kg	0.1	-	-
2-hexanone (MBK)	mg/kg	5	-	-
1,2-dibromoethane (EDB)	mg/kg	0.1	-	-
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.1	-	-
Chlorobenzene	mg/kg	0.1	-	-
Bromoform	mg/kg	0.1	-	-
cis-1,4-dichloro-2-butene	mg/kg	1	-	-
Styrene (Vinyl benzene)	mg/kg	0.1	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.1	-	-
1,2,3-trichloropropane	mg/kg	0.1	-	-
trans-1,4-dichloro-2-butene	mg/kg	1	-	-

VOC's in Soil [AN433] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	QTS1 SOIL - 18/12/2019 SE201451.027	QTB1 SOIL - 18/12/2019 SE201451.028
Isopropylbenzene (Cumene)	mg/kg	0.1	-	-
Bromobenzene	mg/kg	0.1	-	-
n-propylbenzene	mg/kg	0.1	-	-
2-chlorotoluene	mg/kg	0.1	-	-
4-chlorotoluene	mg/kg	0.1	-	-
1,3,5-trimethylbenzene	mg/kg	0.1	-	-
tert-butylbenzene	mg/kg	0.1	-	-
1,2,4-trimethylbenzene	mg/kg	0.1	-	-
sec-butylbenzene	mg/kg	0.1	-	-
1,3-dichlorobenzene	mg/kg	0.1	-	-
1,4-dichlorobenzene	mg/kg	0.1	-	-
p-isopropyltoluene	mg/kg	0.1	-	-
1,2-dichlorobenzene	mg/kg	0.1	-	-
n-butylbenzene	mg/kg	0.1	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.1	-	-
1,2,4-trichlorobenzene	mg/kg	0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	-	-
1,2,3-trichlorobenzene	mg/kg	0.1	-	-
Total VOC*	mg/kg	24	-	-
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	-	-
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	-	-

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
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	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
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	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
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	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024	QD1 SOIL - 17/12/2019 SE201451.025
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
TRH C10-C14	mg/kg	20	**170**	**53**	<20	<20	<20
TRH C15-C28	mg/kg	45	**380**	**70**	**50**	<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	**240**	**68**	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	**240**	**68**	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	**300**	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	**550**	**120**	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	**540**	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	**120**	<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	**140**	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	**120**	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	**230**	**93**	<45
TRH C29-C36	mg/kg	45	<45	<45	**100**	<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	**310**	**130**	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	**330**	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	**310**	<210	<210

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024	QD1 SOIL - 17/12/2019 SE201451.025
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	**87**	**120**	<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	**120**	**150**	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	**120**	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Naphthalene	mg/kg	0.1	1.4	0.2	0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	0.4	<0.1	0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	0.3	<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	0.3	0.3	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.2	0.4	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	0.2	0.4	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.1	0.2	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.2	<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	0.2	<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	0.3	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	0.4	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	0.3	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	3.0	2.5	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	2.3	2.5	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	0.2	<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	0.2	<0.1	0.8	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	0.2	<0.1	0.5	<0.1
Phenanthrene	mg/kg	0.1	0.6	1.4	0.2	6.4	<0.1
Anthracene	mg/kg	0.1	<0.1	0.5	<0.1	1.0	<0.1
Fluoranthene	mg/kg	0.1	1.5	3.2	0.4	7.9	<0.1
Pyrene	mg/kg	0.1	1.6	3.4	0.5	7.4	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.9	1.3	0.3	3.7	<0.1
Chrysene	mg/kg	0.1	0.9	1.3	0.4	3.3	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	0.9	1.3	0.4	3.3	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	0.5	0.7	0.2	2.0	<0.1
Benzo(a)pyrene	mg/kg	0.1	1.0	1.7	0.5	4.0	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.7	1.0	0.4	2.2	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	0.1	0.2	<0.1	0.5	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.8	1.1	0.5	2.4	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	1.5	2.3	0.7	5.7	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	1.5	2.3	0.8	5.7	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	1.5	2.3	0.7	5.7	<0.2
Total PAH (18)	mg/kg	0.8	9.9	17	3.8	46	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	9.9	17	3.8	46	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
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	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
Naphthalene	mg/kg	0.1	<0.1	<0.1	**0.3**	<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	**0.6**	<0.1	**0.2**
Acenaphthene	mg/kg	0.1	<0.1	<0.1	**0.3**	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	**0.7**	<0.1	**0.1**
Phenanthrene	mg/kg	0.1	<0.1	<0.1	**5.4**	**0.2**	**1.1**
Anthracene	mg/kg	0.1	<0.1	<0.1	**1.1**	<0.1	**0.2**
Fluoranthene	mg/kg	0.1	<0.1	<0.1	**8.2**	**0.4**	**2.3**
Pyrene	mg/kg	0.1	<0.1	<0.1	**8.4**	**0.4**	**2.4**
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	**3.9**	**0.2**	**1.2**
Chrysene	mg/kg	0.1	<0.1	<0.1	**3.4**	**0.2**	**1.1**
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	**3.6**	**0.2**	**1.1**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	**1.7**	**0.1**	**0.5**
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	**4.0**	**0.3**	**1.4**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	**2.7**	**0.2**	**0.8**
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	**0.5**	<0.1	**0.2**
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	**3.0**	**0.3**	**1.0**
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	**5.8**	**0.4**	**1.9**
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	**5.8**	**0.5**	**1.9**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	**5.8**	**0.4**	**1.9**
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	**48**	**2.4**	**14**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	**48**	**2.4**	**14**

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	**0.6**	**0.7**	**0.3**
Anthracene	mg/kg	0.1	<0.1	**0.1**	**0.1**	<0.1
Fluoranthene	mg/kg	0.1	<0.1	**1.1**	**1.4**	**0.5**
Pyrene	mg/kg	0.1	<0.1	**1.1**	**1.5**	**0.5**
Benzo(a)anthracene	mg/kg	0.1	<0.1	**0.6**	**0.7**	**0.3**
Chrysene	mg/kg	0.1	<0.1	**0.6**	**0.5**	**0.3**
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	**0.6**	**0.5**	**0.3**
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	**0.3**	**0.3**	**0.2**
Benzo(a)pyrene	mg/kg	0.1	<0.1	**0.7**	**0.6**	**0.3**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	**0.4**	**0.4**	**0.2**
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	**0.6**	**0.5**	**0.2**
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	**0.9**	**0.8**	**0.4**
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	**1.0**	**0.9**	**0.5**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	**1.0**	**0.9**	**0.4**
Total PAH (18)	mg/kg	0.8	<0.8	**6.7**	**7.1**	**3.0**
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	**6.7**	**7.1**	**3.0**

OC Pesticides in Soil [AN420] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Alpha BHC	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Lindane	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Heptachlor	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Aldrin	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Beta BHC	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Delta BHC	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Heptachlor epoxide	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
o,p'-DDE	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Alpha Endosulfan	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Gamma Chlordane	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Alpha Chlordane	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
trans-Nonachlor	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
p,p'-DDE	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Dieldrin	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Endrin	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
o,p'-DDD	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
o,p'-DDT	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Beta Endosulfan	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
p,p'-DDD	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
p,p'-DDT	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Endosulfan sulphate	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Endrin Aldehyde	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Methoxychlor	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Endrin Ketone	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Isodrin	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Mirex	mg/kg	0.1	<0.1	-	<0.1	<0.1	-
Total CLP OC Pesticides	mg/kg	1	<1	-	<1	<1	-

OC Pesticides in Soil [AN420] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	<0.1	<0.1	-
Alpha BHC	mg/kg	0.1	-	-	<0.1	<0.1	-
Lindane	mg/kg	0.1	-	-	<0.1	<0.1	-
Heptachlor	mg/kg	0.1	-	-	<0.1	<0.1	-
Aldrin	mg/kg	0.1	-	-	<0.1	<0.1	-
Beta BHC	mg/kg	0.1	-	-	<0.1	<0.1	-
Delta BHC	mg/kg	0.1	-	-	<0.1	<0.1	-
Heptachlor epoxide	mg/kg	0.1	-	-	<0.1	<0.1	-
o,p'-DDE	mg/kg	0.1	-	-	<0.1	<0.1	-
Alpha Endosulfan	mg/kg	0.2	-	-	<0.2	<0.2	-
Gamma Chlordane	mg/kg	0.1	-	-	<0.1	<0.1	-
Alpha Chlordane	mg/kg	0.1	-	-	<0.1	<0.1	-
trans-Nonachlor	mg/kg	0.1	-	-	<0.1	<0.1	-
p,p'-DDE	mg/kg	0.1	-	-	<0.1	<0.1	-
Dieldrin	mg/kg	0.2	-	-	<0.2	<0.2	-
Endrin	mg/kg	0.2	-	-	<0.2	<0.2	-
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	-

OC Pesticides in Soil [AN420] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Alpha BHC	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Lindane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Heptachlor	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Aldrin	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Beta BHC	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Delta BHC	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Dieldrin	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Endrin	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Methoxychlor	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Isodrin	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Mirex	mg/kg	0.1	<0.1	-	<0.1	-	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	-	<1	-	<1

OC Pesticides in Soil [AN420] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023
Hexachlorobenzene (HCB)	mg/kg	0.1	-	<0.1	<0.1
Alpha BHC	mg/kg	0.1	-	<0.1	<0.1
Lindane	mg/kg	0.1	-	<0.1	<0.1
Heptachlor	mg/kg	0.1	-	<0.1	<0.1
Aldrin	mg/kg	0.1	-	<0.1	<0.1
Beta BHC	mg/kg	0.1	-	<0.1	<0.1
Delta BHC	mg/kg	0.1	-	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	-	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	-	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	-	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	-	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	-	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	-	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	-	<0.1	<0.1
Dieldrin	mg/kg	0.2	-	<0.2	<0.2
Endrin	mg/kg	0.2	-	<0.2	<0.2
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

OP Pesticides in Soil [AN420] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
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	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014
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	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023
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

PCBs in Soil [AN420] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
Arochlor 1016	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1221	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1232	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1242	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1248	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1254	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1260	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1262	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Arochlor 1268	mg/kg	0.2	<0.2	-	<0.2	<0.2	-
Total PCBs (Arochlors)	mg/kg	1	<1	-	<1	<1	-

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
Arochlor 1016	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1221	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1232	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1242	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1248	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1254	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1260	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1262	mg/kg	0.2	-	-	<0.2	<0.2	-
Arochlor 1268	mg/kg	0.2	-	-	<0.2	<0.2	-
Total PCBs (Arochlors)	mg/kg	1	-	-	<1	<1	-

PCBs in Soil [AN420] Tested: 23/12/2019 (continued)

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
Arochlor 1016	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	-	<0.2	-	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	-	<1	-	<1

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023
Arochlor 1016	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	-	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	-	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	-	<1	<1

Total Phenolics in Soil [AN289] Tested: 27/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Total Phenols	mg/kg	0.1	<0.1	<0.1	<0.1	**0.1**	<0.1

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014
Total Phenols	mg/kg	0.1	**0.3**	<0.1	**0.1**	<0.1	<0.1

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023
Total Phenols	mg/kg	0.1	**0.2**	**0.1**	<0.1	<0.1	<0.1

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Arsenic, As	mg/kg	1	7	4	<1	3	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	29	13	29	27	1.7
Copper, Cu	mg/kg	0.5	100	42	73	34	1.2
Lead, Pb	mg/kg	1	110	110	3	110	7
Nickel, Ni	mg/kg	0.5	34	14	30	22	0.6
Zinc, Zn	mg/kg	2	150	130	40	180	5.7

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
Arsenic, As	mg/kg	1	3	5	10	2	1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	0.4	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	12	9.1	17	11	10
Copper, Cu	mg/kg	0.5	79	17	66	2.9	2.8
Lead, Pb	mg/kg	1	84	35	71	14	13
Nickel, Ni	mg/kg	0.5	4.1	1.0	42	1.0	0.9
Zinc, Zn	mg/kg	2	37	37	60	120	110

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
Arsenic, As	mg/kg	1	2	5	4	6	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	5.2	4.4	13	2.8	5.8
Copper, Cu	mg/kg	0.5	2.5	1.4	25	<0.5	1.7
Lead, Pb	mg/kg	1	29	3	95	1	8
Nickel, Ni	mg/kg	0.5	1.3	11	1.9	1.2	36
Zinc, Zn	mg/kg	2	34	8.7	100	3.6	26

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
Arsenic, As	mg/kg	1	4	<1	5	5	8
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	0.4
Chromium, Cr	mg/kg	0.5	4.5	2.3	12	11	68
Copper, Cu	mg/kg	0.5	1.9	1.0	52	44	74
Lead, Pb	mg/kg	1	8	4	230	270	2500
Nickel, Ni	mg/kg	0.5	7.2	7.6	14	7.1	14
Zinc, Zn	mg/kg	2	13	2.8	87	150	1000

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 23/12/2019

(continued)

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024	QD1 SOIL - 17/12/2019 SE201451.025
Arsenic, As	mg/kg	1	1	5	6	4	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	17	16	20	11	4.6
Copper, Cu	mg/kg	0.5	1.5	20	60	3.6	2.1
Lead, Pb	mg/kg	1	67	110	130	12	8
Nickel, Ni	mg/kg	0.5	0.9	3.8	20	<0.5	5.6
Zinc, Zn	mg/kg	2	28	54	290	9.9	13

Mercury in Soil [AN312] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Mercury	mg/kg	0.05	0.35	0.20	<0.05	0.08	<0.05

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
Mercury	mg/kg	0.05	0.35	0.05	<0.05	6.7	0.06

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
Mercury	mg/kg	0.05	<0.05	0.64	0.36	0.23	0.10

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024	QD1 SOIL - 17/12/2019 SE201451.025
Mercury	mg/kg	0.05	<0.05	0.13	0.19	<0.05	<0.05

Moisture Content [AN002] Tested: 23/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
% Moisture	%w/w	1	17.4	15.7	3.2	9.5	1.8

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451.007	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH6M_0.6-0.7 SOIL - 16/12/2019 SE201451.010
% Moisture	%w/w	1	14.2	14.9	12.7	18.3	14.0

PARAMETER	UOM	LOR	BH7M_0.3-0.4 SOIL - 16/12/2019 SE201451.011	BH8_0.3-0.4 SOIL - 16/12/2019 SE201451.012	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014	BH11_0.2-0.3 SOIL - 17/12/2019 SE201451.015
% Moisture	%w/w	1	10.9	17.5	11.3	17.4	19.1

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH13_0.3-0.4 SOIL - 18/12/2019 SE201451.017	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020
% Moisture	%w/w	1	16.8	7.6	12.1	8.6	11.5

PARAMETER	UOM	LOR	BH15_0.9-1.0 SOIL - 18/12/2019 SE201451.021	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023	BH17_2.0-2.1 SOIL - 18/12/2019 SE201451.024	QD1 SOIL - 17/12/2019 SE201451.025
% Moisture	%w/w	1	12.9	12.2	9.6	35.0	12.7

PARAMETER	UOM	LOR	QTB1 SOIL - 18/12/2019 SE201451.028
% Moisture	%w/w	1	<1.0

Fibre Identification in soil [AN602] Tested: 27/12/2019

PARAMETER	UOM	LOR	BH1M_0.8-0.9 SOIL - 16/12/2019 SE201451.001	BH1M_2.0-2.2 SOIL - 16/12/2019 SE201451.002	BH2_0.3-0.4 SOIL - 16/12/2019 SE201451.003	BH2_0.9-1.0 SOIL - 16/12/2019 SE201451.004	BH3M_0.3-0.4 SOIL - 18/12/2019 SE201451.005
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH4M_0.8-0.9 SOIL - 18/12/2019 SE201451.006	BH5M_0.3-0.4 SOIL - 16/12/2019 SE201451.008	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451.009	BH9a_0.5-0.7 SOIL - 17/12/2019 SE201451.013	BH10_0.3-0.4 SOIL - 17/12/2019 SE201451.014
Asbestos Detected	No unit	-	No	No	No	Yes	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	**>0.01**	<0.01

PARAMETER	UOM	LOR	BH12_0.3-0.4 SOIL - 17/12/2019 SE201451.016	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451.018	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451.020	BH16_0.4-0.5 SOIL - 18/12/2019 SE201451.022	BH17_0.4-0.5 SOIL - 18/12/2019 SE201451.023
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

VOCs in Water [AN433] Tested: 23/12/2019

PARAMETER	UOM	LOR	QR1 WATER - 18/12/2019 SE201451.026
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
Total Xylenes	µg/L	1.5	<1.5
Total BTEX	µg/L	3	<3
Naphthalene	µg/L	0.5	<0.5

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 23/12/2019

PARAMETER	UOM	LOR	QR1 WATER - 18/12/2019 SE201451.026
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 23/12/2019

PARAMETER	UOM	LOR	QR1 WATER - 18/12/2019 SE201451.026
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
TRH >C10-C16	µg/L	60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 24/12/2019

PARAMETER	UOM	LOR	QR1 WATER - 18/12/2019 SE201451.026
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	<1
Lead, Pb	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Zinc, Zn	µg/L	5	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 24/12/2019

PARAMETER	UOM	LOR	QR1 WATER - 18/12/2019 SE201451.026
Mercury	mg/L	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.
AN289	Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.
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, in accordance with USEPA 6020A.
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

AN602	The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	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.pv.sgsvr/en-gb/environment.

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ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

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Project	**E24470 40-76 William St, Leichardt NSW**
Order Number	**E24470**
Samples	15

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SGS Reference	**SE201451 R1**
Date Received	20 Dec 2019
Date Reported	13 Jan 2020

COMMENTS

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

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

Sample #13: Asbestos found in approx 20x15x5mm cement sheet fragments.

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

This report cancels and supersedes the report No.SE201451 R0 dated 2nd January 2020 issued by SGS Environment, Health and Safety due to amendment to Sample Id's.

SIGNATORIES

Dong LIANG
Metals/Inorganics Team Leader

Ly Kim HA
Organic Section Head

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

Shane MCDERMOTT
Inorganic/Metals Chemist

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE201451.001	BH1M_0.8-0.9	Soil	317g Sand, Soil, Rocks	16 Dec 2019	No Asbestos Found	<0.01
SE201451.002	BH1M_2.0-2.2	Soil	382g Clay, Sand, Rocks	16 Dec 2019	No Asbestos Found	<0.01
SE201451.003	BH2_0.3-0.4	Soil	82g Clay, Soil, Rocks, Bitumen	16 Dec 2019	No Asbestos Found	<0.01
SE201451.004	BH2_0.9-1.0	Soil	127g Clay, Sand, Soil, Rocks	16 Dec 2019	No Asbestos Found	<0.01
SE201451.005	BH3M_0.3-0.4	Soil	225g Sand	18 Dec 2019	No Asbestos Found	<0.01
SE201451.006	BH4M_0.8-0.9	Soil	215g Clay, Sand, Rocks	18 Dec 2019	No Asbestos Found	<0.01
SE201451.008	BH5M_0.3-0.4	Soil	206g Sand, Soil, Rocks	16 Dec 2019	No Asbestos Found	<0.01
SE201451.009	BH6M_0.4-0.5	Soil	160g Clay, Sand, Soil, Rocks	16 Dec 2019	No Asbestos Found	<0.01
SE201451.013	BH9a_0.5-0.7	Soil	423g Clay, Sand, Rocks	17 Dec 2019	Chrysotile & Crocidolite Asbestos Found	>0.01
SE201451.014	BH10_0.3-0.4	Soil	195g Sand	17 Dec 2019	No Asbestos Found	<0.01
SE201451.016	BH12_0.3-0.4	Soil	180g Sand	17 Dec 2019	No Asbestos Found	<0.01
SE201451.018	BH14_0.4-0.5	Soil	163g Clay, Sand, Soil, Rocks	18 Dec 2019	No Asbestos Found	<0.01
SE201451.020	BH15_0.4-0.5	Soil	343g Clay, Sand, Soil, Rocks	18 Dec 2019	No Asbestos Found	<0.01
SE201451.022	BH16_0.4-0.5	Soil	429g Clay, Sand, Rocks	18 Dec 2019	No Asbestos Found	<0.01
SE201451.023	BH17_0.4-0.5	Soil	184g Sand, Soil, Rocks	18 Dec 2019	No Asbestos Found	<0.01

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
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AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

FOOTNOTES

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

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

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.pv.sgsvr/en-gb/environment.

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ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

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Project	**E24470 40-76 William St, Leichardt NSW**
Order Number	**E24470**
Samples	28

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
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SGS Reference	**SE201451A R0**
Date Received	10/1/2020
Date Reported	17/1/2020

COMMENTS

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

SIGNATORIES

Dong LIANG
Metals/Inorganics Team Leader

TCLP (Toxicity Characteristic Leaching Procedure) for Organics/SVOC [AN006] Tested: 16/1/2020

PARAMETER	UOM	LOR	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451A.007	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451A.009	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451A.018
pH 1:20	pH Units	-	**4.1**	**5.7**	**7.5**
pH 1:20 plus HCL	pH Units	-	**1.5**	**1.5**	**1.6**
Extraction Solution Used	No unit	-	**1**	**1**	**1**
Mass of Sample Used*	g	-	**25**	**25**	**25**
Volume of ExtractionSolution Used*	mL	-	**500**	**500**	**500**
pH TCLP after 18 hours	pH Units	-	**4.9**	**5.0**	**5.3**

PAH (Polynuclear Aromatic Hydrocarbons) in TCLP Extract [AN420] Tested: 13/1/2020

PARAMETER	UOM	LOR	BH4M_2.0-2.1 SOIL - 18/12/2019 SE201451A.007	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451A.009	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451A.018
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	<0.1

TCLP (Toxicity Characteristic Leaching Procedure) for Metals [AN006] Tested: 16/1/2020

PARAMETER	UOM	LOR	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451A.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451A.020
pH 1:20	pH Units	-	**7.1**	**7.0**
pH 1:20 plus HCL	pH Units	-	**1.5**	**1.5**
Extraction Solution Used	No unit	-	**1**	**1**
Mass of Sample Used*	g	-	**13**	**13**
Volume of ExtractionSolution Used*	mL	-	**250**	**250**
pH TCLP after 18 hours	pH Units	-	**5.0**	**5.0**

Metals in TCLP Extract by ICPOES [AN320] Tested: 17/1/2020

PARAMETER	UOM	LOR	BH14_0.4-0.5 SOIL - 18/12/2019 SE201451A.018	BH14_0.9-1.0 SOIL - 18/12/2019 SE201451A.019	BH15_0.4-0.5 SOIL - 18/12/2019 SE201451A.020
Lead, Pb	mg/L	0.02	**0.03**	**0.06**	**7.8**

Mercury in TCLP Extract [AN311(Perth) /AN312] Tested: 17/1/2020

PARAMETER	UOM	LOR	BH6M_0.4-0.5 SOIL - 16/12/2019 SE201451A.009
Mercury	mg/L	0.0001	<0.0001

METHOD	METHODOLOGY SUMMARY
AN006	Contaminants of interest in a waste material are leached out of the waste with a selected leaching solution under controlled conditions. The ratio of sample to extraction fluid is 100g to 2L (1 to 20 by mass). The concentration of each contaminant of interest is determined in the leachate by appropriate methods after separation from the sample by filtering. Base on USEPA 1311.
AN006	Extraction Fluid #1: This fluid is made by combining 128.6mL of dilute sodium hydroxide solution and 11.5mL glacial acetic acid with water and diluting to a volume of 2 litres. The pH of this fluid should be 4.93 ± 0.05.
AN006	Extraction Fluid #2: This fluid is made by diluting 5.7mL glacial acetic acid with water to a volume of 1 litre. The pH of this fluid should be 2.88 ± 0.05.
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN311(Perth) /AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN320	Metals by ICP-OES: Samples are preserved with 10% nitric acid for a wide range of metals and some non-metals. This solution is measured by Inductively Coupled Plasma. Solutions are aspirated into an argon plasma at 8000-10000K and emit characteristic energy or light as a result of electron transitions through unique energy levels. The emitted light is focused onto a diffraction grating where it is separated into components .
AN320	Photomultipliers or CCDs are used to measure the light intensity at specific wavelengths. This intensity is directly proportional to concentration. Corrections are required to compensate for spectral overlap between elements . Reference APHA 3120 B.
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).

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	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.

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ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

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Project	**E24470 40-76 William St Leichhardt NSW**
Order Number	**E24470**
Samples	8

LABORATORY DETAILS

Manager	Huong Crawford
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Email	au.environmental.sydney@sgs.com
SGS Reference	**SE201694 R1**
Date Received	10/1/2020
Date Reported	22/1/2020

COMMENTS

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

This report cancels and supersedes the report No.SE201694 R0. dated 22/01/20 issued by SGS Environment, Health and Safety due to amended PAH results on the DQO due to system error.

SIGNATORIES

Dong LIANG
Metals/Inorganics Team Leader

Ly Kim HA
Organic Section Head

Shane MCDERMOTT
Inorganic/Metals Chemist

VOCs in Water [AN433] Tested: 14/1/2020

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004	GWQD1 WATER - 10/1/2020 SE201694.005
Benzene	µg/L	0.5	<0.5	<0.5	**0.6**	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	**5.2**	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	**0.6**	<0.5
m/p-xylene	µg/L	1	<1	<1	<1	**2**	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5	**1.2**	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5	**3.3**	<1.5
Total BTEX	µg/L	3	<3	<3	<3	**9**	<3
Naphthalene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	<5	<5	-
Chloromethane	µg/L	5	<5	<5	<5	<5	-
Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	<0.3	<0.3	-
Bromomethane	µg/L	10	<10	<10	<10	<10	-
Chloroethane	µg/L	5	<5	<5	<5	<5	-
Trichlorofluoromethane	µg/L	1	<1	<1	<1	<1	-
Acetone (2-propanone)	µg/L	10	<10	<10	<10	<10	-
Iodomethane	µg/L	5	<5	<5	<5	<5	-
1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Acrylonitrile	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	<5	<5	-
Allyl chloride	µg/L	2	<2	<2	<2	<2	-
Carbon disulfide	µg/L	2	<2	<2	<2	<2	-
trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<2	<2	<2	-
1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Vinyl acetate	µg/L	10	<10	<10	<10	<10	-
MEK (2-butanone)	µg/L	10	<10	<10	<10	<10	-
cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromochloromethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Chloroform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dibromomethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-nitropropane	µg/L	100	<100	<100	<100	<100	-
Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	<5	<5	-
cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-hexanone (MBK)	µg/L	5	<5	<5	<5	<5	-
1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Chlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromoform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	<1	-
Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,3-trichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	<1	-

VOCs in Water [AN433] Tested: 14/1/2020 (continued)

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004	GWQD1 WATER - 10/1/2020 SE201694.005
Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Bromobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
n-propylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
2-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
4-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
tert-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
sec-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	<0.3	<0.3	-
p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
n-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	-
Total VOC	µg/L	10	<10	<10	<10	<10	-

VOCs in Water [AN433] Tested: 14/1/2020 (continued)

PARAMETER	UOM	LOR	GWQR1 WATER - 10/1/2020 SE201694.006	GWQTS1 WATER - 10/1/2020 SE201694.007	GWQTB1 WATER - 10/1/2020 SE201694.008
Benzene	µg/L	0.5	<0.5	[107%]	<0.5
Toluene	µg/L	0.5	<0.5	[96%]	<0.5
Ethylbenzene	µg/L	0.5	<0.5	[83%]	<0.5
m/p-xylene	µg/L	1	<1	[84%]	<1
o-xylene	µg/L	0.5	<0.5	[83%]	<0.5
Total Xylenes	µg/L	1.5	<1.5	-	<1.5
Total BTEX	µg/L	3	<3	-	<3
Naphthalene	µg/L	0.5	<0.5	-	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	-	-	-
Chloromethane	µg/L	5	-	-	-
Vinyl chloride (Chloroethene)	µg/L	0.3	-	-	-
Bromomethane	µg/L	10	-	-	-
Chloroethane	µg/L	5	-	-	-
Trichlorofluoromethane	µg/L	1	-	-	-
Acetone (2-propanone)	µg/L	10	-	-	-
Iodomethane	µg/L	5	-	-	-
1,1-dichloroethene	µg/L	0.5	-	-	-
Acrylonitrile	µg/L	0.5	-	-	-
Dichloromethane (Methylene chloride)	µg/L	5	-	-	-
Allyl chloride	µg/L	2	-	-	-
Carbon disulfide	µg/L	2	-	-	-
trans-1,2-dichloroethene	µg/L	0.5	-	-	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	-	-	-
1,1-dichloroethane	µg/L	0.5	-	-	-
Vinyl acetate	µg/L	10	-	-	-
MEK (2-butanone)	µg/L	10	-	-	-
cis-1,2-dichloroethene	µg/L	0.5	-	-	-
Bromochloromethane	µg/L	0.5	-	-	-
Chloroform (THM)	µg/L	0.5	-	-	-
2,2-dichloropropane	µg/L	0.5	-	-	-
1,2-dichloroethane	µg/L	0.5	-	-	-
1,1,1-trichloroethane	µg/L	0.5	-	-	-
1,1-dichloropropene	µg/L	0.5	-	-	-
Carbon tetrachloride	µg/L	0.5	-	-	-
Dibromomethane	µg/L	0.5	-	-	-
1,2-dichloropropane	µg/L	0.5	-	-	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	-	-	-
2-nitropropane	µg/L	100	-	-	-
Bromodichloromethane (THM)	µg/L	0.5	-	-	-
MIBK (4-methyl-2-pentanone)	µg/L	5	-	-	-
cis-1,3-dichloropropene	µg/L	0.5	-	-	-
trans-1,3-dichloropropene	µg/L	0.5	-	-	-
1,1,2-trichloroethane	µg/L	0.5	-	-	-
1,3-dichloropropane	µg/L	0.5	-	-	-
Dibromochloromethane (THM)	µg/L	0.5	-	-	-
2-hexanone (MBK)	µg/L	5	-	-	-
1,2-dibromoethane (EDB)	µg/L	0.5	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	-	-	-
1,1,1,2-tetrachloroethane	µg/L	0.5	-	-	-
Chlorobenzene	µg/L	0.5	-	-	-
Bromoform (THM)	µg/L	0.5	-	-	-
cis-1,4-dichloro-2-butene	µg/L	1	-	-	-
Styrene (Vinyl benzene)	µg/L	0.5	-	-	-
1,1,2,2-tetrachloroethane	µg/L	0.5	-	-	-
1,2,3-trichloropropane	µg/L	0.5	-	-	-
trans-1,4-dichloro-2-butene	µg/L	1	-	-	-

VOCs in Water [AN433] Tested: 14/1/2020 (continued)

PARAMETER	UOM	LOR	GWQR1 WATER - 10/1/2020 SE201694.006	GWQTS1 WATER - 10/1/2020 SE201694.007	GWQTB1 WATER - 10/1/2020 SE201694.008
Isopropylbenzene (Cumene)	µg/L	0.5	-	-	-
Bromobenzene	µg/L	0.5	-	-	-
n-propylbenzene	µg/L	0.5	-	-	-
2-chlorotoluene	µg/L	0.5	-	-	-
4-chlorotoluene	µg/L	0.5	-	-	-
1,3,5-trimethylbenzene	µg/L	0.5	-	-	-
tert-butylbenzene	µg/L	0.5	-	-	-
1,2,4-trimethylbenzene	µg/L	0.5	-	-	-
sec-butylbenzene	µg/L	0.5	-	-	-
1,3-dichlorobenzene	µg/L	0.5	-	-	-
1,4-dichlorobenzene	µg/L	0.3	-	-	-
p-isopropyltoluene	µg/L	0.5	-	-	-
1,2-dichlorobenzene	µg/L	0.5	-	-	-
n-butylbenzene	µg/L	0.5	-	-	-
1,2-dibromo-3-chloropropane	µg/L	0.5	-	-	-
1,2,4-trichlorobenzene	µg/L	0.5	-	-	-
Hexachlorobutadiene	µg/L	0.5	-	-	-
1,2,3-trichlorobenzene	µg/L	0.5	-	-	-
Total VOC	µg/L	10	-	-	-

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 14/1/2020

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004	GWQD1 WATER - 10/1/2020 SE201694.005
TRH C6-C9	µg/L	40	<40	<40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	**0.6**	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50	<50	<50

PARAMETER	UOM	LOR	GWQR1 WATER - 10/1/2020 SE201694.006
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 13/1/2020

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004	GWQD1 WATER - 10/1/2020 SE201694.005
TRH C10-C14	µg/L	50	**780**	<50	**260**	**48000**	<50
TRH C15-C28	µg/L	200	**380**	<200	**2900**	**12000**	<200
TRH C29-C36	µg/L	200	**310**	<200	**3000**	**2300**	<200
TRH C37-C40	µg/L	200	<200	<200	**800**	**740**	<200
TRH >C10-C16	µg/L	60	**910**	<60	**330**	**57000**	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	**910**	<60	**330**	**57000**	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	**4600**	**4800**	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	**2000**	**1800**	<500
TRH C10-C40	µg/L	320	**1500**	<320	**7000**	**64000**	<320

PARAMETER	UOM	LOR	GWQR1 WATER - 10/1/2020 SE201694.006
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
TRH >C10-C16	µg/L	60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 13/1/2020

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004
Naphthalene	µg/L	0.1	<0.1	<0.1	**1.3**	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	**0.5**	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	**0.6**	<0.1
Acenaphthylene	µg/L	0.1	<0.1	<0.1	**14**	<0.1
Acenaphthene	µg/L	0.1	<0.1	<0.1	**2.8**	<0.1
Fluorene	µg/L	0.1	<0.1	<0.1	**7.3**	<0.1
Phenanthrene	µg/L	0.1	<0.1	<0.1	**34**	<0.1
Anthracene	µg/L	0.1	<0.1	<0.1	**18**	<0.1
Fluoranthene	µg/L	0.1	<0.1	<0.1	**130**	<0.1
Pyrene	µg/L	0.1	<0.1	<0.1	**120**	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	**48**	<0.1
Chrysene	µg/L	0.1	<0.1	<0.1	**38**	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	**50**	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	**25**	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	**56**	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	**39**	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	**7.0**	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	**39**	<0.1
Total PAH (18)	µg/L	1	<1	<1	**640**	<1

Total Phenolics in Water [AN289] Tested: 15/1/2020

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004
Total Phenols	mg/L	0.01	<0.01	**0.02**	**0.03**	**0.02**

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 14/1/2020

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004	GWQD1 WATER - 10/1/2020 SE201694.005
Arsenic, As	µg/L	1	<1	2	2	1	2
Cadmium, Cd	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium, Cr	µg/L	1	<1	1	<1	<1	1
Copper, Cu	µg/L	1	<1	<1	1	<1	<1
Lead, Pb	µg/L	1	<1	<1	<1	<1	<1
Nickel, Ni	µg/L	1	5	8	3	7	7
Zinc, Zn	µg/L	5	14	50	9	43	50

PARAMETER	UOM	LOR	GWQR1 WATER - 10/1/2020 SE201694.006
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	<1
Lead, Pb	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Zinc, Zn	µg/L	5	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 14/1/2020

PARAMETER	UOM	LOR	BH1M-1 WATER - 10/1/2020 SE201694.001	BH3M-1 WATER - 10/1/2020 SE201694.002	BH4M-1 WATER - 10/1/2020 SE201694.003	BH9M-1 WATER - 10/1/2020 SE201694.004	GWQD1 WATER - 10/1/2020 SE201694.005
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

PARAMETER	UOM	LOR	GWQR1 WATER - 10/1/2020 SE201694.006
Mercury	mg/L	0.0001	<0.0001

METHOD	METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN289	Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique, in accordance with USEPA 6020A.
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.
AN403	Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoveerable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
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).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	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.pv.sgsvr/en-gb/environment.

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ANALYTICAL REPORT

Accreditation No. 2562

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Order Number	**E24470**
Samples	2

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SGS Reference	**SE223412 R0**
Date Received	3/9/2021
Date Reported	14/9/2021

COMMENTS

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

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

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Benzene	µg/L	0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3
Naphthalene	µg/L	0.5	<0.5	<0.5

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

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
TRH C6-C9	µg/L	40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 13/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
TRH C10-C14	µg/L	50	<50	<50
TRH C15-C28	µg/L	200	<200	<200
TRH C29-C36	µg/L	200	<200	<200
TRH C37-C40	µg/L	200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500
TRH C10-C40	µg/L	320	<320	<320

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 13/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Naphthalene	µg/L	0.1	<0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1
Acenaphthylene	µg/L	0.1	<0.1	<0.1
Acenaphthene	µg/L	0.1	<0.1	<0.1
Fluorene	µg/L	0.1	<0.1	<0.1
Phenanthrene	µg/L	0.1	<0.1	<0.1
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(b&j&k)fluoranthene	µg/L	0.2	<0.2	<0.2
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	<1	<1

pH in water [AN101] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
pH**	pH Units	0.1	**4.3**	**5.1**

Conductivity and TDS by Calculation - Water [AN106] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Conductivity @ 25 C	µS/cm	2	**450**	**270**

Total Dissolved Solids (TDS) in water [AN113] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Total Dissolved Solids Dried at 175-185°C	mg/L	10	**380**	**270**

Turbidity [AN119] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Turbidity	NTU	0.5	**89**	**340**

Total Cyanide in water by Discrete Analyser (Aquakem) [AN077/AN287] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Total Cyanide	mg/L	0.004	<0.004	<0.004

Metals in Water (Dissolved) by ICPOES [AN320] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Calcium, Ca	mg/L	0.2	**0.9**	**13**
Magnesium, Mg	mg/L	0.1	**6.6**	**4.2**
Total Hardness by Calculation	mg CaCO3/L	1	**30**	**50**

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Aluminium, Al	µg/L	5	**49**	**66**
Arsenic, As	µg/L	1	<1	<1
Cadmium, Cd	µg/L	0.1	<0.1	<0.1
Chromium, Cr	µg/L	1	<1	<1
Copper, Cu	µg/L	1	<1	**2**
Lead, Pb	µg/L	1	<1	<1
Nickel, Ni	µg/L	1	**5**	**2**
Zinc, Zn	µg/L	5	**24**	**37**

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 10/9/2021

PARAMETER	UOM	LOR	BH3M-1 WATER - 3/9/2021 SE223412.001	BH9M-1 WATER - 3/9/2021 SE223412.002
Mercury	mg/L	0.0001	<0.0001	<0.0001

METHOD	METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN077	Hydrogen cyanide is liberated from an acidified sample by distillation and purging with air. The hydrogen cyanide gas is then collected by passing it through a sodium hydroxide scrubbing solution. The scrubbing solution will then be analysed for cyanide by the appropriate method.
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.
AN113	Total Dissolved Solids: A well-mixed filtered sample of known volume is evaporated to dryness at 180°C and the residue weighed. Approximate methods for correlating chemical analysis with dissolved solids are available . Reference APHA 2540 C.
AN113	The Total Dissolved Solids residue may also be ignited at 550 C and volatile TDS (Organic TDS) and non-volatile TDS (Inorganic) can be determined.
AN119	Turbidity by Nepholometry: Small particles in a light beam scatter light at a range of angles. A turbidimeter measures this scatter and reports results compared to turbidity standards, in NTU. This procedure is not suitable for very dark coloured liquids or samples with high solids because light absorption causes artificially low light scatter and low turbidity. Reference APHA 2130B.
AN287	A buffered distillate or water sample is treated with chloramine/barbituric acid reagents and the intensity of the colour developed is proportional to the cyanide concentration by Aquakem DA .
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
AN320	Metals by ICP-OES: Samples are preserved with 10% nitric acid for a wide range of metals and some non-metals. This solution is measured by Inductively Coupled Plasma. Solutions are aspirated into an argon plasma at 8000-10000K and emit characteristic energy or light as a result of electron transitions through unique energy levels. The emitted light is focused onto a diffraction grating where it is separated into components .
AN320	Photomultipliers or CCDs are used to measure the light intensity at specific wavelengths. This intensity is directly proportional to concentration. Corrections are required to compensate for spectral overlap between elements . Reference APHA 3120 B.
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.
AN403	Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoveerable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
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).

AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

FOOTNOTES

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

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

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

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

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

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

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.

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

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STATEMENT OF QA/QC PERFORMANCE

SE223412 R0

CLIENT DETAILS

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Project	**E24470 40-76 William St, Leichhardt NSW**
Order Number	**E24470**
Samples	2

LABORATORY DETAILS

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SGS Reference	**SE223412 R0**
Date Received	03 Sep 2021
Date Reported	14 Sep 2021

COMMENTS

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

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

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

Extraction Date	PAH (Polynuclear Aromatic Hydrocarbons) in Water	2 items
	pH in water	2 items
	TRH (Total Recoverable Hydrocarbons) in Water	2 items
	Turbidity	2 items
Analysis Date	pH in water	2 items
	Total Dissolved Solids (TDS) in water	2 items
	Turbidity	2 items
Surrogate	PAH (Polynuclear Aromatic Hydrocarbons) in Water	1 item

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE223412 R0

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

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

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

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
BH3M-1	SE223412.001	LB232380	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021
BH9M-1	SE223412.002	LB232380	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021

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
BH3M-1	SE223412.001	LB232378	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021
BH9M-1	SE223412.002	LB232378	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021

Metals in Water (Dissolved) by ICPOES

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232377	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021
BH9M-1	SE223412.002	LB232377	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021

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
BH3M-1	SE223412.001	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	13 Sep 2021
BH9M-1	SE223412.002	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	14 Sep 2021

pH in water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232380	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†
BH9M-1	SE223412.002	LB232380	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232405	03 Sep 2021	03 Sep 2021	17 Sep 2021	10 Sep 2021	17 Sep 2021	10 Sep 2021
BH9M-1	SE223412.002	LB232405	03 Sep 2021	03 Sep 2021	17 Sep 2021	10 Sep 2021	17 Sep 2021	10 Sep 2021

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232382	03 Sep 2021	03 Sep 2021	10 Sep 2021	10 Sep 2021	10 Sep 2021	13 Sep 2021†
BH9M-1	SE223412.002	LB232382	03 Sep 2021	03 Sep 2021	10 Sep 2021	10 Sep 2021	10 Sep 2021	13 Sep 2021†

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232398	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021
BH9M-1	SE223412.002	LB232398	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	14 Sep 2021
BH9M-1	SE223412.002	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	14 Sep 2021

Turbidity

Method: ME-(AU)-[ENV]AN119

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232408	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†
BH9M-1	SE223412.002	LB232408	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†

VOCs in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021
BH9M-1	SE223412.002	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021

Volatile Petroleum Hydrocarbons in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021
BH9M-1	SE223412.002	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	42
	BH9M-1	SE223412.002	%	40 - 130%	50
d14-p-terphenyl (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	50
	BH9M-1	SE223412.002	%	40 - 130%	62
d5-nitrobenzene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	32 ⓘ
	BH9M-1	SE223412.002	%	40 - 130%	40

VOCs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	99
d4-1,2-dichloroethane (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	104
	BH9M-1	SE223412.002	%	40 - 130%	106
d8-toluene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	101

Volatile Petroleum Hydrocarbons in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	99
d4-1,2-dichloroethane (Surrogate)	BH3M-1	SE223412.001	%	60 - 130%	104
	BH9M-1	SE223412.002	%	60 - 130%	106
d8-toluene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	101

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
LB232380.001	Conductivity @ 25 C	µS/cm	2	<2

Mercury (dissolved) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB232378.001	Mercury	mg/L	0.0001	<0.0001

Metals in Water (Dissolved) by ICPOES

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

Sample Number	Parameter	Units	LOR	Result
LB232377.001	Calcium, Ca	mg/L	0.2	<0.2
	Magnesium, Mg	mg/L	0.1	<0.1

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result
LB232486.001		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(b&j&k)fluoranthene	µg/L	0.2	<0.2
		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)	%	-	54
		2-fluorobiphenyl (Surrogate)	%	-	56
		d14-p-terphenyl (Surrogate)	%	-	66

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

Sample Number	Parameter	Units	LOR	Result
LB232405.001	Total Cyanide	mg/L	0.004	<0.004

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Sample Number	Parameter	Units	LOR	Result
LB232382.001	Total Dissolved Solids Dried at 175-185°C	mg/L	10	<10

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Number	Parameter	Units	LOR	Result
LB232398.001	Aluminium, Al	µg/L	5	<5
	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR

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.

TRH (Total Recoverable Hydrocarbons) in Water (continued)

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

Sample Number	Parameter	Units	LOR	Result
LB232486.001	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

Turbidity

Method: ME-(AU)-[ENV]AN119

Sample Number	Parameter	Units	LOR	Result
LB232408.001	Turbidity	NTU	0.5	<0.5

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result
LB232346.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	97
		Bromofluorobenzene (Surrogate)	%	-	87

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result
LB232346.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	97
		Bromofluorobenzene (Surrogate)	%	-	87

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

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

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

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

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

Conductivity and TDS by Calculation - Water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223392.007	LB232380.018	Conductivity @ 25 C	µS/cm	2	1700	1700	15	1

Metals in Water (Dissolved) by ICPOES

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223392.005	LB232377.014	Calcium, Ca	mg/L	0.2	250	240	15	1
		Magnesium, Mg	mg/L	0.1	240	240	15	0
SE223421.002	LB232377.021	Calcium, Ca	mg/L	0.2	29	29	16	0
		Magnesium, Mg	mg/L	0.1	2.3	2.3	19	0

pH in water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223392.007	LB232380.018	pH**	pH Units	0.1	7.7	7.6	16	1

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223374.003	LB232382.010	Total Dissolved Solids Dried at 175-185°C	mg/L	10	26000	26000	15	1

Trace Metals (Dissolved) in Water by ICPMS

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223393.001	LB232398.014	Aluminium, Al	µg/L	5	30	30	32	0
		Copper, Cu	µg/L	1	6	7	30	4
		Lead, Pb	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	100	97	20	6

Turbidity

Method: ME-(AU)-[ENV]AN119

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223421.002	LB232408.009	Turbidity	NTU	0.5	520	520	15	0

VOCs in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223412.001	LB232346.023	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			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	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	2
			d8-toluene (Surrogate)	µg/L	-	10	9.8	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	4
SE223421.002	LB232346.024	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			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	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11	10	30	1
			d8-toluene (Surrogate)	µg/L	-	10	9.7	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	3

Volatile Petroleum Hydrocarbons in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223412.001	LB232346.023		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	2
			d8-toluene (Surrogate)	µg/L	-	10	9.8	30	3

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

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223412.001	LB232346.023	Surrogates	Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	4
		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
SE223421.002	LB232346.024		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	-	11	10	30	1
			d8-toluene (Surrogate)	µg/L	-	10	9.7	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	3
		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

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]AN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232380.002	Conductivity @ 25 C	µS/cm	2	300	303	90 - 110	99

Metals in Water (Dissolved) by ICPOES

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232377.002	Calcium, Ca	mg/L	0.2	49	50.5	80 - 120	98
	Magnesium, Mg	mg/L	0.1	48	50.5	80 - 120	95

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232486.002		Naphthalene	µg/L	0.1	29	40	60 - 140	74
		Acenaphthylene	µg/L	0.1	33	40	60 - 140	83
		Acenaphthene	µg/L	0.1	33	40	60 - 140	82
		Phenanthrene	µg/L	0.1	33	40	60 - 140	83
		Anthracene	µg/L	0.1	33	40	60 - 140	82
		Fluoranthene	µg/L	0.1	34	40	60 - 140	84
		Pyrene	µg/L	0.1	35	40	60 - 140	88
		Benzo(a)pyrene	µg/L	0.1	36	40	60 - 140	89
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.28	0.5	40 - 130	56
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.31	0.5	40 - 130	62
		d14-p-terphenyl (Surrogate)	µg/L	-	0.34	0.5	40 - 130	68

pH in water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232380.003	pH**	pH Units	0.1	7.4	7.415	98 - 102	100

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232405.002	Total Cyanide	mg/L	0.004	0.023	0.025	80 - 120	92

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232382.002	Total Dissolved Solids Dried at 175-185°C	mg/L	10	250	293	81 - 119	86

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232398.002	Aluminium, Al	µg/L	5	20	20	80 - 120	98
	Arsenic, As	µg/L	1	19	20	80 - 120	94
	Cadmium, Cd	µg/L	0.1	19	20	80 - 120	96
	Chromium, Cr	µg/L	1	20	20	80 - 120	101
	Copper, Cu	µg/L	1	20	20	80 - 120	100
	Lead, Pb	µg/L	1	18	20	80 - 120	92
	Nickel, Ni	µg/L	1	20	20	80 - 120	98
	Zinc, Zn	µg/L	5	20	20	80 - 120	99

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232486.002		TRH C10-C14	µg/L	50	970	1200	60 - 140	81
		TRH C15-C28	µg/L	200	1200	1200	60 - 140	97
		TRH C29-C36	µg/L	200	1200	1200	60 - 140	102
	TRH F Bands	TRH >C10-C16	µg/L	60	1100	1200	60 - 140	88
		TRH >C16-C34 (F3)	µg/L	500	1300	1200	60 - 140	105
		TRH >C34-C40 (F4)	µg/L	500	600	600	60 - 140	100

VOCs in Water

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

Sample Number	Parameter	Units	LOR

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.

VOCs in Water (continued)

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232346.002	Monocyclic	Benzene	µg/L	0.5	48	45.45	60 - 140	106
	Aromatic	Toluene	µg/L	0.5	49	45.45	60 - 140	107
		Ethylbenzene	µg/L	0.5	49	45.45	60 - 140	107
		m/p-xylene	µg/L	1	98	90.9	60 - 140	108
		o-xylene	µg/L	0.5	49	45.45	60 - 140	107
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	60 - 140	103
		d8-toluene (Surrogate)	µg/L	-	9.7	10	70 - 130	97
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130	97

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232346.002		TRH C6-C10	µg/L	50	930	946.63	60 - 140	98
		TRH C6-C9	µg/L	40	570	818.71	60 - 140	70
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	60 - 140	103
		d8-toluene (Surrogate)	µg/L	-	9.7	10	70 - 130	97
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130	97
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	640	639.67	60 - 140	100

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

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

Mercury (dissolved) in Water

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE223382.019	LB232378.004	Mercury	mg/L	0.0001	0.0019	0.00424	0.008	93

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE223412.002	LB232405.006	Total Cyanide	mg/L	0.004	0.026	<0.004	0.025	103

VOCs in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE223328.037	LB232346.025	Monocyclic Aromatic	Benzene	µg/L	0.5	0	45.45	118
			Toluene	µg/L	0.5	0.12041798324	45.45	117
			Ethylbenzene	µg/L	0.5	0.00861738804	45.45	117
			m/p-xylene	µg/L	1	0.02447036590	90.9	118
			o-xylene	µg/L	0.5	0.00713042882	45.45	119
		Polycyclic	Naphthalene	µg/L	0.5	0.01124002275	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0689979568(	-	105
			d8-toluene (Surrogate)	µg/L	-	9.91880402214	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.32670039043	-	100

Volatile Petroleum Hydrocarbons in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE223328.037	LB232346.025		TRH C6-C10	µg/L	50	0	946.63	78
			TRH C6-C9	µg/L	40	0	818.71	79
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0689979568(	-	105
			d8-toluene (Surrogate)	µg/L	-	9.91880402214	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.32670039043	-	100
		VPH F Bands	Benzene (F0)	µg/L	0.5	0	-	-
			TRH C6-C10 minus BTEX (F1)	µg/L	50	0	639.67	65

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

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

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

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

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: 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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Appendix K – Laboratory QA/QC Policies and DQOs

STATEMENT OF QA/QC PERFORMANCE

SE223412 R0

CLIENT DETAILS

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Order Number	**E24470**
Samples	2

LABORATORY DETAILS

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SGS Reference	**SE223412 R0**
Date Received	03 Sep 2021
Date Reported	14 Sep 2021

COMMENTS

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

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

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

Extraction Date	PAH (Polynuclear Aromatic Hydrocarbons) in Water	2 items
	pH in water	2 items
	TRH (Total Recoverable Hydrocarbons) in Water	2 items
	Turbidity	2 items
Analysis Date	pH in water	2 items
	Total Dissolved Solids (TDS) in water	2 items
	Turbidity	2 items
Surrogate	PAH (Polynuclear Aromatic Hydrocarbons) in Water	1 item

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE223412 R0

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

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

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

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
BH3M-1	SE223412.001	LB232380	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021
BH9M-1	SE223412.002	LB232380	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021

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
BH3M-1	SE223412.001	LB232378	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021
BH9M-1	SE223412.002	LB232378	03 Sep 2021	03 Sep 2021	01 Oct 2021	10 Sep 2021	01 Oct 2021	10 Sep 2021

Metals in Water (Dissolved) by ICPOES

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232377	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021
BH9M-1	SE223412.002	LB232377	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021

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
BH3M-1	SE223412.001	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	13 Sep 2021
BH9M-1	SE223412.002	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	14 Sep 2021

pH in water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232380	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†
BH9M-1	SE223412.002	LB232380	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232405	03 Sep 2021	03 Sep 2021	17 Sep 2021	10 Sep 2021	17 Sep 2021	10 Sep 2021
BH9M-1	SE223412.002	LB232405	03 Sep 2021	03 Sep 2021	17 Sep 2021	10 Sep 2021	17 Sep 2021	10 Sep 2021

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232382	03 Sep 2021	03 Sep 2021	10 Sep 2021	10 Sep 2021	10 Sep 2021	13 Sep 2021†
BH9M-1	SE223412.002	LB232382	03 Sep 2021	03 Sep 2021	10 Sep 2021	10 Sep 2021	10 Sep 2021	13 Sep 2021†

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232398	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021
BH9M-1	SE223412.002	LB232398	03 Sep 2021	03 Sep 2021	02 Mar 2022	10 Sep 2021	02 Mar 2022	10 Sep 2021

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	14 Sep 2021
BH9M-1	SE223412.002	LB232486	03 Sep 2021	03 Sep 2021	10 Sep 2021	13 Sep 2021†	23 Oct 2021	14 Sep 2021

Turbidity

Method: ME-(AU)-[ENV]AN119

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232408	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†
BH9M-1	SE223412.002	LB232408	03 Sep 2021	03 Sep 2021	04 Sep 2021	10 Sep 2021†	04 Sep 2021	10 Sep 2021†

VOCs in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021
BH9M-1	SE223412.002	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021

Volatile Petroleum Hydrocarbons in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M-1	SE223412.001	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021
BH9M-1	SE223412.002	LB232346	03 Sep 2021	03 Sep 2021	10 Sep 2021	09 Sep 2021	23 Sep 2021	13 Sep 2021

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	42
	BH9M-1	SE223412.002	%	40 - 130%	50
d14-p-terphenyl (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	50
	BH9M-1	SE223412.002	%	40 - 130%	62
d5-nitrobenzene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	32 ⓘ
	BH9M-1	SE223412.002	%	40 - 130%	40

VOCs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	99
d4-1,2-dichloroethane (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	104
	BH9M-1	SE223412.002	%	40 - 130%	106
d8-toluene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	101

Volatile Petroleum Hydrocarbons in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	99
d4-1,2-dichloroethane (Surrogate)	BH3M-1	SE223412.001	%	60 - 130%	104
	BH9M-1	SE223412.002	%	60 - 130%	106
d8-toluene (Surrogate)	BH3M-1	SE223412.001	%	40 - 130%	100
	BH9M-1	SE223412.002	%	40 - 130%	101

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
LB232380.001	Conductivity @ 25 C	µS/cm	2	<2

Mercury (dissolved) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB232378.001	Mercury	mg/L	0.0001	<0.0001

Metals in Water (Dissolved) by ICPOES

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

Sample Number	Parameter	Units	LOR	Result
LB232377.001	Calcium, Ca	mg/L	0.2	<0.2
	Magnesium, Mg	mg/L	0.1	<0.1

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result
LB232486.001		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(b&j&k)fluoranthene	µg/L	0.2	<0.2
		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)	%	-	54
		2-fluorobiphenyl (Surrogate)	%	-	56
		d14-p-terphenyl (Surrogate)	%	-	66

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

Sample Number	Parameter	Units	LOR	Result
LB232405.001	Total Cyanide	mg/L	0.004	<0.004

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Sample Number	Parameter	Units	LOR	Result
LB232382.001	Total Dissolved Solids Dried at 175-185°C	mg/L	10	<10

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Number	Parameter	Units	LOR	Result
LB232398.001	Aluminium, Al	µg/L	5	<5
	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR

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.

TRH (Total Recoverable Hydrocarbons) in Water (continued)

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

Sample Number	Parameter	Units	LOR	Result
LB232486.001	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

Turbidity

Method: ME-(AU)-[ENV]AN119

Sample Number	Parameter	Units	LOR	Result
LB232408.001	Turbidity	NTU	0.5	<0.5

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result
LB232346.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	97
		Bromofluorobenzene (Surrogate)	%	-	87

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result
LB232346.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	97
		Bromofluorobenzene (Surrogate)	%	-	87

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

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

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

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

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

Conductivity and TDS by Calculation - Water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223392.007	LB232380.018	Conductivity @ 25 C	µS/cm	2	1700	1700	15	1

Metals in Water (Dissolved) by ICPOES

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223392.005	LB232377.014	Calcium, Ca	mg/L	0.2	250	240	15	1
		Magnesium, Mg	mg/L	0.1	240	240	15	0
SE223421.002	LB232377.021	Calcium, Ca	mg/L	0.2	29	29	16	0
		Magnesium, Mg	mg/L	0.1	2.3	2.3	19	0

pH in water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223392.007	LB232380.018	pH**	pH Units	0.1	7.7	7.6	16	1

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223374.003	LB232382.010	Total Dissolved Solids Dried at 175-185°C	mg/L	10	26000	26000	15	1

Trace Metals (Dissolved) in Water by ICPMS

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223393.001	LB232398.014	Aluminium, Al	µg/L	5	30	30	32	0
		Copper, Cu	µg/L	1	6	7	30	4
		Lead, Pb	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	100	97	20	6

Turbidity

Method: ME-(AU)-[ENV]AN119

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223421.002	LB232408.009	Turbidity	NTU	0.5	520	520	15	0

VOCs in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223412.001	LB232346.023	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			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	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	2
			d8-toluene (Surrogate)	µg/L	-	10	9.8	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	4
SE223421.002	LB232346.024	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			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	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11	10	30	1
			d8-toluene (Surrogate)	µg/L	-	10	9.7	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	3

Volatile Petroleum Hydrocarbons in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223412.001	LB232346.023		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	2
			d8-toluene (Surrogate)	µg/L	-	10	9.8	30	3

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

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223412.001	LB232346.023	Surrogates	Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	4
		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
SE223421.002	LB232346.024		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	-	11	10	30	1
			d8-toluene (Surrogate)	µg/L	-	10	9.7	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	3
		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

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]AN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232380.002	Conductivity @ 25 C	µS/cm	2	300	303	90 - 110	99

Metals in Water (Dissolved) by ICPOES

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232377.002	Calcium, Ca	mg/L	0.2	49	50.5	80 - 120	98
	Magnesium, Mg	mg/L	0.1	48	50.5	80 - 120	95

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232486.002		Naphthalene	µg/L	0.1	29	40	60 - 140	74
		Acenaphthylene	µg/L	0.1	33	40	60 - 140	83
		Acenaphthene	µg/L	0.1	33	40	60 - 140	82
		Phenanthrene	µg/L	0.1	33	40	60 - 140	83
		Anthracene	µg/L	0.1	33	40	60 - 140	82
		Fluoranthene	µg/L	0.1	34	40	60 - 140	84
		Pyrene	µg/L	0.1	35	40	60 - 140	88
		Benzo(a)pyrene	µg/L	0.1	36	40	60 - 140	89
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.28	0.5	40 - 130	56
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.31	0.5	40 - 130	62
		d14-p-terphenyl (Surrogate)	µg/L	-	0.34	0.5	40 - 130	68

pH in water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232380.003	pH**	pH Units	0.1	7.4	7.415	98 - 102	100

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232405.002	Total Cyanide	mg/L	0.004	0.023	0.025	80 - 120	92

Total Dissolved Solids (TDS) in water

Method: ME-(AU)-[ENV]AN113

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232382.002	Total Dissolved Solids Dried at 175-185°C	mg/L	10	250	293	81 - 119	86

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232398.002	Aluminium, Al	µg/L	5	20	20	80 - 120	98
	Arsenic, As	µg/L	1	19	20	80 - 120	94
	Cadmium, Cd	µg/L	0.1	19	20	80 - 120	96
	Chromium, Cr	µg/L	1	20	20	80 - 120	101
	Copper, Cu	µg/L	1	20	20	80 - 120	100
	Lead, Pb	µg/L	1	18	20	80 - 120	92
	Nickel, Ni	µg/L	1	20	20	80 - 120	98
	Zinc, Zn	µg/L	5	20	20	80 - 120	99

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232486.002		TRH C10-C14	µg/L	50	970	1200	60 - 140	81
		TRH C15-C28	µg/L	200	1200	1200	60 - 140	97
		TRH C29-C36	µg/L	200	1200	1200	60 - 140	102
	TRH F Bands	TRH >C10-C16	µg/L	60	1100	1200	60 - 140	88
		TRH >C16-C34 (F3)	µg/L	500	1300	1200	60 - 140	105
		TRH >C34-C40 (F4)	µg/L	500	600	600	60 - 140	100

VOCs in Water

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

Sample Number	Parameter	Units	LOR

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.

VOCs in Water (continued)

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232346.002	Monocyclic	Benzene	µg/L	0.5	48	45.45	60 - 140	106
	Aromatic	Toluene	µg/L	0.5	49	45.45	60 - 140	107
		Ethylbenzene	µg/L	0.5	49	45.45	60 - 140	107
		m/p-xylene	µg/L	1	98	90.9	60 - 140	108
		o-xylene	µg/L	0.5	49	45.45	60 - 140	107
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	60 - 140	103
		d8-toluene (Surrogate)	µg/L	-	9.7	10	70 - 130	97
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130	97

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB232346.002		TRH C6-C10	µg/L	50	930	946.63	60 - 140	98
		TRH C6-C9	µg/L	40	570	818.71	60 - 140	70
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	60 - 140	103
		d8-toluene (Surrogate)	µg/L	-	9.7	10	70 - 130	97
		Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10	70 - 130	97
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	640	639.67	60 - 140	100

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

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

Mercury (dissolved) in Water

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE223382.019	LB232378.004	Mercury	mg/L	0.0001	0.0019	0.00424	0.008	93

Total Cyanide in water by Discrete Analyser (Aquakem)

Method: ME-(AU)-[ENV]AN077/AN287

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE223412.002	LB232405.006	Total Cyanide	mg/L	0.004	0.026	<0.004	0.025	103

VOCs in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE223328.037	LB232346.025	Monocyclic Aromatic	Benzene	µg/L	0.5	0	45.45	118
			Toluene	µg/L	0.5	0.12041798324	45.45	117
			Ethylbenzene	µg/L	0.5	0.00861738804	45.45	117
			m/p-xylene	µg/L	1	0.02447036590	90.9	118
			o-xylene	µg/L	0.5	0.00713042882	45.45	119
		Polycyclic	Naphthalene	µg/L	0.5	0.01124002275	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0689979568(	-	105
			d8-toluene (Surrogate)	µg/L	-	9.91880402214	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.32670039043	-	100

Volatile Petroleum Hydrocarbons in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE223328.037	LB232346.025		TRH C6-C10	µg/L	50	0	946.63	78
			TRH C6-C9	µg/L	40	0	818.71	79
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0689979568(	-	105
			d8-toluene (Surrogate)	µg/L	-	9.91880402214	-	103
			Bromofluorobenzene (Surrogate)	µg/L	-	9.32670039043	-	100
		VPH F Bands	Benzene (F0)	µg/L	0.5	0	-	-
			TRH C6-C10 minus BTEX (F1)	µg/L	50	0	639.67	65

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

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

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

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

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: 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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STATEMENT OF QA/QC PERFORMANCE

SE201694RE R0

CLIENT DETAILS

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Project	**E24470 40-76 William St Leichhardt NSW**
Order Number	**E24470**
Samples	8

LABORATORY DETAILS

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SGS Reference	**SE201694RE R0**
Date Received	20 Jan 2020
Date Reported	21 Jan 2020

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:

Extraction Date	PAH (Polynuclear Aromatic Hydrocarbons) in Water	2 items
	TRH (Total Recoverable Hydrocarbons) in Water	2 items
	VOCs in Water	2 items
	Volatile Petroleum Hydrocarbons in Water	2 items

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	2 Water
Date documentation received	20/1/2020@10:13ar	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	4.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE201694RE R0

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

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH4M-1	SE201694RE.003	LB191513	10 Jan 2020	20 Jan 2020	17 Jan 2020	21 Jan 2020†	01 Mar 2020	21 Jan 2020
BH9M-1	SE201694RE.004	LB191513	10 Jan 2020	20 Jan 2020	17 Jan 2020	21 Jan 2020†	01 Mar 2020	21 Jan 2020

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH4M-1	SE201694RE.003	LB191513	10 Jan 2020	20 Jan 2020	17 Jan 2020	21 Jan 2020†	01 Mar 2020	21 Jan 2020
BH9M-1	SE201694RE.004	LB191513	10 Jan 2020	20 Jan 2020	17 Jan 2020	21 Jan 2020†	01 Mar 2020	21 Jan 2020

VOCs in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH4M-1	SE201694RE.003	LB191456	10 Jan 2020	20 Jan 2020	17 Jan 2020	20 Jan 2020†	29 Feb 2020	21 Jan 2020
BH9M-1	SE201694RE.004	LB191456	10 Jan 2020	20 Jan 2020	17 Jan 2020	20 Jan 2020†	29 Feb 2020	21 Jan 2020

Volatile Petroleum Hydrocarbons in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH4M-1	SE201694RE.003	LB191456	10 Jan 2020	20 Jan 2020	17 Jan 2020	20 Jan 2020†	29 Feb 2020	21 Jan 2020
BH9M-1	SE201694RE.004	LB191456	10 Jan 2020	20 Jan 2020	17 Jan 2020	20 Jan 2020†	29 Feb 2020	21 Jan 2020

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	58
	BH9M-1	SE201694RE.004	%	40 - 130%	86
d14-p-terphenyl (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	82
	BH9M-1	SE201694RE.004	%	40 - 130%	94
d5-nitrobenzene (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	54
	BH9M-1	SE201694RE.004	%	40 - 130%	66

VOCs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	93
	BH9M-1	SE201694RE.004	%	40 - 130%	101
d4-1,2-dichloroethane (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	96
	BH9M-1	SE201694RE.004	%	40 - 130%	98
d8-toluene (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	97
	BH9M-1	SE201694RE.004	%	40 - 130%	100

Volatile Petroleum Hydrocarbons in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	93
	BH9M-1	SE201694RE.004	%	40 - 130%	101
d4-1,2-dichloroethane (Surrogate)	BH4M-1	SE201694RE.003	%	60 - 130%	96
	BH9M-1	SE201694RE.004	%	60 - 130%	98
d8-toluene (Surrogate)	BH4M-1	SE201694RE.003	%	40 - 130%	97
	BH9M-1	SE201694RE.004	%	40 - 130%	100

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result
LB191513.001		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)	%	-	58
		2-fluorobiphenyl (Surrogate)	%	-	66
		d14-p-terphenyl (Surrogate)	%	-	86

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result
LB191513.001		TRH C10-C14	µg/L	50	<50
		TRH C15-C28	µg/L	200	<200
		TRH C29-C36	µg/L	200	<200
		TRH C37-C40	µg/L	200	<200

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result
LB191456.001	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5
		1,2-dichloropropane	µg/L	0.5	<0.5
		cis-1,3-dichloropropene	µg/L	0.5	<0.5
		trans-1,3-dichloropropene	µg/L	0.5	<0.5
		1,2-dibromoethane (EDB)	µg/L	0.5	<0.5
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5
		Chloromethane	µg/L	5	<5
		Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3
		Bromomethane	µg/L	10	<10
		Chloroethane	µg/L	5	<5
		Trichlorofluoromethane	µg/L	1	<1
		Iodomethane	µg/L	5	<5
		1,1-dichloroethene	µg/L	0.5	<0.5
		Dichloromethane (Methylene chloride)	µg/L	5	<5
		Allyl chloride	µg/L	2	<2
		trans-1,2-dichloroethene	µg/L	0.5	<0.5
		1,1-dichloroethane	µg/L	0.5	<0.5
		cis-1,2-dichloroethene	µg/L	0.5	<0.5
		Bromochloromethane	µg/L	0.5	<0.5
		1,2-dichloroethane	µg/L	0.5	<0.5
		1,1,1-trichloroethane	µg/L	0.5	<0.5
		1,1-dichloropropene	µg/L	0.5	<0.5
		Carbon tetrachloride	µg/L	0.5	<0.5
		Dibromomethane	µg/L	0.5	<0.5
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5
		1,1,2-trichloroethane	µg/L	0.5	<0.5
		1,3-dichloropropane	µg/L	0.5	<0.5
		Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5
		1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5
		cis-1,4-dichloro-2-butene	µg/L	1	<1
		1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5
		1,2,3-trichloropropane	µg/L	0.5	<0.5
		trans-1,4-dichloro-2-butene	µg/L	1	<1

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

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

VOCs in Water (continued)

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

Sample Number		Parameter	Units	LOR	Result
LB191456.001	Halogenated Aliphatics	1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5
		Hexachlorobutadiene	µg/L	0.5	<0.5
	Halogenated Aromatics	Chlorobenzene	µg/L	0.5	<0.5
		Bromobenzene	µg/L	0.5	<0.5
		2-chlorotoluene	µg/L	0.5	<0.5
		4-chlorotoluene	µg/L	0.5	<0.5
		1,3-dichlorobenzene	µg/L	0.5	<0.5
		1,4-dichlorobenzene	µg/L	0.3	<0.3
		1,2-dichlorobenzene	µg/L	0.5	<0.5
		1,2,4-trichlorobenzene	µg/L	0.5	<0.5
		1,2,3-trichlorobenzene	µg/L	0.5	<0.5
	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5
	Hydrocarbons	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
		Styrene (Vinyl benzene)	µg/L	0.5	<0.5
		Isopropylbenzene (Cumene)	µg/L	0.5	<0.5
		n-propylbenzene	µg/L	0.5	<0.5
		1,3,5-trimethylbenzene	µg/L	0.5	<0.5
		tert-butylbenzene	µg/L	0.5	<0.5
		1,2,4-trimethylbenzene	µg/L	0.5	<0.5
		sec-butylbenzene	µg/L	0.5	<0.5
		p-isopropyltoluene	µg/L	0.5	<0.5
		n-butylbenzene	µg/L	0.5	<0.5
	Nitrogenous Compounds	Acrylonitrile	µg/L	0.5	<0.5
	Oxygenated Compounds	Acetone (2-propanone)	µg/L	10	<10
		MtBE (Methyl-tert-butyl ether)	µg/L	2	<2
		Vinyl acetate	µg/L	10	<10
		MEK (2-butanone)	µg/L	10	<10
		MIBK (4-methyl-2-pentanone)	µg/L	5	<5
		2-hexanone (MBK)	µg/L	5	<5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Sulphonated	Carbon disulfide	µg/L	2	<2
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	95
		d8-toluene (Surrogate)	%	-	98
		Bromofluorobenzene (Surrogate)	%	-	92
	Trihalomethanes	Chloroform (THM)	µg/L	0.5	<0.5
		Bromodichloromethane (THM)	µg/L	0.5	<0.5
		Dibromochloromethane (THM)	µg/L	0.5	<0.5
		Bromoform (THM)	µg/L	0.5	<0.5

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result
LB191456.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	95
		d8-toluene (Surrogate)	%	-	98
		Bromofluorobenzene (Surrogate)	%	-	92

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

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

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

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

Original	Duplicate	Parameter	Units	LOR

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191513.002		Naphthalene	µg/L	0.1	30	40	60 - 140	75
		Acenaphthylene	µg/L	0.1	34	40	60 - 140	85
		Acenaphthene	µg/L	0.1	29	40	60 - 140	73
		Phenanthrene	µg/L	0.1	33	40	60 - 140	83
		Anthracene	µg/L	0.1	32	40	60 - 140	80
		Fluoranthene	µg/L	0.1	32	40	60 - 140	79
		Pyrene	µg/L	0.1	36	40	60 - 140	90
		Benzo(a)pyrene	µg/L	0.1	33	40	60 - 140	82
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.5	40 - 130	60
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	74
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	84

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191513.002		TRH C10-C14	µg/L	50	1000	1200	60 - 140	86
		TRH C15-C28	µg/L	200	1200	1200	60 - 140	97
		TRH C29-C36	µg/L	200	1000	1200	60 - 140	86
	TRH F Bands	TRH >C10-C16	µg/L	60	1100	1200	60 - 140	91
		TRH >C16-C34 (F3)	µg/L	500	1200	1200	60 - 140	97
		TRH >C34-C40 (F4)	µg/L	500	510	600	60 - 140	85

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191456.002	Halogenated	1,1-dichloroethene	µg/L	0.5	62	45.45	60 - 140	136
	Aliphatics	1,2-dichloroethane	µg/L	0.5	49	45.45	60 - 140	108
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	38	45.45	60 - 140	85
	Halogenated	Chlorobenzene	µg/L	0.5	57	45.45	60 - 140	125
	Monocyclic	Benzene	µg/L	0.5	45	45.45	60 - 140	100
	Aromatic	Toluene	µg/L	0.5	46	45.45	60 - 140	101
		Ethylbenzene	µg/L	0.5	46	45.45	60 - 140	101
		m/p-xylene	µg/L	1	92	90.9	60 - 140	101
		o-xylene	µg/L	0.5	46	45.45	60 - 140	101
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.3	10	60 - 140	93
		d8-toluene (Surrogate)	µg/L	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	10.3	10	70 - 130	103
	Trihalomethan	Chloroform (THM)	µg/L	0.5	43	45.45	60 - 140	95

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191456.002		TRH C6-C10	µg/L	50	740	946.63	60 - 140	78
		TRH C6-C9	µg/L	40	640	818.71	60 - 140	78
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.3	10	60 - 140	93
		d8-toluene (Surrogate)	µg/L	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	10.3	10	70 - 130	103
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	460	639.67	60 - 140	72

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

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

QC Sample	Sample Number	Parameter	Units	LOR

MATRIX SPIKE DUPLICATES

SE201694RE R0

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

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

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

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

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

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: 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.
-	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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STATEMENT OF QA/QC PERFORMANCE

SE201694 R1

CLIENT DETAILS

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Facsimile	(Not specified)
Email	Luiza.Barbosa@eiaustralia.com.au
Project	**E24470 40-76 William St Leichhardt NSW**
Order Number	**E24470**
Samples	8

LABORATORY DETAILS

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SGS Reference	**SE201694 R1**
Date Received	10 Jan 2020
Date Reported	22 Jan 2020

COMMENTS

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

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

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	8 Water
Date documentation received	10/1/2020	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	4.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE201694 R1

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

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

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

Mercury (dissolved) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-1	SE201694.001	LB191037	10 Jan 2020	10 Jan 2020	07 Feb 2020	14 Jan 2020	07 Feb 2020	14 Jan 2020
BH3M-1	SE201694.002	LB191037	10 Jan 2020	10 Jan 2020	07 Feb 2020	14 Jan 2020	07 Feb 2020	14 Jan 2020
BH4M-1	SE201694.003	LB191037	10 Jan 2020	10 Jan 2020	07 Feb 2020	14 Jan 2020	07 Feb 2020	14 Jan 2020
BH9M-1	SE201694.004	LB191037	10 Jan 2020	10 Jan 2020	07 Feb 2020	14 Jan 2020	07 Feb 2020	14 Jan 2020
GWQD1	SE201694.005	LB191037	10 Jan 2020	10 Jan 2020	07 Feb 2020	14 Jan 2020	07 Feb 2020	14 Jan 2020
GWQR1	SE201694.006	LB191037	10 Jan 2020	10 Jan 2020	07 Feb 2020	14 Jan 2020	07 Feb 2020	14 Jan 2020

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
BH1M-1	SE201694.001	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
BH3M-1	SE201694.002	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
BH4M-1	SE201694.003	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
BH9M-1	SE201694.004	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
GWQD1	SE201694.005	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
GWQR1	SE201694.006	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-1	SE201694.001	LB191148	10 Jan 2020	10 Jan 2020	07 Feb 2020	15 Jan 2020	07 Feb 2020	15 Jan 2020
BH3M-1	SE201694.002	LB191148	10 Jan 2020	10 Jan 2020	07 Feb 2020	15 Jan 2020	07 Feb 2020	15 Jan 2020
BH4M-1	SE201694.003	LB191148	10 Jan 2020	10 Jan 2020	07 Feb 2020	15 Jan 2020	07 Feb 2020	15 Jan 2020
BH9M-1	SE201694.004	LB191148	10 Jan 2020	10 Jan 2020	07 Feb 2020	15 Jan 2020	07 Feb 2020	15 Jan 2020

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
BH1M-1	SE201694.001	LB191035	10 Jan 2020	10 Jan 2020	08 Jul 2020	14 Jan 2020	08 Jul 2020	14 Jan 2020
BH3M-1	SE201694.002	LB191035	10 Jan 2020	10 Jan 2020	08 Jul 2020	14 Jan 2020	08 Jul 2020	14 Jan 2020
BH4M-1	SE201694.003	LB191035	10 Jan 2020	10 Jan 2020	08 Jul 2020	14 Jan 2020	08 Jul 2020	14 Jan 2020
BH9M-1	SE201694.004	LB191035	10 Jan 2020	10 Jan 2020	08 Jul 2020	14 Jan 2020	08 Jul 2020	14 Jan 2020
GWQD1	SE201694.005	LB191035	10 Jan 2020	10 Jan 2020	08 Jul 2020	14 Jan 2020	08 Jul 2020	14 Jan 2020
GWQR1	SE201694.006	LB191035	10 Jan 2020	10 Jan 2020	08 Jul 2020	14 Jan 2020	08 Jul 2020	14 Jan 2020

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-1	SE201694.001	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
BH3M-1	SE201694.002	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
BH4M-1	SE201694.003	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
BH9M-1	SE201694.004	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	16 Jan 2020
GWQD1	SE201694.005	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	17 Jan 2020
GWQR1	SE201694.006	LB191010	10 Jan 2020	10 Jan 2020	17 Jan 2020	13 Jan 2020	22 Feb 2020	17 Jan 2020

VOCs in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-1	SE201694.001	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
BH3M-1	SE201694.002	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
BH4M-1	SE201694.003	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
BH9M-1	SE201694.004	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
GWQD1	SE201694.005	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
GWQR1	SE201694.006	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
GWQTS1	SE201694.007	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
GWQTB1	SE201694.008	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020

Volatile Petroleum Hydrocarbons in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M-1	SE201694.001	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
BH3M-1	SE201694.002	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
BH4M-1	SE201694.003	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
BH9M-1	SE201694.004	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
GWQD1	SE201694.005	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
GWQR1	SE201694.006	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	15 Jan 2020
GWQTS1	SE201694.007	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	17 Jan 2020
GWQTB1	SE201694.008	LB191051	10 Jan 2020	10 Jan 2020	17 Jan 2020	14 Jan 2020	23 Feb 2020	17 Jan 2020

HOLDING TIME SUMMARY

SE201694 R1

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.

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	62
	BH3M-1	SE201694.002	%	40 - 130%	50
	BH4M-1	SE201694.003	%	40 - 130%	74
	BH9M-1	SE201694.004	%	40 - 130%	88
d14-p-terphenyl (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	82
	BH3M-1	SE201694.002	%	40 - 130%	72
	BH4M-1	SE201694.003	%	40 - 130%	84
	BH9M-1	SE201694.004	%	40 - 130%	80
d5-nitrobenzene (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	44
	BH3M-1	SE201694.002	%	40 - 130%	40
	BH4M-1	SE201694.003	%	40 - 130%	50
	BH9M-1	SE201694.004	%	40 - 130%	62

VOCs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	84
	BH3M-1	SE201694.002	%	40 - 130%	81
	BH4M-1	SE201694.003	%	40 - 130%	82
	BH9M-1	SE201694.004	%	40 - 130%	83
	GWQD1	SE201694.005	%	40 - 130%	82
	GWQR1	SE201694.006	%	40 - 130%	80
	GWQTS1	SE201694.007	%	40 - 130%	104
	GWQTB1	SE201694.008	%	40 - 130%	79
d4-1,2-dichloroethane (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	114
	BH3M-1	SE201694.002	%	40 - 130%	121
	BH4M-1	SE201694.003	%	40 - 130%	124
	BH9M-1	SE201694.004	%	40 - 130%	125
	GWQD1	SE201694.005	%	40 - 130%	120
	GWQR1	SE201694.006	%	40 - 130%	124
	GWQTS1	SE201694.007	%	40 - 130%	105
	GWQTB1	SE201694.008	%	40 - 130%	123
d8-toluene (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	109
	BH3M-1	SE201694.002	%	40 - 130%	102
	BH4M-1	SE201694.003	%	40 - 130%	109
	BH9M-1	SE201694.004	%	40 - 130%	107
	GWQD1	SE201694.005	%	40 - 130%	108
	GWQR1	SE201694.006	%	40 - 130%	105
	GWQTS1	SE201694.007	%	40 - 130%	101
	GWQTB1	SE201694.008	%	40 - 130%	106

Volatile Petroleum Hydrocarbons in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	84
	BH3M-1	SE201694.002	%	40 - 130%	81
	BH4M-1	SE201694.003	%	40 - 130%	82
	BH9M-1	SE201694.004	%	40 - 130%	83
	GWQD1	SE201694.005	%	40 - 130%	82
	GWQR1	SE201694.006	%	40 - 130%	80
d4-1,2-dichloroethane (Surrogate)	BH1M-1	SE201694.001	%	60 - 130%	114
	BH3M-1	SE201694.002	%	60 - 130%	121
	BH4M-1	SE201694.003	%	60 - 130%	124
	BH9M-1	SE201694.004	%	60 - 130%	125
	GWQD1	SE201694.005	%	60 - 130%	120
	GWQR1	SE201694.006	%	60 - 130%	124
d8-toluene (Surrogate)	BH1M-1	SE201694.001	%	40 - 130%	109
	BH3M-1	SE201694.002	%	40 - 130%	102
	BH4M-1	SE201694.003	%	40 - 130%	109
	BH9M-1	SE201694.004	%	40 - 130%	107
	GWQD1	SE201694.005	%	40 - 130%	108
	GWQR1	SE201694.006	%	40 - 130%	105

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

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

Mercury (dissolved) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB191037.001	Mercury	mg/L	0.0001	<0.0001

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result
LB191010.001		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)	%	-	119
		2-fluorobiphenyl (Surrogate)	%	-	49
		d14-p-terphenyl (Surrogate)	%	-	72

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result
LB191148.001	Total Phenols	mg/L	0.01	<0.01

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Number	Parameter	Units	LOR	Result
LB191035.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB191010.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result
LB191051.001	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5
		1,2-dichloropropane	µg/L	0.5	<0.5
		cis-1,3-dichloropropene	µg/L	0.5	<0.5
		trans-1,3-dichloropropene	µg/L	0.5	<0.5
		1,2-dibromoethane (EDB)	µg/L	0.5	<0.5
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5
		Chloromethane	µg/L	5	<5
		Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3
		Bromomethane	µg/L	10	<10
		Chloroethane	µg/L	5	<5
		Trichlorofluoromethane	µg/L	1	<1
		Iodomethane	µg/L	5	<5

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

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

VOCs in Water (continued)

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

Sample Number		Parameter	Units	LOR	Result
LB191051.001	Halogenated Aliphatics	1,1-dichloroethene	µg/L	0.5	<0.5
		Dichloromethane (Methylene chloride)	µg/L	5	<5
		Allyl chloride	µg/L	2	<2
		trans-1,2-dichloroethene	µg/L	0.5	<0.5
		1,1-dichloroethane	µg/L	0.5	<0.5
		cis-1,2-dichloroethene	µg/L	0.5	<0.5
		Bromochloromethane	µg/L	0.5	<0.5
		1,2-dichloroethane	µg/L	0.5	<0.5
		1,1,1-trichloroethane	µg/L	0.5	<0.5
		1,1-dichloropropene	µg/L	0.5	<0.5
		Carbon tetrachloride	µg/L	0.5	<0.5
		Dibromomethane	µg/L	0.5	<0.5
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5
		1,1,2-trichloroethane	µg/L	0.5	<0.5
		1,3-dichloropropane	µg/L	0.5	<0.5
		Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5
		1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5
		cis-1,4-dichloro-2-butene	µg/L	1	<1
		1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5
		1,2,3-trichloropropane	µg/L	0.5	<0.5
		trans-1,4-dichloro-2-butene	µg/L	1	<1
		1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5
		Hexachlorobutadiene	µg/L	0.5	<0.5
	Halogenated Aromatics	Chlorobenzene	µg/L	0.5	<0.5
		Bromobenzene	µg/L	0.5	<0.5
		2-chlorotoluene	µg/L	0.5	<0.5
		4-chlorotoluene	µg/L	0.5	<0.5
		1,3-dichlorobenzene	µg/L	0.5	<0.5
		1,4-dichlorobenzene	µg/L	0.3	<0.3
		1,2-dichlorobenzene	µg/L	0.5	<0.5
		1,2,4-trichlorobenzene	µg/L	0.5	<0.5
		1,2,3-trichlorobenzene	µg/L	0.5	<0.5
	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
		Styrene (Vinyl benzene)	µg/L	0.5	<0.5
		Isopropylbenzene (Cumene)	µg/L	0.5	<0.5
		n-propylbenzene	µg/L	0.5	<0.5
		1,3,5-trimethylbenzene	µg/L	0.5	<0.5
		tert-butylbenzene	µg/L	0.5	<0.5
		1,2,4-trimethylbenzene	µg/L	0.5	<0.5
		sec-butylbenzene	µg/L	0.5	<0.5
		p-isopropyltoluene	µg/L	0.5	<0.5
		n-butylbenzene	µg/L	0.5	<0.5
	Nitrogenous Compounds	Acrylonitrile	µg/L	0.5	<0.5
	Oxygenated Compounds	Acetone (2-propanone)	µg/L	10	<10
		MtBE (Methyl-tert-butyl ether)	µg/L	2	<2
		Vinyl acetate	µg/L	10	<10
		MEK (2-butanone)	µg/L	10	<10
		MIBK (4-methyl-2-pentanone)	µg/L	5	<5
		2-hexanone (MBK)	µg/L	5	<5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Sulphonated	Carbon disulfide	µg/L	2	<2
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	116
		d8-toluene (Surrogate)	%	-	103
		Bromofluorobenzene (Surrogate)	%	-	78
	Trihalomethanes	Chloroform (THM)	µg/L	0.5	<0.5
		Bromodichloromethane (THM)	µg/L	0.5	<0.5
		Dibromochloromethane (THM)	µg/L	0.5	<0.5

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

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

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

Sample Number		Parameter	Units	LOR	Result
LB191051.001	Trihalomethanes	Bromoform (THM)	µg/L	0.5	<0.5

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

Sample Number		Parameter	Units	LOR	Result
LB191051.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	116
		d8-toluene (Surrogate)	%	-	103
		Bromofluorobenzene (Surrogate)	%	-	78

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

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

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

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

Mercury (dissolved) in Water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201727.013	LB191037.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	0

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201694.001	LB191010.021		Naphthalene	µg/L	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
			Acenaphthylene	µg/L	0.1	<0.1	<0.1	200	0
			Acenaphthene	µg/L	0.1	<0.1	<0.1	200	0
			Fluorene	µg/L	0.1	<0.1	<0.1	200	0
			Phenanthrene	µg/L	0.1	<0.1	<0.1	200	0
			Anthracene	µg/L	0.1	<0.1	<0.1	200	0
			Fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
			Pyrene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	200	0
			Chrysene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.2	0.2	30	4
			2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.3	30	0
			d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.4	30	5

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201620.001	LB191148.004	Total Phenols	mg/L	0.01	<0.05	<0.05	200	0

Trace Metals (Dissolved) in Water by ICPMS

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201727.013	LB191035.013	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	<1	<1	198	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	<5	<5	200	0

TRH (Total Recoverable Hydrocarbons) in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201694.001	LB191010.020		TRH C10-C14	µg/L	50	780	780	36	0
			TRH C15-C28	µg/L	200	380	330	86	12
			TRH C29-C36	µg/L	200	310	290	97	6
			TRH C37-C40	µg/L	200	<200	<200	200	0
			TRH C10-C40	µg/L	320	1500	1400	52	4
		TRH F Bands	TRH >C10-C16	µg/L	60	910	900	37	1
			TRH >C10-C16 - Naphthalene (F2)	µg/L	60	910	900	37	1
			TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
			TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOCs in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201692.001	LB191051.024	Monocyclic	Benzene	µg/L	0.5	<0.5	0	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	0.0244165761	200	0
			Ethylbenzene	µg/L	0.5	<0.5	0.0067052698	200	0
			m/p-xylene	µg/L	1	<1	0.0162795861	200	0

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201692.001	LB191051.024	Monocyclic	o-xylene	µg/L	0.5	<0.5	0.0064480976	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	0.1106332165	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.7	11.5320010134	30	1
			d8-toluene (Surrogate)	µg/L	-	10.7	10.3402229766	30	4
			Bromofluorobenzene (Surrogate)	µg/L	-	8.3	8.2849551200	30	0
SE201694.004	LB191051.035	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	200	0
		Halogenated	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	200	0
		Aliphatics	Chloromethane	µg/L	5	<5	<5	200	0
			Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	200	0
			Bromomethane	µg/L	10	<10	<10	200	0
			Chloroethane	µg/L	5	<5	<5	200	0
			Trichlorofluoromethane	µg/L	1	<1	<1	200	0
			Iodomethane	µg/L	5	<5	<5	200	0
			1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	200	0
			Allyl chloride	µg/L	2	<2	<2	200	0
			trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Bromochloromethane	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	200	0
			Dibromomethane	µg/L	0.5	<0.5	<0.5	200	0
			Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	200	0
			1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	200	0
			1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	200	0
			1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,2,3-trichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	200	0
			1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	200	0
			Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	200	0
		Halogenated	Chlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatics	Bromobenzene	µg/L	0.5	<0.5	<0.5	200	0
			2-chlorotoluene	µg/L	0.5	<0.5	<0.5	200	0
			4-chlorotoluene	µg/L	0.5	<0.5	<0.5	200	0
			1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	200	0
			1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
		Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	5.2	5.2	40	0
			Ethylbenzene	µg/L	0.5	0.6	0.6	120	2
			m/p-xylene	µg/L	1	2	2	75	6
			o-xylene	µg/L	0.5	1.2	1.3	70	11
			Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	200	0
			Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	200	0
			n-propylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			tert-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			sec-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0

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

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

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

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

VOCs in Water (continued)

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201694.004	LB191051.035	Monocyclic	p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	n-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
		Nitrogenous	Acrylonitrile	µg/L	0.5	<0.5	<0.5	200	0
		Oxygenated	Acetone (2-propanone)	µg/L	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<2	200	0
			Vinyl acetate	µg/L	10	<10	<10	200	0
			MEK (2-butanone)	µg/L	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	200	0
			2-hexanone (MBK)	µg/L	5	<5	<5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Sulphonated	Carbon disulfide	µg/L	2	<2	<2	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	12.5	11.1	30	12
			d8-toluene (Surrogate)	µg/L	-	10.7	9.8	30	9
			Bromofluorobenzene (Surrogate)	µg/L	-	8.3	8.5	30	3
		Trihalomethan	Chloroform (THM)	µg/L	0.5	<0.5	<0.5	200	0
		es	Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	200	0
			Bromoform (THM)	µg/L	0.5	<0.5	<0.5	200	0

Volatile Petroleum Hydrocarbons in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201692.001	LB191051.024		TRH C6-C10	µg/L	50	<50	0	200	0
			TRH C6-C9	µg/L	40	<40	0	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.7	11.5320010134	30	1
			d8-toluene (Surrogate)	µg/L	-	10.7	10.3402229766	30	4
			Bromofluorobenzene (Surrogate)	µg/L	-	8.3	8.2849551200	30	0
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	0	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	0	200	0
SE201694.004	LB191051.035		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	-	12.5	11.1	30	12
			d8-toluene (Surrogate)	µg/L	-	10.7	9.8	30	9
			Bromofluorobenzene (Surrogate)	µg/L	-	8.3	8.5	30	3
		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

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191010.002		Naphthalene	µg/L	0.1	26	40	60 - 140	64
		Acenaphthylene	µg/L	0.1	28	40	60 - 140	69
		Acenaphthene	µg/L	0.1	28	40	60 - 140	70
		Phenanthrene	µg/L	0.1	31	40	60 - 140	78
		Anthracene	µg/L	0.1	32	40	60 - 140	79
		Fluoranthene	µg/L	0.1	30	40	60 - 140	76
		Pyrene	µg/L	0.1	32	40	60 - 140	81
		Benzo(a)pyrene	µg/L	0.1	32	40	60 - 140	81
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.6	0.5	40 - 130	126
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	57
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	76

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191148.002	Total Phenols	mg/L	0.01	0.21	0.25	80 - 120	85

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191035.002	Arsenic, As	µg/L	1	20	20	80 - 120	98
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	106
	Chromium, Cr	µg/L	1	22	20	80 - 120	109
	Copper, Cu	µg/L	1	22	20	80 - 120	109
	Lead, Pb	µg/L	1	21	20	80 - 120	107
	Nickel, Ni	µg/L	1	20	20	80 - 120	102
	Zinc, Zn	µg/L	5	22	20	80 - 120	110

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191010.002		TRH C10-C14	µg/L	50	870	1200	60 - 140	73
		TRH C15-C28	µg/L	200	990	1200	60 - 140	83
		TRH C29-C36	µg/L	200	1400	1200	60 - 140	113
	TRH F Bands	TRH >C10-C16	µg/L	60	920	1200	60 - 140	76
		TRH >C16-C34 (F3)	µg/L	500	1000	1200	60 - 140	87
		TRH >C34-C40 (F4)	µg/L	500	630	600	60 - 140	105

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191051.002	Halogenated	1,1-dichloroethene	µg/L	0.5	30	45.45	60 - 140	67
	Aliphatics	1,2-dichloroethane	µg/L	0.5	46	45.45	60 - 140	101
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	36	45.45	60 - 140	80
	Halogenated	Chlorobenzene	µg/L	0.5	62	45.45	60 - 140	136
	Monocyclic	Benzene	µg/L	0.5	51	45.45	60 - 140	113
	Aromatic	Toluene	µg/L	0.5	53	45.45	60 - 140	118
		Ethylbenzene	µg/L	0.5	49	45.45	60 - 140	109
		m/p-xylene	µg/L	1	98	90.9	60 - 140	108
		o-xylene	µg/L	0.5	48	45.45	60 - 140	106
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.5	10	60 - 140	105
		d8-toluene (Surrogate)	µg/L	-	10.1	10	70 - 130	101
		Bromofluorobenzene (Surrogate)	µg/L	-	10.4	10	70 - 130	104
	Trihalomethan	Chloroform (THM)	µg/L	0.5	44	45.45	60 - 140	97

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191051.002		TRH C6-C10	µg/L	50	1000	946.63	60 - 140	109
		TRH C6-C9	µg/L	40	890	818.71	60 - 140	109
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.5	10	60 - 140	105
		d8-toluene (Surrogate)	µg/L	-	10.1	10	70 - 130	101
		Bromofluorobenzene (Surrogate)	µg/L	-	10.4	10	70 - 130	104
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	730	639.67	60 - 140	114

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

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

Mercury (dissolved) in Water

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201692.001	LB191037.004	Mercury	mg/L	0.0001	0.0077	<0.0001	0.008	97

Total Phenolics in Water

Method: ME-(AU)-[ENV]AN289

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201550.001	LB191148.019	Total Phenols	mg/L	0.01	0.24	<0.05	0.25	82

Trace Metals (Dissolved) in Water by ICPMS

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201692.001	LB191035.004	Arsenic, As	µg/L	1	23	<1	20	112
		Cadmium, Cd	µg/L	0.1	22	<0.1	20	108
		Chromium, Cr	µg/L	1	22	<1	20	108
		Copper, Cu	µg/L	1	21	1	20	101
		Lead, Pb	µg/L	1	21	<1	20	102
		Nickel, Ni	µg/L	1	25	6	20	98
		Zinc, Zn	µg/L	5	36	15	20	102

VOCs in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201694.005	LB191051.033	Monocyclic Aromatic	Benzene	µg/L	0.5	52	<0.5	45.45	115
			Toluene	µg/L	0.5	54	<0.5	45.45	119
			Ethylbenzene	µg/L	0.5	45	<0.5	45.45	99
			m/p-xylene	µg/L	1	99	<1	90.9	109
			o-xylene	µg/L	0.5	47	<0.5	45.45	104
		Polycyclic	Naphthalene	µg/L	0.5	44	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.0	12.0	-	110
			d8-toluene (Surrogate)	µg/L	-	10.4	10.8	-	104
			Bromofluorobenzene (Surrogate)	µg/L	-	10.0	8.2	-	100

Volatile Petroleum Hydrocarbons in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201694.005	LB191051.033		TRH C6-C10	µg/L	50	900	<50	946.63	95
			TRH C6-C9	µg/L	40	840	<40	818.71	103
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.0	12.0	-	110
			d8-toluene (Surrogate)	µg/L	-	10.4	10.8	-	104
			Bromofluorobenzene (Surrogate)	µg/L	-	10.0	8.2	-	100
		VPH F Bands	Benzene (F0)	µg/L	0.5	52	<0.5	-	-
			TRH C6-C10 minus BTEX (F1)	µg/L	50	600	<50	639.67	94

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

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

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

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

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

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: 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.
-	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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STATEMENT OF QA/QC PERFORMANCE

SE201451A R0

CLIENT DETAILS

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Project	**E24470 40-76 William St, Leichardt NSW**
Order Number	**E24470**
Samples	28

LABORATORY DETAILS

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SGS Reference	**SE201451A R0**
Date Received	10 Jan 2020
Date Reported	17 Jan 2020

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:

Extraction Date	Mercury in TCLP Extract	1 item
	PAH (Polynuclear Aromatic Hydrocarbons) in TCLP Extract	3 items
	TCLP (Toxicity Characteristic Leaching Procedure) for Organics/SVOC	3 items
Analysis Date	Mercury in TCLP Extract	1 item
	TCLP (Toxicity Characteristic Leaching Procedure) for Organics/SVOC	3 items

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	5 Soil
Date documentation received	10/1/2020@4:51pm	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	6.1°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE201451A R0

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

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

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

Mercury in TCLP Extract

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH6M_0.4-0.5	SE201451A.009	LB191270	16 Dec 2019	10 Jan 2020	13 Jan 2020	17 Jan 2020†	13 Jan 2020	17 Jan 2020†

Metals in TCLP Extract by ICPOES

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH14_0.4-0.5	SE201451A.018	LB191318	18 Dec 2019	10 Jan 2020	15 Jun 2020	17 Jan 2020	15 Jun 2020	17 Jan 2020
BH14_0.9-1.0	SE201451A.019	LB191318	18 Dec 2019	10 Jan 2020	15 Jun 2020	17 Jan 2020	15 Jun 2020	17 Jan 2020
BH15_0.4-0.5	SE201451A.020	LB191318	18 Dec 2019	10 Jan 2020	15 Jun 2020	17 Jan 2020	15 Jun 2020	17 Jan 2020

PAH (Polynuclear Aromatic Hydrocarbons) in TCLP Extract

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH4M_2.0-2.1	SE201451A.007	LB191010	18 Dec 2019	10 Jan 2020	08 Jan 2020	13 Jan 2020†	22 Feb 2020	17 Jan 2020
BH6M_0.4-0.5	SE201451A.009	LB191010	16 Dec 2019	10 Jan 2020	06 Jan 2020	13 Jan 2020†	22 Feb 2020	17 Jan 2020
BH14_0.4-0.5	SE201451A.018	LB191010	18 Dec 2019	10 Jan 2020	08 Jan 2020	13 Jan 2020†	22 Feb 2020	17 Jan 2020

TCLP (Toxicity Characteristic Leaching Procedure) for Metals

Method: ME-(AU)-[ENV]AN006

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH14_0.9-1.0	SE201451A.019	LB191232	18 Dec 2019	10 Jan 2020	15 Jun 2020	16 Jan 2020	15 Jun 2020	17 Jan 2020
BH15_0.4-0.5	SE201451A.020	LB191232	18 Dec 2019	10 Jan 2020	15 Jun 2020	16 Jan 2020	15 Jun 2020	17 Jan 2020

TCLP (Toxicity Characteristic Leaching Procedure) for Organics/SVOC

Method: ME-(AU)-[ENV]AN006

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH4M_2.0-2.1	SE201451A.007	LB191233	18 Dec 2019	10 Jan 2020	01 Jan 2020	16 Jan 2020†	01 Jan 2020	17 Jan 2020†
BH6M_0.4-0.5	SE201451A.009	LB191233	16 Dec 2019	10 Jan 2020	30 Dec 2019	16 Jan 2020†	30 Dec 2019	17 Jan 2020†
BH14_0.4-0.5	SE201451A.018	LB191233	18 Dec 2019	10 Jan 2020	01 Jan 2020	16 Jan 2020†	01 Jan 2020	17 Jan 2020†

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

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

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH4M_2.0-2.1	SE201451A.007	%	40 - 130%	40
	BH6M_0.4-0.5	SE201451A.009	%	40 - 130%	48
	BH14_0.4-0.5	SE201451A.018	%	40 - 130%	54
d14-p-terphenyl (Surrogate)	BH4M_2.0-2.1	SE201451A.007	%	40 - 130%	68
	BH6M_0.4-0.5	SE201451A.009	%	40 - 130%	62
	BH14_0.4-0.5	SE201451A.018	%	40 - 130%	60
d5-nitrobenzene (Surrogate)	BH4M_2.0-2.1	SE201451A.007	%	40 - 130%	56
	BH6M_0.4-0.5	SE201451A.009	%	40 - 130%	50
	BH14_0.4-0.5	SE201451A.018	%	40 - 130%	62

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

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

Mercury in TCLP Extract

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

Sample Number	Parameter	Units	LOR	Result
LB191270.001	Mercury	mg/L	0.0001	-0.0304

Metals in TCLP Extract by ICPOES

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

Sample Number	Parameter	Units	LOR	Result
LB191318.001	Lead, Pb	mg/L	0.02	<0.02

PAH (Polynuclear Aromatic Hydrocarbons) in TCLP Extract

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

Sample Number		Parameter	Units	LOR	Result
LB191010.001		Benzo(a)pyrene	µg/L	0.1	<0.1
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	52
		2-fluorobiphenyl (Surrogate)	%	-	50
		d14-p-terphenyl (Surrogate)	%	-	72

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

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

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

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

Original	Duplicate	Parameter	Units	LOR

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.

Metals in TCLP Extract by ICPOES

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191318.002	Lead, Pb	mg/L	0.02	0.48	0.5	80 - 120	95

PAH (Polynuclear Aromatic Hydrocarbons) in TCLP Extract

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB191010.002		Benzo(a)pyrene	µg/L	0.1	32	40	60 - 140	81
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.5	40 - 130	56
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	58
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	76

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

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

QC Sample	Sample Number	Parameter	Units	LOR

MATRIX SPIKE DUPLICATES

SE201451A R0

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

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

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

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

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

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: 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.
-	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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STATEMENT OF QA/QC PERFORMANCE

SE201451 R0

CLIENT DETAILS

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Project	**E24470 40-76 William St, Leichardt NSW**
Order Number	**E24470**
Samples	28

LABORATORY DETAILS

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SGS Reference	**SE201451 R0**
Date Received	20 Dec 2019
Date Reported	02 Jan 2020

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:

Surrogate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	5 items
Duplicate	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	8 items
	Total Phenolics in Soil	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	3 items
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	3 items
	VOC's in Soil	6 items
	Volatile Petroleum Hydrocarbons in Soil	3 items
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	4 items
	TRH (Total Recoverable Hydrocarbons) in Soil	2 items

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	27 Soil, 1 Water
Date documentation received	20/12/2019@12:07p	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	6.1°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE201451 R0

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

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

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

Fibre Identification in soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190807	16 Dec 2019	20 Dec 2019	15 Dec 2020	27 Dec 2019	15 Dec 2020	30 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190807	16 Dec 2019	20 Dec 2019	15 Dec 2020	27 Dec 2019	15 Dec 2020	30 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190807	16 Dec 2019	20 Dec 2019	15 Dec 2020	27 Dec 2019	15 Dec 2020	30 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190807	16 Dec 2019	20 Dec 2019	15 Dec 2020	27 Dec 2019	15 Dec 2020	30 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190807	18 Dec 2019	20 Dec 2019	17 Dec 2020	27 Dec 2019	17 Dec 2020	30 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190807	18 Dec 2019	20 Dec 2019	17 Dec 2020	27 Dec 2019	17 Dec 2020	30 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190807	16 Dec 2019	20 Dec 2019	15 Dec 2020	27 Dec 2019	15 Dec 2020	30 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190807	16 Dec 2019	20 Dec 2019	15 Dec 2020	27 Dec 2019	15 Dec 2020	30 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190807	17 Dec 2019	20 Dec 2019	16 Dec 2020	27 Dec 2019	16 Dec 2020	30 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190807	17 Dec 2019	20 Dec 2019	16 Dec 2020	27 Dec 2019	16 Dec 2020	30 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190807	17 Dec 2019	20 Dec 2019	16 Dec 2020	27 Dec 2019	16 Dec 2020	30 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190807	18 Dec 2019	20 Dec 2019	17 Dec 2020	27 Dec 2019	17 Dec 2020	30 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190807	18 Dec 2019	20 Dec 2019	17 Dec 2020	27 Dec 2019	17 Dec 2020	30 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190807	18 Dec 2019	20 Dec 2019	17 Dec 2020	27 Dec 2019	17 Dec 2020	30 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190807	18 Dec 2019	20 Dec 2019	17 Dec 2020	27 Dec 2019	17 Dec 2020	30 Dec 2019

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
QR1	SE201451.026	LB190720	18 Dec 2019	20 Dec 2019	15 Jan 2020	24 Dec 2019	15 Jan 2020	24 Dec 2019

Mercury in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190648	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190648	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190648	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190648	16 Dec 2019	20 Dec 2019	13 Jan 2020	23 Dec 2019	13 Jan 2020	27 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190648	17 Dec 2019	20 Dec 2019	14 Jan 2020	23 Dec 2019	14 Jan 2020	27 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190648	17 Dec 2019	20 Dec 2019	14 Jan 2020	23 Dec 2019	14 Jan 2020	27 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190648	17 Dec 2019	20 Dec 2019	14 Jan 2020	23 Dec 2019	14 Jan 2020	27 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190648	17 Dec 2019	20 Dec 2019	14 Jan 2020	23 Dec 2019	14 Jan 2020	27 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190648	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190648	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190648	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190649	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190649	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190649	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190649	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190649	18 Dec 2019	20 Dec 2019	15 Jan 2020	23 Dec 2019	15 Jan 2020	27 Dec 2019
QD1	SE201451.025	LB190649	17 Dec 2019	20 Dec 2019	14 Jan 2020	23 Dec 2019	14 Jan 2020	27 Dec 2019

Moisture Content

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019

HOLDING TIME SUMMARY

SE201451 R0

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

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

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

Moisture Content (continued)

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH7M_0.3-0.4	SE201451.011	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190624	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190624	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190624	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190624	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190624	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190624	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190621	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019
QD1	SE201451.025	LB190621	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	28 Dec 2019	24 Dec 2019
QTB1	SE201451.028	LB190621	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	28 Dec 2019	24 Dec 2019

OC Pesticides in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190617	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
QD1	SE201451.025	LB190617	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019

OP Pesticides in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019

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.

OP Pesticides in Soil (continued)

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH11_0.2-0.3	SE201451.015	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190617	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019
QD1	SE201451.025	LB190617	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	31 Dec 2019

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
BH1M_0.8-0.9	SE201451.001	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190617	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	30 Dec 2019
QD1	SE201451.025	LB190617	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	31 Dec 2019

PCBs in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019

HOLDING TIME SUMMARY

SE201451 R0

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

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

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

PCBs in Soil (continued)

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15_0.4-0.5	SE201451.020	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190617	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
QD1	SE201451.025	LB190617	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190771	16 Dec 2019	20 Dec 2019	30 Dec 2019	27 Dec 2019	30 Dec 2019	27 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190771	16 Dec 2019	20 Dec 2019	30 Dec 2019	27 Dec 2019	30 Dec 2019	27 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190771	16 Dec 2019	20 Dec 2019	30 Dec 2019	27 Dec 2019	30 Dec 2019	27 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190771	16 Dec 2019	20 Dec 2019	30 Dec 2019	27 Dec 2019	30 Dec 2019	27 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190771	18 Dec 2019	20 Dec 2019	01 Jan 2020	27 Dec 2019	01 Jan 2020	27 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190771	18 Dec 2019	20 Dec 2019	01 Jan 2020	27 Dec 2019	01 Jan 2020	27 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190771	16 Dec 2019	20 Dec 2019	30 Dec 2019	27 Dec 2019	30 Dec 2019	27 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190771	16 Dec 2019	20 Dec 2019	30 Dec 2019	27 Dec 2019	30 Dec 2019	27 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190771	17 Dec 2019	20 Dec 2019	31 Dec 2019	27 Dec 2019	31 Dec 2019	27 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190771	17 Dec 2019	20 Dec 2019	31 Dec 2019	27 Dec 2019	31 Dec 2019	27 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190771	17 Dec 2019	20 Dec 2019	31 Dec 2019	27 Dec 2019	31 Dec 2019	27 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190771	18 Dec 2019	20 Dec 2019	01 Jan 2020	27 Dec 2019	01 Jan 2020	27 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190771	18 Dec 2019	20 Dec 2019	01 Jan 2020	27 Dec 2019	01 Jan 2020	27 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190771	18 Dec 2019	20 Dec 2019	01 Jan 2020	27 Dec 2019	01 Jan 2020	27 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190824	18 Dec 2019	20 Dec 2019	01 Jan 2020	30 Dec 2019	01 Jan 2020	30 Dec 2019

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
BH1M_0.8-0.9	SE201451.001	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190644	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	27 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190644	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	27 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190644	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	27 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190644	16 Dec 2019	20 Dec 2019	13 Jun 2020	23 Dec 2019	13 Jun 2020	27 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190644	17 Dec 2019	20 Dec 2019	14 Jun 2020	23 Dec 2019	14 Jun 2020	27 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190644	17 Dec 2019	20 Dec 2019	14 Jun 2020	23 Dec 2019	14 Jun 2020	27 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190644	17 Dec 2019	20 Dec 2019	14 Jun 2020	23 Dec 2019	14 Jun 2020	27 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190644	17 Dec 2019	20 Dec 2019	14 Jun 2020	23 Dec 2019	14 Jun 2020	27 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190644	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	27 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190644	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	27 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190644	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	27 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190645	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	30 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190645	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	30 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190645	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	30 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190645	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	30 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190645	18 Dec 2019	20 Dec 2019	15 Jun 2020	23 Dec 2019	15 Jun 2020	30 Dec 2019
QD1	SE201451.025	LB190645	17 Dec 2019	20 Dec 2019	14 Jun 2020	23 Dec 2019	14 Jun 2020	30 Dec 2019

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
QR1	SE201451.026	LB190711	18 Dec 2019	20 Dec 2019	15 Jun 2020	24 Dec 2019	15 Jun 2020	24 Dec 2019

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
BH1M_0.8-0.9	SE201451.001	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH1M_2.0-2.2	SE201451.002	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020

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)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2M_0.3-0.4	SE201451.003	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH2M_0.9-1.0	SE201451.004	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH3M_0.3-0.4	SE201451.005	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH4M_0.8-0.9	SE201451.006	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH4M_2.0-2.1	SE201451.007	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH5M_0.3-0.4	SE201451.008	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH6M_0.4-0.5	SE201451.009	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH6M_0.6-0.7	SE201451.010	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH7M_0.3-0.4	SE201451.011	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH8M_0.3-0.4	SE201451.012	LB190620	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH8M_0.5-0.7	SE201451.013	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH10_0.3-0.4	SE201451.014	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH11_0.2-0.3	SE201451.015	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH12_0.3-0.4	SE201451.016	LB190620	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH13_0.3-0.4	SE201451.017	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH14_0.4-0.5	SE201451.018	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH14_0.9-1.0	SE201451.019	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH15_0.4-0.5	SE201451.020	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH15_0.9-1.0	SE201451.021	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH16_0.4-0.5	SE201451.022	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH17_0.4-0.5	SE201451.023	LB190620	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	02 Jan 2020
BH17_2.0-2.1	SE201451.024	LB190617	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019
QD1	SE201451.025	LB190617	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	31 Dec 2019

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE201451.026	LB190702	18 Dec 2019	20 Dec 2019	25 Dec 2019	23 Dec 2019	01 Feb 2020	02 Jan 2020

VOC's in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190611	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
QD1	SE201451.025	LB190611	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
QTS1	SE201451.027	LB190611	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
QTB1	SE201451.028	LB190611	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019

VOCs in Water

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

Sample Name	Sample No.	QC Ref

HOLDING TIME SUMMARY

SE201451 R0

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

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

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

VOCs in Water (continued)

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE201451.026	LB190625	18 Dec 2019	20 Dec 2019	25 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019

Volatile Petroleum Hydrocarbons in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.8-0.9	SE201451.001	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH1M_2.0-2.2	SE201451.002	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH2M_0.3-0.4	SE201451.003	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH2M_0.9-1.0	SE201451.004	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH3M_0.3-0.4	SE201451.005	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH4M_0.8-0.9	SE201451.006	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH4M_2.0-2.1	SE201451.007	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH5M_0.3-0.4	SE201451.008	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH6M_0.4-0.5	SE201451.009	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH6M_0.6-0.7	SE201451.010	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH7M_0.3-0.4	SE201451.011	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH8M_0.3-0.4	SE201451.012	LB190612	16 Dec 2019	20 Dec 2019	30 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH8M_0.5-0.7	SE201451.013	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH10_0.3-0.4	SE201451.014	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH11_0.2-0.3	SE201451.015	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH12_0.3-0.4	SE201451.016	LB190612	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH13_0.3-0.4	SE201451.017	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH14_0.4-0.5	SE201451.018	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH14_0.9-1.0	SE201451.019	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH15_0.4-0.5	SE201451.020	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH15_0.9-1.0	SE201451.021	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH16_0.4-0.5	SE201451.022	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH17_0.4-0.5	SE201451.023	LB190612	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	24 Dec 2019
BH17_2.0-2.1	SE201451.024	LB190611	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	27 Dec 2019
QD1	SE201451.025	LB190611	17 Dec 2019	20 Dec 2019	31 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019
QTS1	SE201451.027	LB190611	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019
QTB1	SE201451.028	LB190611	18 Dec 2019	20 Dec 2019	01 Jan 2020	23 Dec 2019	01 Feb 2020	31 Dec 2019

Volatile Petroleum Hydrocarbons in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE201451.026	LB190625	18 Dec 2019	20 Dec 2019	25 Dec 2019	23 Dec 2019	01 Feb 2020	27 Dec 2019

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

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

OC Pesticides in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	96
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	103
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	95
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	103
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	107
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	107
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	107
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	109
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	105
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	107
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	108
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	105
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	101
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	101
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	100

OP Pesticides in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	86
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	82
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	88
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	84
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	81
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	77
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	81
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	83
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	80
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	75
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	70
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	83
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	76
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	80
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	79
d14-p-terphenyl (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	77
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	77
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	78
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	78
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	73
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	79
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	78
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	75
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	79
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	81
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	85
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	77
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	74
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	65
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	94

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	70 - 130%	86
	BH1M_2.0-2.2	SE201451.002	%	70 - 130%	82
	BH2M_0.3-0.4	SE201451.003	%	70 - 130%	88
	BH2M_0.9-1.0	SE201451.004	%	70 - 130%	84
	BH3M_0.3-0.4	SE201451.005	%	70 - 130%	81
	BH4M_0.8-0.9	SE201451.006	%	70 - 130%	77
	BH4M_2.0-2.1	SE201451.007	%	70 - 130%	82
	BH5M_0.3-0.4	SE201451.008	%	70 - 130%	81
	BH6M_0.4-0.5	SE201451.009	%	70 - 130%	83
	BH6M_0.6-0.7	SE201451.010	%	70 - 130%	96
	BH7M_0.3-0.4	SE201451.011	%	70 - 130%	79

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

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

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH8M_0.3-0.4	SE201451.012	%	70 - 130%	73
	BH8M_0.5-0.7	SE201451.013	%	70 - 130%	80
	BH10_0.3-0.4	SE201451.014	%	70 - 130%	75
	BH11_0.2-0.3	SE201451.015	%	70 - 130%	78
	BH12_0.3-0.4	SE201451.016	%	70 - 130%	70
	BH13_0.3-0.4	SE201451.017	%	70 - 130%	75
	BH14_0.4-0.5	SE201451.018	%	70 - 130%	83
	BH14_0.9-1.0	SE201451.019	%	70 - 130%	75
	BH15_0.4-0.5	SE201451.020	%	70 - 130%	76
	BH15_0.9-1.0	SE201451.021	%	70 - 130%	77
	BH16_0.4-0.5	SE201451.022	%	70 - 130%	80
	BH17_0.4-0.5	SE201451.023	%	70 - 130%	79
	BH17_2.0-2.1	SE201451.024	%	70 - 130%	86
d14-p-terphenyl (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	70 - 130%	77
	BH1M_2.0-2.2	SE201451.002	%	70 - 130%	77
	BH2M_0.3-0.4	SE201451.003	%	70 - 130%	78
	BH2M_0.9-1.0	SE201451.004	%	70 - 130%	78
	BH3M_0.3-0.4	SE201451.005	%	70 - 130%	73
	BH4M_0.8-0.9	SE201451.006	%	70 - 130%	79
	BH4M_2.0-2.1	SE201451.007	%	70 - 130%	79
	BH5M_0.3-0.4	SE201451.008	%	70 - 130%	78
	BH6M_0.4-0.5	SE201451.009	%	70 - 130%	75
	BH6M_0.6-0.7	SE201451.010	%	70 - 130%	81
	BH7M_0.3-0.4	SE201451.011	%	70 - 130%	79
	BH8M_0.3-0.4	SE201451.012	%	70 - 130%	77
	BH8M_0.5-0.7	SE201451.013	%	70 - 130%	79
	BH10_0.3-0.4	SE201451.014	%	70 - 130%	81
	BH11_0.2-0.3	SE201451.015	%	70 - 130%	72
	BH12_0.3-0.4	SE201451.016	%	70 - 130%	85
	BH13_0.3-0.4	SE201451.017	%	70 - 130%	88
	BH14_0.4-0.5	SE201451.018	%	70 - 130%	77
	BH14_0.9-1.0	SE201451.019	%	70 - 130%	80
	BH15_0.4-0.5	SE201451.020	%	70 - 130%	74
	BH15_0.9-1.0	SE201451.021	%	70 - 130%	82
	BH16_0.4-0.5	SE201451.022	%	70 - 130%	65 ①
	BH17_0.4-0.5	SE201451.023	%	70 - 130%	94
	BH17_2.0-2.1	SE201451.024	%	70 - 130%	76
d5-nitrobenzene (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	70 - 130%	75
	BH1M_2.0-2.2	SE201451.002	%	70 - 130%	80
	BH2M_0.3-0.4	SE201451.003	%	70 - 130%	83
	BH2M_0.9-1.0	SE201451.004	%	70 - 130%	77
	BH3M_0.3-0.4	SE201451.005	%	70 - 130%	77
	BH4M_0.8-0.9	SE201451.006	%	70 - 130%	75
	BH4M_2.0-2.1	SE201451.007	%	70 - 130%	81
	BH5M_0.3-0.4	SE201451.008	%	70 - 130%	82
	BH6M_0.4-0.5	SE201451.009	%	70 - 130%	67 ①
	BH6M_0.6-0.7	SE201451.010	%	70 - 130%	81
	BH7M_0.3-0.4	SE201451.011	%	70 - 130%	78
	BH8M_0.3-0.4	SE201451.012	%	70 - 130%	72
	BH8M_0.5-0.7	SE201451.013	%	70 - 130%	74
	BH10_0.3-0.4	SE201451.014	%	70 - 130%	66 ①
	BH11_0.2-0.3	SE201451.015	%	70 - 130%	71
	BH12_0.3-0.4	SE201451.016	%	70 - 130%	73
	BH13_0.3-0.4	SE201451.017	%	70 - 130%	72
	BH14_0.4-0.5	SE201451.018	%	70 - 130%	63 ①
	BH14_0.9-1.0	SE201451.019	%	70 - 130%	74
	BH15_0.4-0.5	SE201451.020	%	70 - 130%	67 ①
	BH15_0.9-1.0	SE201451.021	%	70 - 130%	71
	BH16_0.4-0.5	SE201451.022	%	70 - 130%	79
	BH17_0.4-0.5	SE201451.023	%	70 - 130%	70
	BH17_2.0-2.1	SE201451.024	%	70 - 130%	83

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

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

PCBs in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	96
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	103
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	95
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	103
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	107
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	107
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	107
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	109
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	105
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	107
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	108
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	105
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	101
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	101
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	100

VOC's in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	91
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	79
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	84
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	79
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	84
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	76
	BH4M_2.0-2.1	SE201451.007	%	60 - 130%	75
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	89
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	73
	BH6M_0.6-0.7	SE201451.010	%	60 - 130%	82
	BH7M_0.3-0.4	SE201451.011	%	60 - 130%	77
	BH8M_0.3-0.4	SE201451.012	%	60 - 130%	79
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	80
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	75
	BH11_0.2-0.3	SE201451.015	%	60 - 130%	75
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	80
	BH13_0.3-0.4	SE201451.017	%	60 - 130%	78
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	76
	BH14_0.9-1.0	SE201451.019	%	60 - 130%	80
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	73
	BH15_0.9-1.0	SE201451.021	%	60 - 130%	81
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	81
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	80
	BH17_2.0-2.1	SE201451.024	%	60 - 130%	89
	QD1	SE201451.025	%	60 - 130%	75
	QTS1	SE201451.027	%	60 - 130%	89
	QTB1	SE201451.028	%	60 - 130%	98
d4-1,2-dichloroethane (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	103
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	74
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	79
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	71
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	82
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	72
	BH4M_2.0-2.1	SE201451.007	%	60 - 130%	73
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	83
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	70
	BH6M_0.6-0.7	SE201451.010	%	60 - 130%	75
	BH7M_0.3-0.4	SE201451.011	%	60 - 130%	74
	BH8M_0.3-0.4	SE201451.012	%	60 - 130%	76
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	76
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	74
	BH11_0.2-0.3	SE201451.015	%	60 - 130%	71
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	78

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

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

VOC's in Soil (continued)

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d4-1,2-dichloroethane (Surrogate)	BH13_0.3-0.4	SE201451.017	%	60 - 130%	79
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	73
	BH14_0.9-1.0	SE201451.019	%	60 - 130%	77
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	70
	BH15_0.9-1.0	SE201451.021	%	60 - 130%	72
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	76
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	78
	BH17_2.0-2.1	SE201451.024	%	60 - 130%	99
	QD1	SE201451.025	%	60 - 130%	90
	QTS1	SE201451.027	%	60 - 130%	104
	QTB1	SE201451.028	%	60 - 130%	112
d8-toluene (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	101
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	77
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	81
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	80
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	84
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	71
	BH4M_2.0-2.1	SE201451.007	%	60 - 130%	76
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	87
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	73
	BH6M_0.6-0.7	SE201451.010	%	60 - 130%	76
	BH7M_0.3-0.4	SE201451.011	%	60 - 130%	73
	BH8M_0.3-0.4	SE201451.012	%	60 - 130%	76
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	79
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	73
	BH11_0.2-0.3	SE201451.015	%	60 - 130%	68
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	74
	BH13_0.3-0.4	SE201451.017	%	60 - 130%	79
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	74
	BH14_0.9-1.0	SE201451.019	%	60 - 130%	78
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	71
	BH15_0.9-1.0	SE201451.021	%	60 - 130%	76
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	77
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	79
	BH17_2.0-2.1	SE201451.024	%	60 - 130%	91
	QD1	SE201451.025	%	60 - 130%	81
	QTS1	SE201451.027	%	60 - 130%	100
	QTB1	SE201451.028	%	60 - 130%	108

VOCs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR1	SE201451.026	%	40 - 130%	94
d4-1,2-dichloroethane (Surrogate)	QR1	SE201451.026	%	40 - 130%	100
d8-toluene (Surrogate)	QR1	SE201451.026	%	40 - 130%	102

Volatile Petroleum Hydrocarbons in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	91
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	79
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	84
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	79
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	84
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	76
	BH4M_2.0-2.1	SE201451.007	%	60 - 130%	75
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	89
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	73
	BH6M_0.6-0.7	SE201451.010	%	60 - 130%	82
	BH7M_0.3-0.4	SE201451.011	%	60 - 130%	77
	BH8M_0.3-0.4	SE201451.012	%	60 - 130%	79
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	80
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	75
	BH11_0.2-0.3	SE201451.015	%	60 - 130%	75

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

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

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH12_0.3-0.4	SE201451.016	%	60 - 130%	80
	BH13_0.3-0.4	SE201451.017	%	60 - 130%	78
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	76
	BH14_0.9-1.0	SE201451.019	%	60 - 130%	80
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	73
	BH15_0.9-1.0	SE201451.021	%	60 - 130%	81
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	81
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	80
	BH17_2.0-2.1	SE201451.024	%	60 - 130%	89
	QD1	SE201451.025	%	60 - 130%	75
d4-1,2-dichloroethane (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	103
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	74
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	79
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	71
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	82
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	72
	BH4M_2.0-2.1	SE201451.007	%	60 - 130%	73
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	83
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	70
	BH6M_0.6-0.7	SE201451.010	%	60 - 130%	75
	BH7M_0.3-0.4	SE201451.011	%	60 - 130%	74
	BH8M_0.3-0.4	SE201451.012	%	60 - 130%	76
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	76
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	74
	BH11_0.2-0.3	SE201451.015	%	60 - 130%	71
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	78
	BH13_0.3-0.4	SE201451.017	%	60 - 130%	79
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	73
	BH14_0.9-1.0	SE201451.019	%	60 - 130%	77
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	70
	BH15_0.9-1.0	SE201451.021	%	60 - 130%	72
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	77
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	78
	BH17_2.0-2.1	SE201451.024	%	60 - 130%	99
	QD1	SE201451.025	%	60 - 130%	90
d8-toluene (Surrogate)	BH1M_0.8-0.9	SE201451.001	%	60 - 130%	101
	BH1M_2.0-2.2	SE201451.002	%	60 - 130%	77
	BH2M_0.3-0.4	SE201451.003	%	60 - 130%	81
	BH2M_0.9-1.0	SE201451.004	%	60 - 130%	80
	BH3M_0.3-0.4	SE201451.005	%	60 - 130%	84
	BH4M_0.8-0.9	SE201451.006	%	60 - 130%	71
	BH4M_2.0-2.1	SE201451.007	%	60 - 130%	76
	BH5M_0.3-0.4	SE201451.008	%	60 - 130%	87
	BH6M_0.4-0.5	SE201451.009	%	60 - 130%	73
	BH6M_0.6-0.7	SE201451.010	%	60 - 130%	76
	BH7M_0.3-0.4	SE201451.011	%	60 - 130%	73
	BH8M_0.3-0.4	SE201451.012	%	60 - 130%	76
	BH8M_0.5-0.7	SE201451.013	%	60 - 130%	79
	BH10_0.3-0.4	SE201451.014	%	60 - 130%	73
	BH11_0.2-0.3	SE201451.015	%	60 - 130%	68
	BH12_0.3-0.4	SE201451.016	%	60 - 130%	74
	BH13_0.3-0.4	SE201451.017	%	60 - 130%	79
	BH14_0.4-0.5	SE201451.018	%	60 - 130%	74
	BH14_0.9-1.0	SE201451.019	%	60 - 130%	78
	BH15_0.4-0.5	SE201451.020	%	60 - 130%	71
	BH15_0.9-1.0	SE201451.021	%	60 - 130%	76
	BH16_0.4-0.5	SE201451.022	%	60 - 130%	77
	BH17_0.4-0.5	SE201451.023	%	60 - 130%	79
	BH17_2.0-2.1	SE201451.024	%	60 - 130%	91
	QD1	SE201451.025	%	60 - 130%	81

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

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

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR1	SE201451.026	%	40 - 130%	94
d4-1,2-dichloroethane (Surrogate)	QR1	SE201451.026	%	60 - 130%	100
d8-toluene (Surrogate)	QR1	SE201451.026	%	40 - 130%	102

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

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

Mercury (dissolved) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB190720.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB190648.001	Mercury	mg/kg	0.05	<0.05
LB190649.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

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

Sample Number		Parameter	Units	LOR	Result
LB190620.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	96

OP Pesticides in Soil

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

Sample Number		Parameter	Units	LOR	Result
LB190620.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	77
		d14-p-terphenyl (Surrogate)	%	-	79

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB190617.001	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	mg/kg	0.1	<0.1
	Acenaphthylene	mg/kg	0.1	<0.1
	Acenaphthene	mg/kg	0.1	<0.1
	Fluorene	mg/kg	0.1	<0.1
	Phenanthrene	mg/kg	0.1	<0.1
	Anthracene	mg/kg	0.1	<0.1

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

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

Sample Number		Parameter	Units	LOR	Result
LB190617.001		Fluoranthene	mg/kg	0.1	<0.1
		Pyrene	mg/kg	0.1	<0.1
		Benzo(a)anthracene	mg/kg	0.1	<0.1
		Chrysene	mg/kg	0.1	<0.1
		Benzo(a)pyrene	mg/kg	0.1	<0.1
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
		Benzo(ghi)perylene	mg/kg	0.1	<0.1
		Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	80
		2-fluorobiphenyl (Surrogate)	%	-	87
		d14-p-terphenyl (Surrogate)	%	-	80
LB190620.001		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)	%	-	71
		2-fluorobiphenyl (Surrogate)	%	-	77
		d14-p-terphenyl (Surrogate)	%	-	79

PCBs in Soil

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

Sample Number		Parameter	Units	LOR	Result
LB190620.001		Arochlor 1016	mg/kg	0.2	<0.2
		Arochlor 1221	mg/kg	0.2	<0.2
		Arochlor 1232	mg/kg	0.2	<0.2
		Arochlor 1242	mg/kg	0.2	<0.2
		Arochlor 1248	mg/kg	0.2	<0.2
		Arochlor 1254	mg/kg	0.2	<0.2
		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	96

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result
LB190771.001	Total Phenols	mg/kg	0.1	<0.1
LB190824.001	Total Phenols	mg/kg	0.1	<0.1

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

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

Sample Number	Parameter	Units	LOR	Result
LB190644.001	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

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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
LB190645.001	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
LB190711.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB190617.001	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
LB190620.001	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
LB190702.001	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
LB190611.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1
		Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1
		1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1

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VOC's in Soil (continued)

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

Sample Number		Parameter	Units	LOR	Result
LB190611.001	Halogenated Aliphatics	Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1
	Hydrocarbons	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
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	112
		d8-toluene (Surrogate)	%	-	108
		Bromofluorobenzene (Surrogate)	%	-	102
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1
LB190612.001	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1
		1,2-dichloropropane	mg/kg	0.1	<0.1
		cis-1,3-dichloropropene	mg/kg	0.1	<0.1
		trans-1,3-dichloropropene	mg/kg	0.1	<0.1
		1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1

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

VOC's in Soil (continued)

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

Sample Number		Parameter	Units	LOR	Result
LB190612.001	Halogenated Aliphatics	Chloromethane	mg/kg	1	<1
		Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1
		Bromomethane	mg/kg	1	<1
		Chloroethane	mg/kg	1	<1
		Trichlorofluoromethane	mg/kg	1	<1
		Iodomethane	mg/kg	5	<5
		1,1-dichloroethene	mg/kg	0.1	<0.1
		Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5
		Allyl chloride	mg/kg	0.1	<0.1
		trans-1,2-dichloroethene	mg/kg	0.1	<0.1
		1,1-dichloroethane	mg/kg	0.1	<0.1
		cis-1,2-dichloroethene	mg/kg	0.1	<0.1
		Bromochloromethane	mg/kg	0.1	<0.1
		1,2-dichloroethane	mg/kg	0.1	<0.1
		1,1,1-trichloroethane	mg/kg	0.1	<0.1
		1,1-dichloropropene	mg/kg	0.1	<0.1
		Carbon tetrachloride	mg/kg	0.1	<0.1
		Dibromomethane	mg/kg	0.1	<0.1
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1
		1,1,2-trichloroethane	mg/kg	0.1	<0.1
		1,3-dichloropropane	mg/kg	0.1	<0.1
		Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1
		1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
		cis-1,4-dichloro-2-butene	mg/kg	1	<1
		1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
		1,2,3-trichloropropane	mg/kg	0.1	<0.1
		trans-1,4-dichloro-2-butene	mg/kg	1	<1
		1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1
		Hexachlorobutadiene	mg/kg	0.1	<0.1
	Halogenated Aromatics	Chlorobenzene	mg/kg	0.1	<0.1
		Bromobenzene	mg/kg	0.1	<0.1
		2-chlorotoluene	mg/kg	0.1	<0.1
		4-chlorotoluene	mg/kg	0.1	<0.1
		1,3-dichlorobenzene	mg/kg	0.1	<0.1
		1,4-dichlorobenzene	mg/kg	0.1	<0.1
		1,2-dichlorobenzene	mg/kg	0.1	<0.1
		1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
		1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
	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
		Styrene (Vinyl benzene)	mg/kg	0.1	<0.1
		Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1
		n-propylbenzene	mg/kg	0.1	<0.1
		1,3,5-trimethylbenzene	mg/kg	0.1	<0.1
		tert-butylbenzene	mg/kg	0.1	<0.1
		1,2,4-trimethylbenzene	mg/kg	0.1	<0.1
		sec-butylbenzene	mg/kg	0.1	<0.1
		p-isopropyltoluene	mg/kg	0.1	<0.1
		n-butylbenzene	mg/kg	0.1	<0.1
	Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1
		2-nitropropane	mg/kg	10	<10
	Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10
		MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1
		Vinyl acetate	mg/kg	10	<10
		MEK (2-butanone)	mg/kg	10	<10
		MIBK (4-methyl-2-pentanone)	mg/kg	1	<1
		2-hexanone (MBK)	mg/kg	5	<5
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1

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

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

VOC's in Soil (continued)

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

Sample Number		Parameter	Units	LOR	Result
LB190612.001	Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89
		d8-toluene (Surrogate)	%	-	95
		Bromofluorobenzene (Surrogate)	%	-	89
	Totals	Total BTEX	mg/kg	0.6	<0.6
		Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
		Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8
	Trihalomethanes	Chloroform	mg/kg	0.1	<0.1
		Bromodichloromethane	mg/kg	0.1	<0.1
		Chlorodibromomethane	mg/kg	0.1	<0.1
		Bromoform	mg/kg	0.1	<0.1

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result
LB190625.001	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5
	Hydrocarbons	Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	103
		d8-toluene (Surrogate)	%	-	108
		Bromofluorobenzene (Surrogate)	%	-	89

Volatile Petroleum Hydrocarbons in Soil

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

Sample Number		Parameter	Units	LOR	Result
LB190611.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	112
LB190612.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	89

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result
LB190625.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	103
		d8-toluene (Surrogate)	%	-	108
		Bromofluorobenzene (Surrogate)	%	-	89

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

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

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

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

Mercury in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201439.004	LB190649.014	Mercury	mg/kg	0.05	<0.05	<0.05	166	0
SE201439.013	LB190649.024	Mercury	mg/kg	0.05	<0.05	<0.05	146	0
SE201451.010	LB190648.014	Mercury	mg/kg	0.05	0.06	0.09	95	37
SE201451.019	LB190648.024	Mercury	mg/kg	0.05	0.23	0.20	54	13

Moisture Content

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201440.010	LB190621.011	% Moisture	%w/w	1	12.0	11.4	39	5
SE201441.021	LB190621.021	% Moisture	%w/w	1	11.8	11.8	38	0
SE201451.010	LB190624.011	% Moisture	%w/w	1	14.0	11.5	38	19
SE201451.020	LB190624.022	% Moisture	%w/w	1	11.5	10.3	39	11
SE201451.023	LB190624.026	% Moisture	%w/w	1	9.6	12.5	39	26

OC Pesticides in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.014	LB190620.033		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	0	200	0
			Alpha BHC	mg/kg	0.1	<0.1	0	200	0
			Lindane	mg/kg	0.1	<0.1	0	200	0
			Heptachlor	mg/kg	0.1	<0.1	0	200	0
			Aldrin	mg/kg	0.1	<0.1	0	200	0
			Beta BHC	mg/kg	0.1	<0.1	0	200	0
			Delta BHC	mg/kg	0.1	<0.1	0	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	0	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	0	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	0	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	0	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	0	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	0	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	0	200	0
			Dieldrin	mg/kg	0.2	<0.2	0	200	0
			Endrin	mg/kg	0.2	<0.2	0	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	0	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	0	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	0	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	0	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	0	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	0	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	0	200	0
			Methoxychlor	mg/kg	0.1	<0.1	0	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	0	200	0
			Isodrin	mg/kg	0.1	<0.1	0	200	0
			Mirex	mg/kg	0.1	<0.1	0	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	0	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.154	30	4
SE201451.023	LB190620.032		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0

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

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

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

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

OC Pesticides in Soil (continued)

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.023	LB190620.032		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	30	1

OP Pesticides in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.023	LB190620.032		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	20
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	28

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201440.010	LB190617.014		Naphthalene	mg/kg	0.1	2.3	3.0	34	28
			2-methylnaphthalene	mg/kg	0.1	2.0	2.5	34	22
			1-methylnaphthalene	mg/kg	0.1	1.1	1.4	38	20
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	148	0
			Fluorene	mg/kg	0.1	0.1	0.1	120	9
			Phenanthrene	mg/kg	0.1	0.2	0.2	83	17
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	0.1	0.1	103	15
			Pyrene	mg/kg	0.1	0.1	0.1	112	11
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	194	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	169	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	171	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	151	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	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	6.0	7.5	42	23
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	1
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	3
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	7
SE201441.021	LB190617.023		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

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201441.021	LB190617.023		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	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	7
SE201451.010	LB190620.014		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	0.1	120	35
			Pyrene	mg/kg	0.1	<0.1	0.1	127	27
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	142	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	192	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	6
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	6
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	4
SE201451.023	LB190620.032		Naphthalene	mg/kg	0.1	<0.1	0.1	131	7
			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	0.2	125	40
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	0.1	140	18
			Phenanthrene	mg/kg	0.1	0.7	1.1	41	52 ⑨
			Anthracene	mg/kg	0.1	0.1	0.2	90	57
			Fluoranthene	mg/kg	0.1	1.4	1.8	36	28
			Pyrene	mg/kg	0.1	1.5	1.8	36	20
			Benzo(a)anthracene	mg/kg	0.1	0.7	0.8	43	20
			Chrysene	mg/kg	0.1	0.5	0.9	44	43
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.5	0.8	45	43
			Benzo(k)fluoranthene	mg/kg	0.1	0.3	0.5	57	53
			Benzo(a)pyrene	mg/kg	0.1	0.6	1.0	42	45 ⑨
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.4	0.6	50	53 ⑨
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	0.1	128	21

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

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

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.023	LB190620.032		Benzo(ghi)perylene	mg/kg	0.1	0.5	0.8	46	48 ⑨
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	0.8	1.4	28	52 ⑨
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	0.9	1.4	36	42 ⑨
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	0.9	1.4	28	47 ⑨
			Total PAH (18)	mg/kg	0.8	7.1	11	39	41 ⑨
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	13
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	30	21
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	28

PCBs in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.014	LB190620.033		Arochlor 1016	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	0	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	0	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	0	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0.154	30	4
SE201451.023	LB190620.032		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	1

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.001	LB190771.004	Total Phenols	mg/kg	0.1	<0.1	0.5	51	129 ②

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 %
SE201439.004	LB190645.014	Arsenic, As	mg/kg	1	3	4	59	6
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	89	43	31	70 ②
		Copper, Cu	mg/kg	0.5	240	160	30	43 ②
		Nickel, Ni	mg/kg	0.5	170	150	30	15
		Lead, Pb	mg/kg	1	30	32	33	5
		Zinc, Zn	mg/kg	2	150	160	31	8
SE201439.013	LB190645.024	Arsenic, As	mg/kg	1	24	11	36	75 ②
		Cadmium, Cd	mg/kg	0.3	0.3	<0.3	168	2
		Chromium, Cr	mg/kg	0.5	26	26	32	1
		Copper, Cu	mg/kg	0.5	16	18	33	13
		Nickel, Ni	mg/kg	0.5	7.8	8.5	36	9
		Lead, Pb	mg/kg	1	10	12	39	19
		Zinc, Zn	mg/kg	2	36	41	35	14
SE201451.010	LB190644.014	Arsenic, As	mg/kg	1	1	1	112	35
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	10	11	35	11
		Copper, Cu	mg/kg	0.5	2.8	4.1	45	38
		Nickel, Ni	mg/kg	0.5	0.9	1.1	78	21
		Lead, Pb	mg/kg	1	13	18	36	30

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

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.010	LB190644.014		Zinc, Zn	mg/kg	2	110	110	32	2
SE201451.019	LB190644.024		Arsenic, As	mg/kg	1	5	4	52	29
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.5	11	7.6	35	33
			Copper, Cu	mg/kg	0.5	44	18	32	83 ②
			Nickel, Ni	mg/kg	0.5	7.1	6.2	38	14
			Lead, Pb	mg/kg	1	270	160	30	51 ②
			Zinc, Zn	mg/kg	2	150	84	32	58 ②

Trace Metals (Dissolved) in Water by ICPMS

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201471.020	LB190711.014	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	<5	<5	200	0

TRH (Total Recoverable Hydrocarbons) in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201440.010	LB190617.014		TRH C10-C14	mg/kg	20	100	150	46	34
			TRH C15-C28	mg/kg	45	<45	<45	141	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	150	119	27
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	82	110	56	33
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	80	110	56	35
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE201451.010	LB190620.014		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
SE201451.023	LB190620.032		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	120	130	66	7
			TRH C29-C36	mg/kg	45	<45	45	131	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	120	170	105	37
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	164	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	150	160	87	9
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

TRH (Total Recoverable Hydrocarbons) in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201445.002	LB190702.024		TRH C10-C14	µg/L	50	<50	<50	200	0
			TRH C15-C28	µg/L	200	<200	<200	200	0
			TRH C29-C36	µg/L	200	<200	<200	200	0
			TRH C37-C40	µg/L	200	<200	<200	200	0
			TRH C10-C40	µg/L	320	<320	<320	200	0
		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	<500	<500	200	0

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

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

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

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

TRH (Total Recoverable Hydrocarbons) in Water (continued)

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201445.002	LB190702.024	TRH F Bands	TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOC's in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201440.010	LB190611.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	0.1	126	24
			Ethylbenzene	mg/kg	0.1	0.8	1.6	38	63 ②
			m/p-xylene	mg/kg	0.2	4.9	8.7	33	57 ②
			o-xylene	mg/kg	0.1	2.6	4.5	33	55 ②
		Polycyclic	Naphthalene	mg/kg	0.1	1.8	2.8	34	46 ②
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.4	9.5	50	1
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.5	50	7
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.3	50	0
		Totals	Total Xylenes	mg/kg	0.3	7.4	13	33	56 ②
			Total BTEX	mg/kg	0.6	8.3	15	33	58 ②
SE201441.021	LB190611.025	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.4	10.6	50	2
			d8-toluene (Surrogate)	mg/kg	-	10.0	10.1	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.0	9.3	50	3
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE201451.010	LB190612.015	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	200	0
		Halogenated	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	200	0
		Aliphatics	Chloromethane	mg/kg	1	<1	<1	200	0
			Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	200	0
			Bromomethane	mg/kg	1	<1	<1	200	0
			Chloroethane	mg/kg	1	<1	<1	200	0
			Trichlorofluoromethane	mg/kg	1	<1	<1	200	0
			Iodomethane	mg/kg	5	<5	<5	200	0
			1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	200	0
			Allyl chloride	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Bromochloromethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	200	0
			Dibromomethane	mg/kg	0.1	<0.1	<0.1	200	0
			Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	200	0

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.010	LB190612.015	Halogenated	Chlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatics	Bromobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
			Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	200	0
			Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	200	0
			n-propylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	200	0
			n-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Nitrogenous	Acrylonitrile	mg/kg	0.1	<0.1	<0.1	200	0
		Compounds	2-nitropropane	mg/kg	10	<10	<10	200	0
		Oxygenated	Acetone (2-propanone)	mg/kg	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	200	0
			Vinyl acetate	mg/kg	10	<10	<10	200	0
			MEK (2-butanone)	mg/kg	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	200	0
			2-hexanone (MBK)	mg/kg	5	<5	<5	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.5	8.0	50	6
			d8-toluene (Surrogate)	mg/kg	-	7.6	8.1	50	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.2	8.1	50	1
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
			Total VOC*	mg/kg	24	<24	<24	200	0
			Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	200	0
			Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0
			Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0
		Trihalomethan	Chloroform	mg/kg	0.1	<0.1	<0.1	200	0
		es	Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	200	0
			Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	200	0
			Bromoform	mg/kg	0.1	<0.1	<0.1	200	0
SE201451.023	LB190612.032	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	200	0
		Halogenated	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	200	0
		Aliphatics	Chloromethane	mg/kg	1	<1	<1	200	0
			Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	200	0
			Bromomethane	mg/kg	1	<1	<1	200	0
			Chloroethane	mg/kg	1	<1	<1	200	0
			Trichlorofluoromethane	mg/kg	1	<1	<1	200	0
			Iodomethane	mg/kg	5	<5	<5	200	0
			1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	200	0
			Allyl chloride	mg/kg	0.1	<0.1	<0.1	200	0

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.023	LB190612.032	Halogenated	trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
		Aliphatics	1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	200	0
			Bromochloromethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	200	0
			Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	200	0
			Dibromomethane	mg/kg	0.1	<0.1	<0.1	200	0
			Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	200	0
			1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	200	0
			1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	200	0
			Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	200	0
		Halogenated	Chlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatics	Bromobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	188	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
			Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	200	0
			Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	200	0
			n-propylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	200	0
			n-butylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
		Nitrogenous	Acrylonitrile	mg/kg	0.1	<0.1	<0.1	200	0
		Compounds	2-nitropropane	mg/kg	10	<10	<10	200	0
		Oxygenated	Acetone (2-propanone)	mg/kg	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	200	0
			Vinyl acetate	mg/kg	10	<10	<10	200	0
			MEK (2-butanone)	mg/kg	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	200	0
			2-hexanone (MBK)	mg/kg	5	<5	<5	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.8	7.4	50	6
			d8-toluene (Surrogate)	mg/kg	-	7.9	7.2	50	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.2	50	11
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
			Total VOC*	mg/kg	24	<24	<24	200	0
			Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	200	0
			Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0

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

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

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

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

VOC's in Soil (continued)

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201451.023	LB190612.032	Totals	Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	200	0
		Trihalomethan	Chloroform	mg/kg	0.1	<0.1	<0.1	200	0
		es	Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	200	0
			Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	200	0
			Bromoform	mg/kg	0.1	<0.1	<0.1	200	0

VOCs in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201360.005	LB190625.023	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	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	9	30	10
			d8-toluene (Surrogate)	µg/L	-	10	12	30	15
			Bromofluorobenzene (Surrogate)	µg/L	-	10	10	30	6
SE201361.009	LB190625.024	Monocyclic	Benzene	µg/L	0.5	0	0	200	0
		Aromatic	Toluene	µg/L	0.5	0	0	200	0
			Ethylbenzene	µg/L	0.5	0	0	200	0
			m/p-xylene	µg/L	1	0	0	200	0
			o-xylene	µg/L	0.5	0	0	200	0
		Polycyclic	Naphthalene	µg/L	0.5	0	0	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.72052922029	9.7307023884	30	0
			d8-toluene (Surrogate)	µg/L	-	11.0309431987	11.3862758577	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10.0174144783	9.6064171528	30	4

Volatile Petroleum Hydrocarbons in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201440.010	LB190611.014		TRH C6-C10	mg/kg	25	85	160	50	62 ②
			TRH C6-C9	mg/kg	20	72	140	49	63 ②
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.4	9.5	30	1
			d8-toluene (Surrogate)	mg/kg	-	8.9	9.5	30	7
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.3	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	77	150	52	62 ②
SE201441.021	LB190611.025		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.4	10.6	30	2
			d8-toluene (Surrogate)	mg/kg	-	10.0	10.1	30	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.0	9.3	30	3
		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
SE201451.010	LB190612.015		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	-	7.5	8.0	30	6
			d8-toluene (Surrogate)	mg/kg	-	7.6	8.1	30	6
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.2	8.1	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
SE201451.023	LB190612.032		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	7.4	30	6
			d8-toluene (Surrogate)	mg/kg	-	7.9	7.2	30	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.0	7.2	30	11
		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

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

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

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

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

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE201360.005	LB190625.023		TRH C6-C10	µg/L	50	130	140	67	9
			TRH C6-C9	µg/L	40	110	130	63	10
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	9.5	30	10
			d8-toluene (Surrogate)	µg/L	-	10	12	30	15
			Bromofluorobenzene (Surrogate)	µg/L	-	9.6	10	30	6
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	130	140	67	9
SE201361.009	LB190625.024		TRH C6-C10	µg/L	50	9.097838529312.8215728697		200	0
			TRH C6-C9	µg/L	40	1.89715521645.3669596007		200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.72052922029.7307023884		30	0
			d8-toluene (Surrogate)	µg/L	-	11.030943198711.3862758577		30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	10.01741447839.6064171528		30	4
		VPH F Bands	Benzene (F0)	µg/L	0.5	0	0	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	9.097838529312.8215728697		200	0

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

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

Mercury in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190648.002	Mercury	mg/kg	0.05	0.23	0.2	70 - 130	115
LB190649.002	Mercury	mg/kg	0.05	0.22	0.2	70 - 130	111

OC Pesticides in Soil

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190620.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	116
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	115
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	115
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	115
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	115
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	100
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	40 - 130	91

OP Pesticides in Soil

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190620.002		Dichlorvos	mg/kg	0.5	1.5	2	60 - 140	75
		Diazinon (Dimpylate)	mg/kg	0.5	1.6	2	60 - 140	78
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.6	2	60 - 140	79
		Ethion	mg/kg	0.2	1.4	2	60 - 140	71
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	88
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	90

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190617.002		Naphthalene	mg/kg	0.1	4.0	4	60 - 140	100
		Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	103
		Acenaphthene	mg/kg	0.1	4.3	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	4.2	4	60 - 140	105
		Anthracene	mg/kg	0.1	4.0	4	60 - 140	101
		Fluoranthene	mg/kg	0.1	3.8	4	60 - 140	95
		Pyrene	mg/kg	0.1	4.0	4	60 - 140	100
		Benzo(a)pyrene	mg/kg	0.1	4.5	4	60 - 140	113
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	83
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	93
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	81
LB190620.002		Naphthalene	mg/kg	0.1	3.9	4	60 - 140	97
		Acenaphthylene	mg/kg	0.1	4.2	4	60 - 140	106
		Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	106
		Phenanthrene	mg/kg	0.1	3.8	4	60 - 140	95
		Anthracene	mg/kg	0.1	3.7	4	60 - 140	93
		Fluoranthene	mg/kg	0.1	3.8	4	60 - 140	94
		Pyrene	mg/kg	0.1	4.4	4	60 - 140	109
		Benzo(a)pyrene	mg/kg	0.1	4.6	4	60 - 140	114
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	74
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	81
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	73

PCBs in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190620.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	91

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190771.002	Total Phenols	mg/kg	0.1	2.4	2.5	70 - 130	97
LB190824.002	Total Phenols	mg/kg	0.1	2.7	2.5	70 - 130	107

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

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

Sample Number	Parameter	Units	LOR

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

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

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

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190644.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	104
	Cadmium, Cd	mg/kg	0.3	5.7	5.41	80 - 120	106
	Chromium, Cr	mg/kg	0.5	34	38.31	80 - 120	90
	Copper, Cu	mg/kg	0.5	300	290	80 - 120	104
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	99
	Lead, Pb	mg/kg	1	95	89.9	80 - 120	106
	Zinc, Zn	mg/kg	2	270	273	80 - 120	98
LB190645.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	105
	Cadmium, Cd	mg/kg	0.3	5.7	5.41	80 - 120	105
	Chromium, Cr	mg/kg	0.5	37	38.31	80 - 120	96
	Copper, Cu	mg/kg	0.5	290	290	80 - 120	101
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	98
	Lead, Pb	mg/kg	1	94	89.9	80 - 120	104
	Zinc, Zn	mg/kg	2	270	273	80 - 120	99

Trace Metals (Dissolved) in Water by ICPMS

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190711.002	Arsenic, As	µg/L	1	19	20	80 - 120	96
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	104
	Chromium, Cr	µg/L	1	21	20	80 - 120	106
	Copper, Cu	µg/L	1	21	20	80 - 120	107
	Lead, Pb	µg/L	1	21	20	80 - 120	107
	Nickel, Ni	µg/L	1	20	20	80 - 120	101
	Zinc, Zn	µg/L	5	22	20	80 - 120	108

TRH (Total Recoverable Hydrocarbons) in Soil

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190617.002		TRH C10-C14	mg/kg	20	36	40	60 - 140	90
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	103
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	63
	TRH F Bands	TRH >C10-C16	mg/kg	25	35	40	60 - 140	88
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	95
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	60
LB190620.002		TRH C10-C14	mg/kg	20	40	40	60 - 140	100
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	95
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	75
	TRH F Bands	TRH >C10-C16	mg/kg	25	40	40	60 - 140	100
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	88
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	85

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190702.002		TRH C10-C14	µg/L	50	820	1200	60 - 140	69
		TRH C15-C28	µg/L	200	1000	1200	60 - 140	87
		TRH C29-C36	µg/L	200	1400	1200	60 - 140	113
	TRH F Bands	TRH >C10-C16	µg/L	60	910	1200	60 - 140	76
		TRH >C16-C34 (F3)	µg/L	500	1400	1200	60 - 140	114
		TRH >C34-C40 (F4)	µg/L	500	630	600	60 - 140	105

VOC's in Soil

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190611.002	Halogenated Aliphatics	1,1-dichloroethene	mg/kg	0.1	4.0	5	60 - 140	80
		1,2-dichloroethane	mg/kg	0.1	4.3	5	60 - 140	85
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	3.8	5	60 - 140	76
	Halogenated Monocyclic Aromatic	Chlorobenzene	mg/kg	0.1	4.8	5	60 - 140	96
		Benzene	mg/kg	0.1	4.3	5	60 - 140	85
		Toluene	mg/kg	0.1	4.3	5	60 - 140	85
		Ethylbenzene	mg/kg	0.1	4.3	5	60 - 140	86
		m/p-xylene	mg/kg	0.2	8.5	10	60 - 140	85
		o-xylene	mg/kg	0.1	4.3	5	60 - 140	86
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.8	10	70 - 130	118
		d8-toluene (Surrogate)	mg/kg	-	11.4	10	70 - 130	114
		Bromofluorobenzene (Surrogate)	mg/kg	-	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.

VOC's in Soil (continued)

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190611.002	Trihalomethan	Chloroform	mg/kg	0.1	5.1	5	60 - 140	103
LB190612.002	Halogenated	1,1-dichloroethene	mg/kg	0.1	4.7	5	60 - 140	95
	Aliphatics	1,2-dichloroethane	mg/kg	0.1	4.9	5	60 - 140	97
		Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	4.7	5	60 - 140	95
	Halogenated	Chlorobenzene	mg/kg	0.1	5.7	5	60 - 140	113
	Monocyclic	Benzene	mg/kg	0.1	4.8	5	60 - 140	96
	Aromatic	Toluene	mg/kg	0.1	4.8	5	60 - 140	97
		Ethylbenzene	mg/kg	0.1	4.9	5	60 - 140	98
		m/p-xylene	mg/kg	0.2	9.8	10	60 - 140	98
		o-xylene	mg/kg	0.1	4.9	5	60 - 140	98
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	10	70 - 130	82
		d8-toluene (Surrogate)	mg/kg	-	8.8	10	70 - 130	88
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	10	70 - 130	93
	Trihalomethan	Chloroform	mg/kg	0.1	5.0	5	60 - 140	101

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190625.002	Monocyclic	Benzene	µg/L	0.5	44	45.45	60 - 140	97
	Aromatic	Toluene	µg/L	0.5	47	45.45	60 - 140	103
		Ethylbenzene	µg/L	0.5	46	45.45	60 - 140	101
		m/p-xylene	µg/L	1	96	90.9	60 - 140	106
		o-xylene	µg/L	0.5	47	45.45	60 - 140	103
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.7	10	60 - 140	87
		d8-toluene (Surrogate)	µg/L	-	11.2	10	70 - 130	112
		Bromofluorobenzene (Surrogate)	µg/L	-	10.0	10	70 - 130	100

Volatile Petroleum Hydrocarbons in Soil

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190611.002		TRH C6-C10	mg/kg	25	86	92.5	60 - 140	93
		TRH C6-C9	mg/kg	20	76	80	60 - 140	95
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	11.8	10	70 - 130	118
		Bromofluorobenzene (Surrogate)	mg/kg	-	10.7	10	70 - 130	107
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	61	62.5	60 - 140	97
LB190612.002		TRH C6-C10	mg/kg	25	71	92.5	60 - 140	76
		TRH C6-C9	mg/kg	20	63	80	60 - 140	78
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	10	70 - 130	82
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	10	70 - 130	93
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	62.5	60 - 140	66

Volatile Petroleum Hydrocarbons in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB190625.002		TRH C6-C10	µg/L	50	940	946.63	60 - 140	99
		TRH C6-C9	µg/L	40	780	818.71	60 - 140	95
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.7	10	60 - 140	87
		d8-toluene (Surrogate)	µg/L	-	11.2	10	70 - 130	112
		Bromofluorobenzene (Surrogate)	µg/L	-	10.0	10	70 - 130	100
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	660	639.67	60 - 140	103

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

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

Mercury (dissolved) in Water

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201352.008	LB190720.004	Mercury	mg/L	0.0001	0.0078	<0.0001	0.008	98

Mercury in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.020	LB190649.004	Mercury	mg/kg	0.05	0.29	0.10	0.2	94

OC Pesticides in Soil

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.001	LB190620.004		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.3	<0.1	0.2	140
			Aldrin	mg/kg	0.1	0.3	<0.1	0.2	135
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.3	<0.1	0.2	133
			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	0.3	<0.2	0.2	140
			Endrin	mg/kg	0.2	0.3	<0.2	0.2	140
			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	0.3	<0.1	0.2	130
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	2	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.14	-	104

OP Pesticides in Soil

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.001	LB190620.004		Dichlorvos	mg/kg	0.5	1.9	<0.5	2	95
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	1.7	<0.5	2	85
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.5	<0.2	2	124
			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	1.5	<0.2	2	69
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	7.6	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	87
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	76

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR

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

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

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201440.001	LB190617.004		Naphthalene	mg/kg	0.1	4.5	<0.1	4	111
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	4.6	<0.1	4	116
			Acenaphthene	mg/kg	0.1	4.5	<0.1	4	113
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.6	<0.1	4	114
			Anthracene	mg/kg	0.1	4.3	<0.1	4	106
			Fluoranthene	mg/kg	0.1	4.3	<0.1	4	107
			Pyrene	mg/kg	0.1	4.5	<0.1	4	113
			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	5.0	<0.1	4	126
			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	5.0	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	5.2	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	5.1	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	36	<0.8	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	86
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	-	91
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	79
SE201451.001	LB190620.004		Naphthalene	mg/kg	0.1	5.2	1.4	4	96
			2-methylnaphthalene	mg/kg	0.1	0.4	0.4	-	-
			1-methylnaphthalene	mg/kg	0.1	0.3	0.3	-	-
			Acenaphthylene	mg/kg	0.1	4.2	<0.1	4	103
			Acenaphthene	mg/kg	0.1	4.5	<0.1	4	110
			Fluorene	mg/kg	0.1	0.2	0.1	-	-
			Phenanthrene	mg/kg	0.1	4.5	0.3	4	104
			Anthracene	mg/kg	0.1	3.8	<0.1	4	94
			Fluoranthene	mg/kg	0.1	4.3	0.2	4	102
			Pyrene	mg/kg	0.1	4.6	0.2	4	110
			Benzo(a)anthracene	mg/kg	0.1	0.2	0.1	-	-
			Chrysene	mg/kg	0.1	0.2	<0.1	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.1	<0.1	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	0.1	<0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	4.2	<0.1	4	102
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	0.1	<0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	4.2	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.3	<0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.3	<0.2	-	-
			Total PAH (18)	mg/kg	0.8	37	3.0	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	78
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	87
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	76

PCBs in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.001	LB190620.004	Arochlor 1016	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1221	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1260	mg/kg	0.2	0.3	<0.2	0.4	78
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-

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

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

PCBs in Soil (continued)

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.001	LB190620.004		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	99

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.022	LB190771.019	Total Phenols	mg/kg	0.1	1.9	<0.1	2.5	77

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%
SE201451.001	LB190644.004	Arsenic, As	mg/kg	1	55	7	50	95
		Cadmium, Cd	mg/kg	0.3	48	<0.3	50	96
		Chromium, Cr	mg/kg	0.5	77	29	50	95
		Copper, Cu	mg/kg	0.5	140	100	50	75
		Nickel, Ni	mg/kg	0.5	92	34	50	116
		Lead, Pb	mg/kg	1	140	110	50	65 ⑤
		Zinc, Zn	mg/kg	2	210	150	50	111
SE201451.020	LB190645.004	Arsenic, As	mg/kg	1	57	8	50	97
		Cadmium, Cd	mg/kg	0.3	45	0.4	50	90
		Chromium, Cr	mg/kg	0.5	100	68	50	69 ⑨
		Copper, Cu	mg/kg	0.5	160	74	50	174 ⑨
		Nickel, Ni	mg/kg	0.5	64	14	50	100
		Lead, Pb	mg/kg	1	1800	2500	50	-1427 ⑨
		Zinc, Zn	mg/kg	2	910	1000	50	-256 ⑨

Trace Metals (Dissolved) in Water by ICPMS

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201011A.02	LB190711.004	Arsenic, As	µg/L	1	20	<1	20	100
4		Cadmium, Cd	µg/L	0.1	21	<0.1	20	107
		Chromium, Cr	µg/L	1	22	<1	20	109
		Copper, Cu	µg/L	1	23	<1	20	112
		Lead, Pb	µg/L	1	22	<1	20	108
		Nickel, Ni	µg/L	1	21	<1	20	105
		Zinc, Zn	µg/L	5	25	<5	20	118

TRH (Total Recoverable Hydrocarbons) in Soil

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201440.001	LB190617.004		TRH C10-C14	mg/kg	20	36	<20	40	90
			TRH C15-C28	mg/kg	45	52	<45	40	106
			TRH C29-C36	mg/kg	45	<45	<45	40	103
			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	35	<25	40	88
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	35	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	126
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE201451.001	LB190620.004		TRH C10-C14	mg/kg	20	200	170	40	70
			TRH C15-C28	mg/kg	45	390	380	40	20 ⑨
			TRH C29-C36	mg/kg	45	<45	<45	40	78
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	580	550	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	570	540	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	260	240	40	63
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	260	240	-	-
			TRH >C16-C34 (F3)	mg/kg	90	310	300	40	10 ⑨
			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

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

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

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201440.001	LB190611.004	Monocyclic	Benzene	mg/kg	0.1	3.6	<0.1	5	71
		Aromatic	Toluene	mg/kg	0.1	3.6	<0.1	5	71
			Ethylbenzene	mg/kg	0.1	3.7	<0.1	5	74
			m/p-xylene	mg/kg	0.2	7.7	0.2	10	75
			o-xylene	mg/kg	0.1	3.8	<0.1	5	75
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	10.5	10	103
			d8-toluene (Surrogate)	mg/kg	-	10.0	10.1	10	100
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	9.6	10	96
		Totals	Total Xylenes	mg/kg	0.3	12	<0.3	-	-
			Total BTEX	mg/kg	0.6	22	<0.6	-	-
SE201451.001	LB190612.005	Fumigants	2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	-	-
			1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	-	-
			cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	-	-
			trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	-	-
			1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	-	-
		Halogenated	Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	-	-
		Aliphatics	Chloromethane	mg/kg	1	<1	<1	-	-
			Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	-	-
			Bromomethane	mg/kg	1	<1	<1	-	-
			Chloroethane	mg/kg	1	<1	<1	-	-
			Trichlorofluoromethane	mg/kg	1	<1	<1	-	-
			Iodomethane	mg/kg	5	<5	<5	-	-
			1,1-dichloroethene	mg/kg	0.1	4.7	<0.1	5	95
			Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	-	-
			Allyl chloride	mg/kg	0.1	<0.1	<0.1	-	-
			trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	-	-
			1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	-	-
			cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	-	-
			Bromochloromethane	mg/kg	0.1	<0.1	<0.1	-	-
			1,2-dichloroethane	mg/kg	0.1	4.8	<0.1	5	97
			1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	-	-
			1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	-	-
			Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	-	-
			Dibromomethane	mg/kg	0.1	<0.1	<0.1	-	-
			Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	4.7	<0.1	5	95
			1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	-	-
			1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	-	-
			Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	-	-
			1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	-	-
			cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	-	-
			1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	-	-
			1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	-	-
			1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	-	-
			Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	-	-
		Halogenated	Chlorobenzene	mg/kg	0.1	5.6	<0.1	5	112
		Aromatics	Bromobenzene	mg/kg	0.1	<0.1	<0.1	-	-
			2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	-	-
			4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	-	-
			1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-
			1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-
			1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-
			1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-
			1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	-	-
		Monocyclic	Benzene	mg/kg	0.1	3.6	<0.1	5	71
		Aromatic	Toluene	mg/kg	0.1	3.7	0.1	5	72
			Ethylbenzene	mg/kg	0.1	3.9	0.4	5	70
			m/p-xylene	mg/kg	0.2	7.7	0.6	10	71
			o-xylene	mg/kg	0.1	3.9	0.1	5	76
			Styrene (Vinyl benzene)	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 identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.001	LB190612.005	Monocyclic Aromatic	Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	-	-
			n-propylbenzene	mg/kg	0.1	<0.1	<0.1	-	-
			1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	-	-
			tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	-	-
			1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	-	-
			sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	-	-
			p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	-	-
			n-butylbenzene	mg/kg	0.1	<0.1	<0.1	-	-
		Nitrogenous Compounds	Acrylonitrile	mg/kg	0.1	<0.1	<0.1	-	-
			2-nitropropane	mg/kg	10	<10	<10	-	-
		Oxygenated Compounds	Acetone (2-propanone)	mg/kg	10	<10	<10	-	-
			MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	-	-
			Vinyl acetate	mg/kg	10	<10	<10	-	-
			MEK (2-butanone)	mg/kg	10	<10	<10	-	-
			MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	-	-
			2-hexanone (MBK)	mg/kg	5	<5	<5	-	-
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	0.3	-	-
		Sulphonated	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.5	10.3	10	75
			d8-toluene (Surrogate)	mg/kg	-	7.9	10.1	10	79
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.9	9.1	10	79
		Totals	Total Xylenes	mg/kg	0.3	12	0.8	-	-
			Total BTEX	mg/kg	0.6	23	1.3	-	-
			Total VOC*	mg/kg	24	49	<24	-	-
			Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	-	-
			Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	25	<1.8	-	-
			Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	25	<1.8	-	-
		Trihalomethanes	Chloroform	mg/kg	0.1	5.0	<0.1	5	100
			Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	-	-
			Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	-	-
			Bromoform	mg/kg	0.1	<0.1	<0.1	-	-

VOCs in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.026	LB190625.025	Monocyclic Aromatic	Benzene	µg/L	0.5	44	<0.5	45.45	96
			Toluene	µg/L	0.5	49	<0.5	45.45	109
			Ethylbenzene	µg/L	0.5	51	<0.5	45.45	113
			m/p-xylene	µg/L	1	100	<1	90.9	114
			o-xylene	µg/L	0.5	53	<0.5	45.45	116
		Polycyclic	Naphthalene	µg/L	0.5	53	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8	10.0	-	84
			d8-toluene (Surrogate)	µg/L	-	10	10.2	-	105
			Bromofluorobenzene (Surrogate)	µg/L	-	10	9.4	-	99

Volatile Petroleum Hydrocarbons in Soil

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201440.001	LB190611.004		TRH C6-C10	mg/kg	25	71	<25	92.5	74
			TRH C6-C9	mg/kg	20	64	<20	80	77
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	10.5	10	103
			d8-toluene (Surrogate)	mg/kg	-	10.0	10.1	10	100
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.6	9.6	-	96
		VPH F Bands	Benzene (F0)	mg/kg	0.1	3.6	<0.1	-	-
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	48	<25	62.5	74
SE201451.001	LB190612.005		TRH C6-C10	mg/kg	25	78	<25	92.5	64
			TRH C6-C9	mg/kg	20	64	<20	80	63
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.5	10.3	10	75
			d8-toluene (Surrogate)	mg/kg	-	7.9	10.1	10	79
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.9	9.1	-	79
		VPH F Bands	Benzene (F0)	mg/kg	0.1	3.6	<0.1	-	-
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	55	<25	62.5	61

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

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

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

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE201451.026	LB190625.025		TRH C6-C10	µg/L	50	910	<50	946.63	95
			TRH C6-C9	µg/L	40	750	<40	818.71	92
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	0.0	10.0	-	84
			d8-toluene (Surrogate)	µg/L	-	0.0	10.2	-	105
			Bromofluorobenzene (Surrogate)	µg/L	-	0.0	9.4	-	99
		VPH F	Benzene (F0)	µg/L	0.5	44	<0.5	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	610	<50	639.67	93

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

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

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

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

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

QC Sample	Sample Number	Parameter	Units	LOR

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: 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.
-	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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Appendix L - QA/QC Assessment

L.1 Quality Assurance / Quality Control Program

L.1.1 Introduction

For the purpose of assessing the quality of data presented in this Contaminant Delineation Report, EI collected field QC samples for analysis. The primary laboratory, SGS Australia Pty Ltd (SGS) and secondary laboratory, Envirolab Services Pty Ltd (Envirolab) also prepared and analysed internal QC samples. Details of the field and laboratory QC samples, with the allowable data acceptance ranges are presented in **Table L-1**.

Table L.1 Sampling Data Quality Indicators

QA/QC Measures	Data Quality Indicators
Precision – A quantitative measure of the variability (or reproducibility) of data	Data precision would be assessed by reviewing the performance of blind field duplicate sample sets, through calculation of relative percentage differences (RPD). Data precision would be deemed acceptable if RPDs are found to be less than 30%. RPDs that exceed this range may be considered acceptable where: ▪ Results are less than 10 times the limits of reporting (LOR); ▪ Results are less than 20 times the LOR and the RPD is less than 50%; or ▪ Heterogeneous materials or volatile compounds are encountered.
Accuracy – A quantitative measure of the closeness of reported data to the "true" value	Data accuracy would be assessed through the analysis of: ▪ Method blanks, which are analysed for the analytes targeted in the primary samples; ▪ Matrix spike and matrix spike duplicate sample sets; ▪ Laboratory control samples; and ▪ Calibration of instruments against known standards.
Representativeness – The confidence (expressed qualitatively) that data are representative of each medium present onsite	To ensure the data produced by the laboratory is representative of conditions encountered in the field, the laboratory would carry out the following: ▪ Blank samples will be run in parallel with field samples to confirm there are no unacceptable instances of laboratory artefacts; ▪ Review of relative percentage differences (RPD) values for field and laboratory duplicates to provide an indication that the samples are generally homogeneous, with no unacceptable instances of significant sample matrix heterogeneities; and ▪ The appropriateness of collection methodologies, handling, storage and preservation techniques will be assessed to ensure/confirm there was minimal opportunity for sample interference or degradation (i.e. volatile loss during transport due to incorrect preservation / transport methods).
Completeness – A measure of the amount of useable data from a data collection activity	Analytical data sets acquired during the assessment will be evaluated as complete, upon confirmation that: ▪ Standard operating procedures (SOPs) for sampling protocols were adhered to; and ▪ Copies of all COC documentation are presented, reviewed and found to be properly completed. It can therefore be considered whether the proportion of "useable data" generated in the data collection activities is sufficient for the purposes of the land use assessment.
Comparability – The confidence (expressed qualitatively) that data may be	Given that a reported data set can comprise several data sets from separate sampling episodes, issues of comparability between data sets are reduced through adherence to SOPs and regulator-endorsed or published

QA/QC Measures	Data Quality Indicators
considered to be equivalent for each sampling and analytical event	guidelines and standards on each data gathering activity. In addition, the data will be collected by experienced samplers and NATA-accredited laboratory methodologies will be employed in all laboratory testing programs.

L.1.2 Calculation of Relative Percentage Difference (RPD)

The RPD values were calculated using the following equation:

$$RPD = \frac{|C_O - C_R|}{[(C_O + C_R)/2]} \times 100$$

Where:

C_O = Concentration obtained for the primary sample; and

C_R = Concentration obtained for the blind replicate or split duplicate sample.

L.2 Field QA/QC Data Evaluation

The field quality assurance/quality control (QA/QC) soil and groundwater samples collected during the investigations were as follows:

- Blind field duplicates;
- Inter-laboratory duplicates;
- Trip blanks;
- Trip spikes; and
- Rinsate blanks.

Analytical results for tested soil and groundwater QA/QC samples, including calculated RPD values between primary and duplicate samples, are presented in **Table L-2** and **Table L-3**, respectively.

L.2.1 Soil Investigation

L.2.1.1 Blind Field Duplicates

One blind field duplicate (BFD) soil sample was collected, as follows:

- Sample QD1 was collected from the primary sample BH10_0.3-0.4 on 17 December 2019;

The preparation of the BFD samples involved the collection of a bulk quantity of soil from the same sampling point without mixing, before dividing the material into identical sampling vessels. The duplicate samples were then presented blind to the primary laboratory (SGS) to avoid any potential analytical bias. BFD soil samples were analysed for TRHs, BTEX, selected heavy metals, and calculated RPD values were found to be within the Data Acceptance Criteria (**Appendix K**), with the exception of Copper (136.17%), Lead (155.56%), Nickel (129.41%) and Zinc (113.25%). These results were considered to reflect the non-homogenous nature of the fill material, which is a typical characteristic of disturbed fill soils in Sydney's older, urban-industrial precincts.

L.2.1.2 Inter-Laboratory Duplicate

Sample QT1 was collected as an inter-laboratory duplicate (ILD) of the primary sample BH10_0.3-0.4 on 17 December 2019. The preparation of the ILD sample was identical to the BFD sample, as described above, and was analysed for TRH, BTEX and heavy metals, and calculated RPD values were found to be within the Data Acceptance Criteria (**Appendix K**), with the exception of Copper (133.33%), Lead (142.86%), Nickel (85.71%) and Zinc (64.15%). These results were considered to reflect the non-homogenous nature of the fill material, which is a typical characteristic of disturbed fill soils in Sydney's older, urban-industrial precincts

Furthermore, soil samples were placed immediately into jars following sampling to reduce the loss of volatiles from samples. Analytical results indicated that the samples collected were representative of the soils present at respective sampling locations.

L.2.1.3 Trip Blank

One trip blank (QTB1) sample was prepared and analysed by the primary laboratory for BTEX. Analytical results for this sample were below the laboratory LOR, indicating that ideal sample transport and handling conditions were achieved.

L.2.1.4 Trip Spike

One trip spike (QTS1) sample was submitted to the primary laboratory for BTEX analysis, the results for which were reported within the RPD acceptance levels for trip spike recovery. It was therefore concluded that satisfactory sample transport and handling conditions were achieved.

L.2.1.5 Rinsate Blank

One rinsate blank (QR1) sample was submitted to the primary laboratory for TRH, BTEX and heavy metals analysis, the results for which were reported below laboratory LOR; therefore, it was concluded that decontamination procedures performed during the field works had been effective.

L.2.2 Groundwater Investigation

L.2.2.1 Blind Field Duplicates

One groundwater BFD sample was collected, as follows:

- Sample GWQD1 was collected from the primary sample BH3M-1 on 10 January 2020.

The preparation of BFD samples involved the decanting of the groundwater collected from the respective monitoring well into two separate groups of appropriately labelled sampling containers. Volumes were split equally between the groups of sampling bottles such that the sample contained in each individual bottle, contained a similar proportion of each water volume. Sample mixing did not occur prior to decanting, in order to preserve the concentrations of volatiles potentially present within the sample. The duplicate sample was then presented blind to the primary laboratory (SGS) to avoid any potential analytical bias. The BFDs were analysed for TRHs, BTEX and selected heavy metals. The RPD values calculated for all the analytes tested were found to be within the Data Acceptance Criteria (DAC). As such, overall data quality was considered to be acceptable, in accordance with the laboratory DQOs presented in **Appendix K**

L.2.2.2 Inter-Laboratory Duplicate

One ILD sample was collected as follows:

- During fieldwork on 10 January 2020 the primary sample BH3M-1 was split to form ILD sample GWQT1

The preparation of a groundwater ILD sample was identical to the BFD sample as described above and also analysed for TRHs, BTEX, selected heavy metals. The RPD values calculated for the ILD samples were found to be within the Data Acceptance Criteria. Therefore, overall data quality was considered to be acceptable, in accordance with the laboratory DQOs presented in **Appendix K, Table QC5**.

L.2.2.3 Trip Blanks

One trip blank (TB) samples (GWQTB1), prepared by the primary laboratory, was analysed for BTEX by the primary laboratory during groundwater testing. TB results were reported below the laboratory LOR, indicating that ideal sample transport and handling conditions were achieved.

L.2.2.4 Trip Spikes

One TS samples (GWQTS1) was submitted to the primary laboratory for BTEX analysis, the results for which were all reported within the RPD acceptance levels for trip spike recovery. It was therefore concluded that satisfactory sample transport and handling conditions were achieved.

L.2.2.5 Rinsate Blanks

One RB sample (GWQR1) was submitted to the primary laboratory for TRHs, BTEX and selected heavy metals analyses. Analytical results were reported below the laboratory LOR for most analytes.

L.2.3 Assessment of Field QA/QC Data

Based on the results of the field QA/QC data EI considered the field QA/QC programme carried out during the data gap closure investigations to be appropriate and the results to be acceptable.

L.3 LABORATORY QA/QC

L.3.1 Laboratory Accreditation

To undertake all analytical testing, EI commissioned SGS as the primary laboratory and Envirolab as the secondary laboratory. SGS and Envirolab, both established analytical laboratories which operate in accordance with the guidelines set out in ISO/IEC Guide 25 “General requirements for the competence of calibration and testing laboratories”, conducted all respective analyses using National Association Testing Authorities (NATA)-registered procedures.

In relation to contingencies, should the pre-determined DQOs not be achieved, in accordance with each laboratory’s QC policy (**Appendix K**), respective tests would be accordingly repeated. Should the results again fall outside the DQOs, then sample heterogeneity may be assumed and written comment will be provided to this effect on the final laboratory certificate. The laboratory QA/QC reports are included in **Appendix K**.

L.3.2 Sample Holding Times

Sample holding times were generally within the laboratory DQOs, which were consistent with standard environmental protocols as tabulated in **Appendix K**, **Tables QC1** and **QC2**. Extraction dates for pH, turbidity, PAHs and TRHs for the groundwater samples collected on 3 September 2021 were pasted the extraction date.

L.3.3 Test Methods and Practical Quantitation Limits (PQLs)

Practical Quantitation Limits for all tested parameters during the assessment of soils and groundwater are presented in **Appendix K**, **Tables QC3** and **QC4**.

L.3.4 Method Blanks

Concentrations of all parameters in method blanks during the assessment were below the laboratory PQLs and were therefore within the DAC.

L.3.5 Laboratory Duplicate Samples

The Laboratory Control Samples (LCS) for the analysis batches showed calculated RPDs that were within acceptable ranges and conformed to the DAC.

The PAH concentrations for soil sample SE201451.023 exceeded the acceptable RPD range due to sample heterogeneity, and the TRH concentrations for soil sample SE201451.019 exceeded the acceptable RPD range due to sample heterogeneity.

The PAH concentrations for groundwater sample SE201694.001 exceeded the acceptable RPD range.

L.3.6 Laboratory Control Samples

The Laboratory Control Samples for the analysis batches were within acceptable ranges and conformed to the DAC.

L.3.7 Matrix Spikes

All matrix spikes for the respective sample batches were within acceptable ranges and conformed to the DAC, with the exception of TRH in samples SE201451.001 and SE201451.020 due to sample heterogeneity and the presence of significant concentration of analyte.

L.3.8 Surrogate

Recovery results for all surrogate samples conformed to the DAC, with the exception for PAH in six samples.

L.3.9 Concluding Remark

Based on the laboratory QA/QC results EI considers that although a small number of discrepancies were identified, which in most cases could be attributed to the non-homogenous nature of the submitted samples, the data generally confirms that the analytical results for the various phases of laboratory testing were valid and useable for interpretation purposes.