DETAILED SITE INVESTIGATION REPORT

Hills Marketplace

287 Mona Vale Road, Terrey Hills NSW

Hills Marketplace – November 2022

Geo-Logix

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DETAILED SITE INVESTIGATION REPORT

Hills Marketplace
287 Mona Vale Road,
Terrey Hills NSW 2084

PREPARED FOR

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Report reference: 2201064Rpt01FinalV02_8Nov22

Date: 8 November 2022

DISTRIBUTION AND REVISION REGISTER

Revision Number	Date	Description	Recipient	Deliverables
V01	8/11/2022	Final Report 2201064Rpt01FinalV02_8Nov22	Geo-Logix Pty Ltd	1 Electronic Copy
V01	8/11/2022	Final Report 2201064Rpt01FinalV02_8Nov22	Hills Marketplace	1 Electronic Copy

Issued by: Geo-Logix Pty Ltd

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EXECUTIVE SUMMARY

Geo-Logix Pty Ltd was commissioned by Hills Marketplace Pty Ltd (Hills Marketplace) to conduct a Detailed Site Investigation (DSI) of the property located at 287 Mona Vale Road, Terrey Hills NSW**.**

In 2021, Geo-Logix completed a Preliminary Site Investigation (PSI) for the property. The PSI identified numerous potential contaminating activities having occurred onsite including:

- Demolition of structures potentially containing asbestos and lead based paint;
- Historical market gardening;
- Importation of fill of unknown origin as part of the site redevelopment and to fill a former farm dam; and
- Minor mechanic repairs.

The objective of the DSI was to conduct an investigation of soil to assess the presence or otherwise of contamination of the land that may have resulted from onsite historical and current activities. Further, the assessment was to consider the suitability of the site for a redevelopment with additional retail, restaurants and basement carpark.

To assess for potential soil contamination on the site the following scope of works was completed:

- Drilling thirty boreholes across the site and collection of representative samples from fill and native soils at each location. The sampling grid meets minimum sampling standards for the site area (19,910 m^2) as per NSW EPA (1995). The sampling grid will identify circular contamination hotspots equal to or greater than 30.39 m diameter at 95% statistical degree of certainty;
- A sample at each location was analysed for COPC including TRH, BTEXN, PAHs, heavy metals and OCPs.
- All fill samples were visually inspected for asbestos containing materials.

The results of the assessment did not identify any conditions requiring the site to be remediated. The site is considered suitable for the proposed redevelopment.

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1. INTRODUCTION

Geo-Logix Pty Ltd (Geo-Logix) was commissioned by Hills Marketplace Pty Ltd (Hills Marketplace) to conduct a Detailed Site Investigation (DSI) of the property located at 287 Mona Vale Road, Terrey Hills NSW (Figure 1). The DSI is required to support a development application (DA) for the proposed redevelopment.

Geo-Logix completed a Preliminary Site Investigation (PSI) for the subject site in December 2021. The PSI identified a number of historical activities that occurred onsite which had the potential to result in contamination of the land, including:

- Demolition of structures potentially containing asbestos and lead based paint;
- Historical market gardening;
- Importation of fill of unknown origin as part of the site redevelopment and to fill a former farm dam; and
- Minor mechanical repairs.

The objective of the DSI was to conduct an investigation to assess the presence or otherwise of contamination to the land associated with the above identified historical activities. Further, the assessment was to consider the suitability of the site for redevelopment with additional retail, restaurants, and basement carpark.

2. SITE INFORMATION

Address	287 Mona Vale Road, Terrey Hills NSW 2084
Lot and Deposited Plan (DP)	Lot 1 DP 845094
Approximate Area	19,910
Coordinates	Lat: 33°41'21.16"S Long: 151°13'25.76"E
Zoning	RU4 Primary Production Small Lots (Warringah Local Environmental Plan 2011)
Current Land Use	Commercial and Residential
Surrounding Land Use	**North** – Market gardening with mixed commercial, market gardening and residential properties beyond; **South** – Mona Vale Road with JJ Melbourne Hills Memorial Reserve, residential properties and bushland beyond; **East** – Mona Vale Road with JJ Melbourne Hills Memorial Reserve and Kimbriki Resource Recovery Centre beyond; and **West** – Miramare Gardens is located directly to the west with mixed commercial, light industrial and resident properties beyond.

Site Description (Attachment A– Photographic Log)	The following observations were made during site inspection and field works conducted by Geo-Logix in September 2022 (Figure 2): • The subject site is located in a commercial cum residential area in Terry Hills, NSW and comprises a square lot encompassing an area of 19,910 m2. • The property comprises the Hill Marketplace retail centre in the east of the property, two sheds for retail and storage in the northern corner and a residential house adjacent to the western boundary of the property. • A stormwater retention dam was situated in the southern portion of the site. • Landscape gardens are located in the southern and eastern portions of the site. • Remaining space is largely sealed with asphalt and concrete driveways with parking areas adjacent to most buildings. A sign at the site entry from Mona Vale Road indicates the marketplace was established in 1923. • The main commercial building was occupied mainly by florist shop, mower store, BBQ retail store, pool store and cafe. A greenhouse shed was located to the northern side of the commercial building. • The sheds located in the northern side of the site were occupied by Horselands equestrian supplies, garden supplies and a facility maintenance area. • There were a number of carparking areas located across the site, including an underground carpark beneath the eastern portion of the commercial building.
Topography and Elevation	The site slopes gently towards the west. A review of Google Earth indicates the site is located at an elevation of 192–184 m AHD.
Geology	Review of the NSW 1:100,000 Sydney Map (Geological Survey of NSW, 1983) indicates the site is underlain by Middle Triassic age Hawkesbury Sandstone comprising medium to coarse grained quartz sandstone with minor shale and laminate lenses.
Nearest Surface Water	The nearest surface water is an onsite dam and drainage line that flows westwards into Kierans Creek which then flows into an unknown dam and into Cowan Creek. Smiths Creek is located approximately 1,400 m north east of the site and flows northwards into Cowan Creek.
Regional Hydrogeology	It is expected that groundwater would follow the natural regional topography and generally flow west towards Kierans Creek. There are four registered groundwater bores within a 500 m radius of the site including one registered groundwater bore on-site. All four boreholes are authorised for household purposes.
Underground Utilities (Attachment B – Underground Utilities Plan)	A Dial Before You Dig search was conducted to determine the presence of underground utilities which may act as conduits for contamination migration both onsite and offsite (Attachment B). The plans indicate: • Ausgrid utilities run adjacent to the southern boundary of the site, underneath Mona Vale Road and the adjacent property; • Jemena and Sydney Water utilities run adjacent to the site underneath Mona Vale Road to the south and Myoora Road to the north; • NBN and Telstra utilities enter the site in the central south eastern portion of the site and run to the centre of the site; and • Optus utilities run adjacent to the southern boundary of the site, underneath Mona Vale Road.

3. PREVIOUS ENVIRONMENTAL INVESTIGATIONS

3.1 Geo-Logix (2021) Preliminary Site Investigation Report

Geo-Logix completed a PSI for the site in December 2021 (Geo-Logix, 2021). The findings of the report were based on a site inspection conducted and a review of site historical information.

Review of historical data indicates that the site was used for market gardening from at least 1920s to the late 1980s or early 1990s. One dwelling existed onsite until 2004, and one from 1996 to date. A dam existed onsite since earliest aerial image in 1947 and appears to have been filled in 1991. A new dam was constructed directly to the south of the former dam in 2002. The site began redevelopment as the Hills Marketplace in 2002. Results of the PSI indicate the site and surrounding areas had a mixed history of commercial/agricultural land use. Potentially contaminating land use activities that have been identified to have occurred onsite include:

- Demolition of structures potentially containing asbestos and lead based paint;
- Historical market gardening;
- Importation of fill of unknown origin as part of the site redevelopment and to fill a former farm dam; and
- Minor mechanical repairs.

Given the above site history Geo-Logix concluded there is a potential for land contamination at the site.

4. POTENTIAL SITE CONTAMINATION

4.1 Onsite Activities

Hazardous Building Materials

A residential dwelling in the southeast portion of the site constructed prior to 1947 was demolished between 1996 and 2002. Given the age of the dwelling hazardous building materials such as lead-based paint and asbestos may have been used in the building construction materials.

Potential exists for hazardous building materials in shallow soil in the footprint of the former dwelling resulting from demolition activities.

Market Gardening

The site has a history of broad scale market gardening from prior to 1947 (possibly 1923) until the late 1980s / early 1990s. Given this historical activity, there is potential for contamination to soil of the following contaminants of potential concern (COPC) associated with application of environmentally persistent pesticides comprising;

- Organochlorine Pesticides (OCPs); and
- Heavy Metals.

A greenhouse, landscaped gardens and nursery areas exist on site as part of the Hills Marketplace development post 2002. The potential for use of environmentally persistent herbicides and pesticides is considered low.

Fill of Unknown Origin

Fill is likely to have been applied to the site during construction of the commercial buildings, and landscaped areas and was identified at depth to one metre during concurrent geotechnical investigation. A farm dam in the southern portion of the site appears to have been filled. The origin of the fill across the site is unknown and there is potential for soil contamination arising from the following COPC:

- Total Recoverable Hydrocarbons (TRH);
- Benzene, Toluene, Ethylbenzene, Xylenes (BTEX);
- Polyaromatic Hydrocarbons (PAHs);
- OCPs;
- Asbestos; and
- Heavy Metals (As, Cd, Cr, Cu, Hg, Ni, Pb and Zn).

Existing Dam onsite

A new dam was constructed onsite between 1991 and 2002. The fill used for the construction of the dam appeared to be of poor quality with potential building debris and sediment from the former dam directly adjacent which would have received run off from the market gardening occurring in that period. The following COPCs potentially occurring within the dam include the following:

- TRH;
- BTEX;
- PAHs;
- OCPs;
- Asbestos;
- Heavy Metals (As, Cd, Cr, Cu, Hg, Ni, Pb and Zn); and
- Nutrients.

Minor Mechanical Activities

An area at the northern portion of the site was being used as a maintenance area for site machinery and storage of used batteries. The area was unsealed gravel / soil. The potential for consequential contamination from these activities is considered low but cannot be ruled out. There is potential for contamination to exist in soil and potentially groundwater in this area, associated COPCs are:

- Total Recoverable Hydrocarbons (TRH);
- Benzene, Toluene, Ethylbenzene, Xylenes (BTEX); and
- Heavy Metals (As, Cd, Cr, Cu, Hg, Ni, Pb and Zn).

4.2 Offsite

Former Landfill

Review of aerial imagery and online resources (Warringah Council 2010) indicates a landfill used to occupy the current JJ Melbourne Hills Memorial Reserve to the southeast of the site until 1978. The report commissioned by Warringah Council states the site has been subject to rehabilitation including capping, recontouring and turfing to be re-established for public recreation by 1988.

JJ Melbourne Hills Memorial Reserve exists to the east and downgradient of a ridge along Mona Vale Road. Groundwater flow direction from the landfill site is expected to be to the east and is not expected to pose a risk to groundwater to the subject site.

5. PRELIMINARY CONCEPTUAL SITE MODEL

For site contamination to present a risk to human health and the environment there has to be a link between the contaminant and the receptor as detailed below.

If any of the links do not exist contaminant exposure cannot occur.

The conceptual models below were prepared prior to site investigation based on the results of PSI and consider an operating commercial centre.

Conceptual Site Model – Contaminants in Soil and Groundwater				
Relevant Exposure Pathways	**Receptors**			
	Construction Workers	**Site Visitors / Staff**	**Offsite**	**Other**
Soil Ingestion/Dermal Contact/Dust	✓	✓	X	Terrestrial Ecology ✓
Inhalation of Vapours derived from Soil	✓	✓	X	Onsite Trench worker ✓
Inhalation of Vapours Derived from Groundwater	✓	✓	X	Onsite Trench worker ✓
Soils Leaching to Groundwater	--	--	--	Ongoing Groundwater Impact ✓
Groundwater Ingestion/Dermal Contact	✓	✓	✓	--
Groundwater Discharge to Surface Water	--	--	--	Recreation/Aquatic ecosystem ✓
Comments				
X – exposure pathway incomplete no unacceptable risk ✓ – exposure pathway complete potential unacceptable risk, investigation is required -- – Not relevant				

6. DATA QUALITY OBJECTIVES

The objective of the investigation was to assess the site for contamination that may have originated from historical site activities and to determine the suitability of the site for proposed redevelopment.

To achieve the objective, Geo-Logix has adopted the seven step Data Quality Objective (DQO) process as described in AS 4482.1–2005, US EPA (2000) and DEC (2006).

Step 1: State the problem.

The subject site may be contaminated as a result of historical and current land use and activities conducted on-site. Investigation of the site is required to determine the suitability for the proposed redevelopment.

Step 2: Identify the decision.

Contamination has not been identified in soil at concentrations above commercial land use standards. The site is considered suitable for the proposed commercial development without the requirement for remediation/management of site contamination.

Step 3: Identify inputs into the decision.

- Identification of issues of potential environmental concern (PSI);
- Appropriate identification of COPCs (PSI);
- Systematic soil sampling and analysis program of shallow soils across the site at a frequency consistent with minimum sampling requirements as defined in NSW EPA (1995);
- Visual inspection of systematic shallow soil samples for presence of Asbestos Containing Materials (ACM);
- Appropriate quality assurance/control to enable an evaluation of the reliability of the analytical data; and
- Screening sample analytical results against appropriate assessment criteria for the intended land use (Commercial/Industrial).

Step 4: Define the boundaries of the site.

The project boundary is defined as the area within the site boundary (287 Mona Vale Road, Terry Hills NSW) to a maximum bore depth of 3.6 metres below grade (mbg).

Step 5: Develop a decision rule.

To accept the assessment decision the shallow soils must be free of COPC hotspots of 30.39 m diameter or greater at a 95% statistical degree of certainty. The sampling data must meet the following qualifiers;

- The 95% Upper Confidence Limit of COPC concentration data does not exceed the soil assessment criteria;
- No single sample exceeds 250% of the soil COPC assessment criteria;
- The standard deviation of COPC analytical results is less than 50% of the soil assessment criteria; and
- No visible identification of ACM in soil samples.

Step 6: Specify acceptable limits on decision errors.

The field sampling methodology, sample preservation techniques, and laboratory analytical procedures must be appropriate to provide confidence in data quality so any comparison against assessment criteria can be considered reliable. This is achieved by defining and comparing results against the Data Quality Indicators (DQIs).

Step 7: Optimise the design for obtaining data.

This is achieved by sampling plan design in consideration of the available site history information, area of investigation, contaminant behaviour in the environment, and likely spatial distribution of contamination.

7. ASSESSMENT CRITERIA

The primary reference for environmental site assessment in Australia is the Amended Assessment of Site Contamination (ASC) National Environmental Protection Measure (NEPM) 1999 (NEPC, 2013). This document includes soil criteria for use in evaluating potential contamination risk to human health and the environment.

The application of these investigation levels and screening levels is subject to a range of limitations and their selection and use must be in the context of the conceptual site model (CSM) relating to the nature and distribution of impacts and potential exposure pathways. Each relevant guideline is discussed further below and the adopted screening criteria are presented in summary sample analytical tables attached to this report.

7.1 Soil Assessment Criteria

The following soil assessment criteria were adopted for the investigation.

NEPM Health Based Investigation Level D (HILs D)

HILs are Tier 1 risk based generic assessment criteria used for the assessment of potential risks to human health from chronic exposure to contaminants in soil. They are intentionally conservative and based on a reasonable worst-case scenario for generic land use settings including Low Density Residential (HILs A), High Density Residential (HILs B), Open Space/Recreational (HILs C) and Commercial Industrial (HILs D). HILs D soil assessment criteria were adopted on the basis the proposed site use is commercial.

NEPM Health Screening Levels D (HSLs D)

HSLs are Tier 1 risk based generic soil assessment criteria used for the assessment of potential risks to human health from chronic inhalation exposure of petroleum vapour emanating off petroleum contaminated soils (Vapour Risk). They are intentionally conservative and based on a reasonable worst-case scenario for generic soil types, contamination depth and land use settings including Residential (HSLs A/B), Open Space/Recreational (HSLs C) and Commercial Industrial (HSLs D). HSLs D soil assessment criteria were adopted. The generic soil types adopted included;

- HSL D Sand Soil 0 to 1 m and 1 to 2 m were adopted on basis of site geology and proposed land use;

Preliminary Asbestos Assessment Criteria

Asbestos assessment criteria are included in NEPM (1999) Amendment. Those criteria apply to the assessment of known and suspected asbestos contamination in soil and address friable and non-friable forms of asbestos. The presence of asbestos contamination was not known at the time of investigation therefore its investigation was of a preliminary nature. Given the preliminary assessment the following assessment criteria was adopted:

- No visible ACM on the site surface or in the subsurface at soil sampling locations; and
- No asbestos is detected in soil samples.

If ACM is encountered further assessment may be warranted.

NEPM Soil Ecological Assessment Levels

Ecological Investigation Levels (EILs) are used for the protection of terrestrial ecosystems and have been derived for common contaminants in soil based on a species sensitivity distribution model developed for Australian conditions. EILs apply principally to contaminants in the top 2 m of soil which corresponds to the root zone and habitation zone of many species. EILs have been developed for the following contaminants:

- Arsenic (As);
- Copper (Cu);
- Chromium III (CrIII);
- Nickel (Ni);
- Lead (Pb);
- Zinc (Zn);
- DDT; and
- Naphthalene.

EILs depend on specific soil physicochemical properties and land use scenarios. The protection levels for generic land use settings are:

- 99% for areas of ecological significance;
- 80% for urban residential areas and public open space; and
- 60% for commercial and industrial uses.

60% protection was adopted on the basis the proposed land use is commercial. Four soil samples (HA6, BH12, BH17 and BH26) collected from different locations across the site were sent to the laboratory for analysis of cation exchange capacity (CEC), clay content and pH to determine appropriate EILs for site soils.

A summary of EILs adopted for site and rationale are detailed below.

Contaminant	EIL (mg/kg)	Rationale
As	160	Value for commercial and industrial irrespective of physicochemical properties.
Cu	220	Value for commercial and industrial based on an average CEC of 6.8 and pH of 6.3.
CrIII	680	Value for commercial and industrial based on average clay content of 10%.

Contaminant	EIL (mg/kg)	Rationale
Ni	130	Value for commercial and industrial based on an average CEC of 7.
Pb	2,000	Value for commercial and industrial irrespective of physicochemical properties.
Zn	590	Value for commercial and industrial based on an average CEC of 7 and pH of 6.3.
DDT	640	Value for commercial and industrial irrespective of physicochemical properties.
Naphthalene	370	

In addition, Ecological Screening Levels (ESLs) have been developed. The ESLs are based on a review of Canadian guidance for petroleum hydrocarbons contamination in coarse and fine-grained soil types and application of the Australian methodology. A summary of ESLs adopted for site and rationale are detailed below.

Contaminant	ESL (mg/kg)	Rationale
F1 C6-C10	215	Value for commercial and industrial in coarse grained soil.
F2 C10-C16	170	
F3 C16-C34	1700	
F4 C34-C40	3,300	
Benzene	75	
Toluene	135	
Ethylbenzene	165	
Xylenes (Total)	180	
Benzo(a)pyrene	172	

8. INVESTIGATION METHODOLOGIES

Geo-Logix conducted environmental investigation during the period 7th September to 13th September 2022. Sample locations are presented in Figure 3.

8.1 Sampling Analysis Plan

To assess for potential soil contamination Geo-Logix completed the following scope of works across the site:

- Systematic soil sampling at 30 locations (HA1-HA6 and BH7-BH30) across the site on a 25.75 m grid-based sampling plan. The sampling frequency meets NSW EPA (2005) minimum sampling density requirements and is sufficient to identify contamination hotspots of a minimum diameter of 30.39 m at a 95% degree of statistical certainty;
- A sample at each location was analysed for COPC including TRH, BTEXN, PAHs, heavy metals and OCPs;
- All fill samples were visually inspected for asbestos containing materials.

8.2 Soil Sampling Methodology

A total of thirty soil borings were completed across the investigation area as follows (Figure 3):

Soil borings (HA1, HA2, HA3, HA4, HA5, HA6, BH29 and BH30) were advanced via hand auger to natural soil, 1mbg or prior refusal. Soil borings (BH7 to BH28) were otherwise advanced using a track mounted GeoProbe equipped with push tubes to depths between 0 and 2.4 mbg. Soil samples were collected directly from the push tubes.

Soil samples were placed in laboratory prepared jars, labelled and placed on ice in an esky for transport. A chain of custody form was prepared to accompany the esky to a NATA Accredited Laboratory for the analysis of the COPC. Quality Control procedures included the decontamination of the auger between boring locations and changing disposable gloves between samples.

Soil borehole logs are presented in Attachment C.

8.3 Quality Assurance

Quality control (QC) sampling was undertaken in general accordance with specifications outlined in AS4482.1, Guide to Sampling and Investigation of Potentially Contaminated Soil. Field QC samples were collected and included the following:

Sample Identification	Sample Type	Sample Matrix	Rate of Collection
DS1	Field duplicate of HA4/0.1-0.4	Soil	1 in 20 samples
TS1	Field triplicate of HA4/0.1-0.4	Soil	1 in 20 samples
DS2	Field duplicate of BH15/0.3-0.6	Soil	1 in 20 samples
TS2	Field triplicate of BH15/0.3-0.6	Soil	1 in 20 samples
Blank	Transport blank sample	Water	1 per batch
Spike	Spike sample	Water	1 per batch
RW1	Soil sampling equipment rinsate	Water	1 per round of hand auger borings

Note – Rate of QC sample collection specified as 1 in 20 samples in AS4482.1

The laboratory internal QC procedures are consistent with NEPM policy on laboratory analysis of contaminated soils.

9. INVESTIGATION RESULTS

9.1 Site Geology

The encountered soils encountered across the site typically comprised:

- Fill comprised of light grey to medium dark grey, damp to moist, well compacted sandy clayey material.
- Underlain by pale brown to pale yellowish orange, damp to wet, dense to medium dense clayey sand (SC).

During the previous geotechnical investigation, sandstone bedrock was encountered below 2.4 to 3.8 mbg.

Soil sample logs are found in Attachment C.

9.2 Site Hydrogeology

Groundwater was not encountered during the detailed site investigation. During the previous geotechnical investigation, groundwater was encountered at 2.0 to 4.5 mbg.

9.3 Soil Analytical Results

Soil analytical results are summarised in Tables 1 to 4. Laboratory reports are presented in Attachment D.

Petroleum Hydrocarbons

TRH and BTEX were not detected at concentrations above the assessment criteria in all soil samples analysed (Table 1).

PAHs

PAHs were not detected at concentrations above the assessment criteria in all soil samples analysed (Table 2).

OCPs

OCPs were not detected at concentrations above the assessment criteria in all soil samples analysed (Table 3).

Heavy Metals

Arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc were not detected at concentrations greater than the assessment criteria in all soil samples analysed (Table 4).

Asbestos

ACM was not identified in soil during visual inspection at any sample location.

9.4 QA/QC Results

Field Duplicates / Triplicates

Soil duplicate/triplicate results are within the adopted acceptance criteria of 30–50% (AS4482.1) relative percent difference (RPD) with the exception of copper in soil duplicate pair BH15/0.3-0.6 and DS2. The RPD exceedance is attributed to the low concentrations detected (<5 time LOR).

Rinsate Samples

COPC were not detected at concentrations above laboratory reporting limits in the rinsate samples collected from the hand auger indicating decontamination procedures were adequate to prevent cross contamination.

Field Blanks

Contaminants of Potential Concern (COPCs) were not detected at concentrations above laboratory reporting limits in the groundwater field blank samples indicating sample handling and transport techniques were sufficient to prevent cross contamination between samples (Table 11).

Field Spikes

BTEX recoveries were between 70% and 130 % in the field water spike samples (Table 11). The results indicate the groundwater handling, storage, transport and analytical procedures were sufficient to prevent volatile loss.

A summary of Laboratory QA/QC data is presented on the following table.

Report #	Analysis Within Holding Time	Surrogate Recovery	Lab. Duplicate RPD %	Lab Matrix Spike Recovery	Lab. Control Sample	Lab Method Blank
923657-S	✓	✓	✓	X	✓	✓
926115-S-V2	✓	✓	✓	✓	✓	✓
928993-S	✓	✓	✓	✓	✓	✓
✓ = Pass X = Fail -- = not required * = refer to report text						

Quality Assurance Criteria	Quality Control Criteria
Holding Times	**Accuracy**
VOCs: 7 days soil, 7 days water SVOCs: 14 days soil, 7 days water TRH and BTEX: 14 days soil, 7 days water Metals: 6 months soil (mercury 28 days), 28 days water. Asbestos: no limit	Surrogate, matrix spike, control sample 70–130% and 30–130% for Phenols. Surrogate recovery 50–150% and 20–130% for Phenols. **Precision** Method Blank Not detected Duplicate – No limit (<10xEQL), 0–50% (10–20xEQL), 0–200% (>20xEQL)

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The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Geo-Logix accepts the integrity of the analytical data.

10. DISCUSSION

While lower levels of petroleum hydrocarbons, PAHs, OCPs and heavy metals were reported in soil, COPCs were not identified in soil at concentrations in excess of assessment criteria in all samples analysed. The risk that past site activities have contaminated on-site soils is considered low and acceptable.

As COPCs were not detected in on-site soil and all identified sources of potential contamination at the site are ‘top down’ processes expected to first affect surficial soils, it is considered that the risk of contamination to on-site groundwater and surface water is also low and acceptable.

11. REVISED CONCEPTUAL SITE MODEL

A summary of the revised CSM for contamination is presented below.

Conceptual Site Model				
Relevant Exposure Pathways	**Receptors**			
	Construction Workers	**Site visitors/ Staff**	**Offsite**	**Other**
Soil Ingestion/Dermal Contact/Dust	X	X	X	Terrestrial Ecology X
Inhalation of Vapours derived from Soil	X	X	X	--
Inhalation of Vapours Derived from Groundwater	X	X	X	--
Soils Leaching to Groundwater	--	--	--	Ongoing Groundwater Impact X
Groundwater Ingestion/Dermal contact	X	X	X	--
Groundwater Discharge to Surface Water	--	--	--	Recreation/Aquatic ecosystem X
Comments				
X – exposure pathway incomplete no unacceptable risk ✓ – exposure pathway complete potential unacceptable risk -- Not relevant				

12. CONCLUSIONS

Based on the results of investigation, the site is considered suitable for the proposed commercial development.

13. LIMITATIONS

This report should be read in full, and no executive summary, conclusion or other section of the report may be used or relied on in isolation, or taken as representative of the report as a whole. No responsibility is accepted by Geo-Logix, and any duty of care that may arise but for this statement is excluded, in relation to any use of any part of this report other than on this basis.

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The works undertaken by Geo-Logix are based solely on the scope of works, as agreed by the Client (Scope of Works). No other investigations, sampling, monitoring works or reporting will be carried out other than as expressly provided in the Scope of Works. **A COPY OF THE SCOPE OF WORKS IS AVAILABLE ON REQUEST.**

To the extent permitted by law, Geo-Logix makes no warranties or representations as to the:

a. suitability of the Site for any specific use, or category of use, or

b. potential statutory requirements for remediation, if any, of the Site,

c. approvals, if any, that may be needed in respect of any use or category of use, or

d. level of remediation, if any, that is warranted to render the Site suitable for any specific use, or category of use, or

e. level of ongoing monitoring of Site conditions, if any, that is required in respect of any specific use, or category of use, or

f. presence, extent or absence of any substance in, on or under the Site, other than as expressly stated in this report.

The conclusions stated in this report are based solely on the information, Scope of Works, analysis and data that are stated or expressly referred to in this report.

To the extent that the information and data relied upon to prepare this report has been conveyed to Geo-Logix by the Client or third parties orally or in the form of documents, Geo-Logix has assumed that the information and data are completely accurate and has not sought independently to verify the accuracy of the information or data. Geo-Logix assumes no responsibility or duty of care in respect of any errors or omissions in the information or data provided to it.

Without limiting the paragraph above, where laboratory tests have been carried out by others on Geo-Logix's behalf, the tests are reproduced in this report on the assumption that the tests are accurate. Geo-Logix has not sought independently to verify the accuracy of those tests and assumes no responsibility in respect of them.

Geo-Logix assumes no responsibility in respect of any changes in the condition of the Site which have occurred since the time when Geo-Logix gathered data and/or took samples from the Site on its site inspections dated **7 to 13 September 2022**.

Given the nature of asbestos, and the difficulties involved in identifying asbestos fibres, despite the exercise of all reasonable due care and diligence, thorough investigations may not always reveal its presence in either buildings or fill. Even if asbestos has been tested for and those tests' results do not reveal the presence of asbestos at those specific points of sampling, asbestos or asbestos containing materials may still be present at the Site, particularly if fill has been imported at any time, buildings constructed prior to 1980 have been demolished on the Site or materials from such buildings have been disposed of on the Site.

Where the Scope of Works does not include offsite investigations, Geo-Logix provides no warranty as to offsite conditions, including the extent if any to which substances in the Site may be emanating off site, and if so whether any adjoining sites have been or may be impacted by contamination originating from the Site.

Where the Scope of Works does not include the investigation, sampling, monitoring or other testing of groundwater in, on or under the Site, Geo-Logix provides no warranty or representation as to the quality of groundwater on the Site or the actual or potential migration of contamination in groundwater across or off the Site.

Subsurface site conditions are typically heterogeneous, and may change with time. Samples taken from different points on the Site may not enable inferences to be drawn about the condition of areas of the Site significantly removed from the sample points, or about the condition of any part of the Site whatsoever, in particular where the proposed inferences are to be drawn a long time after the date of the report.

Geo-Logix has prepared this report with the diligence, care and skill which a reasonable person would expect from a reputable environmental consultancy and in accordance with environmental regulatory authority and industry standards, guidelines and assessment criteria applicable as at the date of this report. Industry standards and environmental criteria change frequently, and may change at any time after the date of this report.

14. REFERENCES

Australian Standard (2005) AS 4482.1–2005 Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Volatile and Semi-volatile compounds. Standards Australia.

Australian Standard (2005) AS 4482.2–1999 Guide to the investigation and sampling of sites with potentially contaminated soil. Part 2: Volatile substances. Standards Australia.

Before You Dig (2022), https://www.byda.com.au/

Geo-Logix (2021) Preliminary Site Investigation Report, 287 Mona Vale Road, Terrey Hills, NSW. Report Ref 2101130Rpt01FinalV01_21Dec21.

Google Earth (2022). Terrey Hills, NSW.

Nearmap (2022) Taree, https://www.nearmap.com/au/en

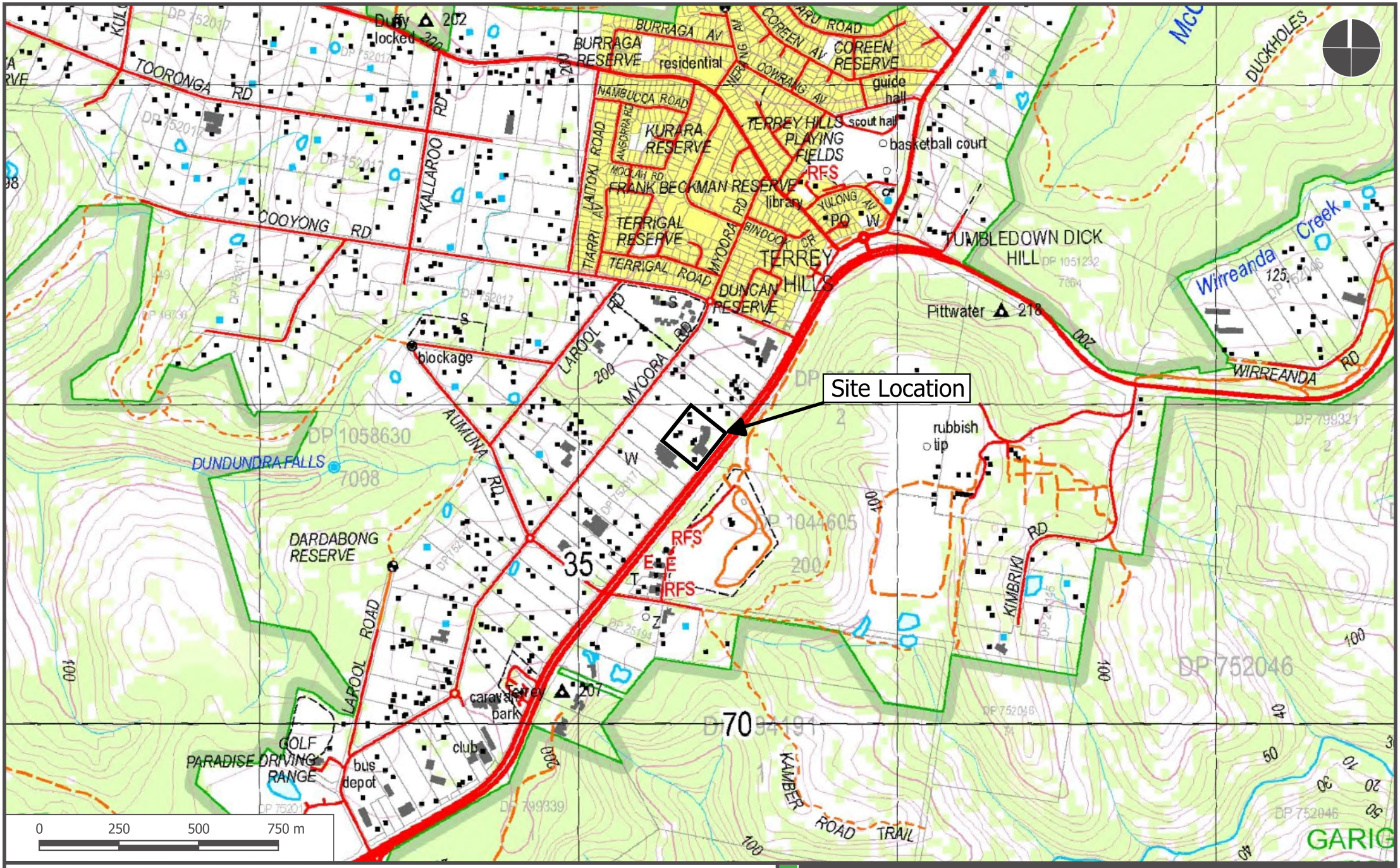
NEPC (1999) *Amended National Environmental Protection Measure (2013)*, National Environmental Protection Council.

NSW DEC (2006) Guidelines for NSW Site Auditor Scheme, NSW Department of Environment and Conservation.

NSW EPA (1995) *Contaminated Sites Sampling Design Guidelines*, NSW Environmental Protection Authority.

NSW EPA (2020), Consultants Reporting on Contaminated Land, Contaminated Land Guidelines.

FIGURES



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SITE LOCATION

Detailed Site Investigation
287 Mona Vale Road, Terrey Hills NSW

Project No. 2201064

Figure 1

ID	Business
1	Cafe
2	Flower Market
3	Pool Shop
4	Travel Agent
5	BBQ Store
6	Mower Store
7	Retail Store
8	Horselands
9	Garden Supplies
10	Maintenance Area
11	Dwelling
12	Greenhouse

KEY

Site Boundary

Site Features

0 15 30 45 60 75 m

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SITE MAP

Detailed Site Investigaiton
287 Mona Vale Road, Terrey Hills NSW 2084

Project No. 2201064

Figure 2

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SAMPLE LOCATIONS

Detailed Site Investigaiton
287 Mona Vale Road, Terrey Hills NSW 2084

Project No. 2201064

Figure 3

TABLES

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	HA1/0.7-0.8	HA2/0.2-0.3	HA3/0.25-0.45	HA4/0.1-0.4	DS1
	HSLs - D	Management	ESLs	EILs	Depth (m)	0.7-0.8	0.2-0.3	0.25-0.45	0.1-0.4	-
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	-
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	< 20	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	< 20	< 20	< 20
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	< 100	< 100	< 100	< 100
TRH >C_{34}-C_{40}	-	10,000	3,300	-		< 100	< 100	< 100	< 100	< 100
Benzene	3	-	75	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-	135	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	165	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-	180	-		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
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Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	RPD_DS1	TS1	RPD_TS1	HA4/1.2-1.3	HA5/0.7-0.8
	HSLs - D	Management	ESLs	EILs	Depth (m)	-	-	-	1.2-1.3	0.7-0.8
	Sand	Limits	Comm/Ind	Commercial/	Type	-	-	-	Fill	Fill
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	-	7/09/2022	-	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		*nc*	< 20	*nc*	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		*nc*	< 20	*nc*	< 20	< 20
TRH >C_{10}-C_{16}	-	1,000	-	-		*nc*	< 50	*nc*	< 250	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		*nc*	< 50	*nc*	< 250	< 50
TRH >C_{16}-C_{34}	-	3,500	1,700	-		*nc*	< 100	*nc*	< 500	< 100
TRH >C_{34}-C_{40}	-	10,000	3,300	-		*nc*	< 100	*nc*	560	< 100
Benzene	3	-	75	-		*nc*	< 0.1	*nc*	< 0.1	< 0.1
Toluene	NL	-	135	-		*nc*	< 0.1	*nc*	1	< 0.1
Ethylbenzene	NL	-	165	-		*nc*	< 0.1	*nc*	0.1	< 0.1
m&p-Xylenes	-	-	-	-		*nc*	< 0.2	*nc*	0.7	< 0.2
o-Xylene	-	-	-	-		*nc*	< 0.1	*nc*	0.2	< 0.1
Xylenes - Total	230	-	180	-		*nc*	< 0.3	*nc*	0.8	< 0.3
Naphthalene (MAH)	NL	-	-	370		*nc*	< 0.5	*nc*	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.
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Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
DS1 = duplicate of HA4/0.1-0.4
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DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
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Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	HA6/0.5-0.6	BH7/0.8-0.9	BH7/2.5-2.6	BH8/0.3-0.5	BH9/0.3-0.6
	HSLs - D	Management	ESLs	EILs	Depth (m)	0.5-0.6	0.8-0.9	2.5-2.6	0.3-0.5	0.3-0.6
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	< 20	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	< 20	< 20	< 20
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	< 50	< 50	< 250	< 250
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	< 50	< 50	< 250	< 250
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	< 100	< 100	< 500	< 500
TRH >C_{34}-C_{40}	-	10,000	3,300	-		< 100	< 100	< 100	< 500	< 500
Benzene	3	-	75	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-	135	-		0.4	< 0.1	< 0.1	0.1	0.2
Ethylbenzene	NL	-	165	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-	-		0.3	< 0.2	< 0.2	0.2	0.2
o-Xylene	-	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-	180	-		0.4	< 0.3	< 0.3	0.3	0.3
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
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Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
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Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH10/0.9-1	BH11/1-1.2	BH12/0.2-0.4	BH13/0.3-0.5	BH14/0.3-0.7
	HSLs - D	Management	ESLs	EILs	Depth (m)	0.9-1.0	1.0-1.2	0.2-0.4	0.3-0.5	0.3-0.7
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	< 20	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	< 20	< 20	< 20
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	< 100	< 100	< 100	< 100
TRH >C_{34}-C_{40}	-	10,000	3,300	-		< 100	< 100	< 100	< 100	< 100
Benzene	3	-	75	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-	135	-		< 0.1	0.3	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	165	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-	180	-		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
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Total concentrations in mg/kg
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TS2 = triplicate of BH15/0.3-0.6
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Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH15/0.3-0.6	DS2	RPD_DS2	TS2	RPD_TS2
	HSLs - D	Management	ESLs	EILs	Depth (m)	0.3-0.6	-	-	-	-
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	-	-	-	-
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	-	7/09/2022	-
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	*nc*	< 20	*nc*
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	*nc*	< 20	*nc*
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	< 50	*nc*	< 50	*nc*
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	< 50	*nc*	< 50	*nc*
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	120	*nc*	< 100	*nc*
TRH >C_{34}-C_{40}	-	10,000	3,300	-		< 100	170	*nc*	< 100	*nc*
Benzene	3	-	75	-		< 0.1	< 0.1	*nc*	< 0.1	*nc*
Toluene	NL	-	135	-		< 0.1	< 0.1	*nc*	0.2	*nc*
Ethylbenzene	NL	-	165	-		< 0.1	< 0.1	*nc*	< 0.1	*nc*
m&p-Xylenes	-	-	-	-		< 0.2	< 0.2	*nc*	0.2	*nc*
o-Xylene	-	-	-	-		< 0.1	< 0.1	*nc*	< 0.1	*nc*
Xylenes - Total	230	-	180	-		< 0.3	< 0.3	*nc*	< 0.3	*nc*
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	*nc*	< 0.5	*nc*

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
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Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH16/0.55-0.7	BH17/0.6-0.8	BH18/0.2-0.5	BH19/0.1-0.3	BH20/0.6-0.7
	HSLs - D	Management	ESLs	EILs	Depth (m)	0.55-0.7	0.6-0.8	0.2-0.5	0.1-0.3	0.6-0.7
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	< 20	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	< 20	< 20	< 20
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	< 100	< 100	180	< 100
TRH >C_{34}-C_{40}	-	10,000	3,300	-		100	< 100	< 100	< 100	< 100
Benzene	3	-	75	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-	135	-		0.6	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	165	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-	-		0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-	180	-		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

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Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH21/0.3-0.5	BH21/3.0-3.2	BH22/0.3-0.6	BH23/1-1.2	BH24/0.3-0.6
	HSLs - D	Management	ESLs	EILs	Depth (m)	0.3-0.5	3.0-3.2	0.3-0.6	1.0-1.2	0.3-0.6
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	< 20	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	< 20	< 20	< 20
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	< 100	< 100	< 100	< 100
TRH >C_{34}-C_{40}	-	10,000	3,300	-		< 100	< 100	< 100	< 100	< 100
Benzene	3	-	75	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-	135	-		< 0.1	< 0.1	0.2	< 0.1	< 0.1
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m&p-Xylenes	-	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-	180	-		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH25/0.5-0.8	BH26/0.4-0.6	BH27/0.2-0.5	BH28/0.3-0.6	BH29/0.8-0.9
	HSLs - D	Management	ESLs	EILs	Depth (m)	0.5-0.8	0.4-0.6	0.2-0.5	0.3-0.6	0.8-0.9
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	< 20	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	< 20	< 20	< 20
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	260	210	< 100	< 100
TRH >C_{34}-C_{40}	-	10,000	3,300	-		< 100	240	180	< 100	< 100
Benzene	3	-	75	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-	135	-		< 0.1	0.2	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	165	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-	180	-		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH30/1-1.2	BLANK1	SPIKE1
	HSLs - D	Management	ESLs	EILs	Depth (m)	1.0-1.2	-	-
	Sand	Limits	Comm/Ind	Commercial/	Type	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022
TRH C_6-C_{10}	-	700	-	-		< 20	< 20	*110%*
TRH C_6-C_{10} less BTEX (F1)	260	-	215	-		< 20	< 20	--
TRH >C_{10}-C_{16}	-	1,000	-	-		< 50	--	--
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	170	-		< 50	--	--
TRH >C_{16}-C_{34}	-	3,500	1,700	-		< 100	--	--
TRH >C_{34}-C_{40}	-	10,000	3,300	-		< 100	--	--
Benzene	3	-	75	-		< 0.1	< 0.1	*100%*
Toluene	NL	-	135	-		< 0.1	< 0.1	*110%*
Ethylbenzene	NL	-	165	-		< 0.1	< 0.1	*100%*
m&p-Xylenes	-	-	-	-		< 0.2	< 0.2	*100%*
o-Xylene	-	-	-	-		< 0.1	< 0.1	*110%*
Xylenes - Total	230	-	180	-		< 0.3	< 0.3	*110%*
Naphthalene (MAH)	NL	-	-	370		< 0.5	< 0.5	*100%*

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	HA1/0.7-0.8	HA2/0.2-0.3	HA3/0.25-0.45	HA4/0.1-0.4	DS1
	HSLs - D		ESLs	EILs	Depth (m)	0.7-0.8	0.2-0.3	0.25-0.45	0.1-0.4	-
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	-
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	40	-	-		0.6	0.6	0.6	0.6	0.6
Total PAH	-	4,000	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6

BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	RPD_DS1	TS1	RPD_TS1	HA4/1.2-1.3	HA5/0.7-0.8
	HSLs - D		ESLs	EILs	Depth (m)	-	-	-	1.2-1.3	0.7-0.8
	Sand	HILs - D	Comm/Ind	Commercial/	Type	-	-	-	Fill	Fill
	0 to <1 m		Coarse Soil	Industrial	Date	-	7/09/2022	-	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Anthracene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Benzo(a)pyrene	-	-	172[1]	-		*nc*	< 0.5	*nc*	0.7	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Benzo(g.h.i)perylene	-	-	-	-		*nc*	< 0.5	*nc*	1	< 0.5
Benzo(k)fluoranthene	-	-	-	-		*nc*	< 0.5	*nc*	0.7	< 0.5
Chrysene	-	-	-	-		*nc*	< 0.5	*nc*	0.5	< 0.5
Dibenz(a.h)anthracene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Fluoranthene	-	-	-	-		*nc*	< 0.5	*nc*	0.7	< 0.5
Fluorene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-	-		*nc*	< 0.5	*nc*	0.7	< 0.5
Naphthalene	NL	-	-	370		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Phenanthrene	-	-	-	-		*nc*	< 0.5	*nc*	< 0.5	< 0.5
Pyrene	-	-	-	-		*nc*	< 0.5	*nc*	0.5	< 0.5
Benzo(a)pyrene TEQ	-	40	-	-		*0%*	0.6	*0%*	1.2	0.6
Total PAH	-	4,000	-	-		*nc*	< 0.5	*nc*	4.8	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6

BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	HA6/0.5-0.6	BH7/0.8-0.9	BH7/2.5-2.6	BH8/0.3-0.5	BH9/0.3-0.6
	HSLs - D		ESLs	EILs	Depth (m)	0.5-0.6	0.8-0.9	2.5-2.6	0.3-0.5	0.3-0.6
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	1.3	0.7
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	< 0.5	< 0.5	1.8	0.7
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	1.2	< 0.5
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	< 0.5	< 0.5	1.3	< 0.5
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	2.1	0.7
Chrysene	-	-	-	-		< 0.5	< 0.5	< 0.5	1.8	0.9
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	3.2	1.7
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	0.8	< 0.5
Naphthalene	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		< 0.5	< 0.5	< 0.5	0.6	< 0.5
Pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	3.9	2
Benzo(a)pyrene TEQ	-	40	-	-		0.6	0.6	0.6	2.6	1.2
Total PAH	-	4,000	-	-		< 0.5	< 0.5	< 0.5	18	6.7

Notes:

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Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
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Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH10/0.9-1	BH11/1-1.2	BH12/0.2-0.4	BH13/0.3-0.5	BH14/0.3-0.7
	HSLs - D		ESLs	EILs	Depth (m)	0.9-1.0	1.0-1.2	0.2-0.4	0.3-0.5	0.3-0.7
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	40	-	-		0.6	0.6	0.6	0.6	0.6
Total PAH	-	4,000	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
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Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
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TS2 = triplicate of BH15/0.3-0.6
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nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH15/0.3-0.6	DS2	RPD_DS2	TS2	RPD_TS2
	HSLs - D		ESLs	EILs	Depth (m)	0.3-0.6	-	-	-	-
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	-	-	-	-
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	-	7/09/2022	-
Acenaphthene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Anthracene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Chrysene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Fluoranthene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Fluorene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Naphthalene	NL	-	-	370		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Phenanthrene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Pyrene	-	-	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*
Benzo(a)pyrene TEQ	-	40	-	-		0.6	0.6	*0%*	0.6	*0%*
Total PAH	-	4,000	-	-		< 0.5	< 0.5	*nc*	< 0.5	*nc*

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH16/0.55-0.7	BH17/0.6-0.8	BH18/0.2-0.5	BH19/0.1-0.3	BH20/0.6-0.7
	HSLs - D		ESLs	EILs	Depth (m)	0.55-0.7	0.6-0.8	0.2-0.5	0.1-0.3	0.6-0.7
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	0.6	< 0.5
Chrysene	-	-	-	-		< 0.5	< 0.5	< 0.5	0.6	< 0.5
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	1.2	< 0.5
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		< 0.5	< 0.5	< 0.5	1	< 0.5
Pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	1.2	< 0.5
Benzo(a)pyrene TEQ	-	40	-	-		0.6	0.6	0.6	0.6	0.6
Total PAH	-	4,000	-	-		< 0.5	< 0.5	< 0.5	4.6	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH21/0.3-0.5	BH21/3.0-3.2	BH22/0.3-0.6	BH23/1-1.2	BH24/0.3-0.6
	HSLs - D		ESLs	EILs	Depth (m)	0.3-0.5	3.0-3.2	0.3-0.6	1.0-1.2	0.3-0.6
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	40	-	-		0.6	0.6	0.6	0.6	0.6
Total PAH	-	4,000	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH25/0.5-0.8	BH26/0.4-0.6	BH27/0.2-0.5	BH28/0.3-0.6	BH29/0.8-0.9
	HSLs - D		ESLs	EILs	Depth (m)	0.5-0.8	0.4-0.6	0.2-0.5	0.3-0.6	0.8-0.9
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	< 0.5	0.8	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	1	1.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	0.7	< 0.5	< 0.5
Chrysene	-	-	-	-		< 0.5	< 0.5	0.6	< 0.5	< 0.5
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		< 0.5	< 0.5	1	< 0.5	< 0.5
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	0.5	0.7	< 0.5	< 0.5
Naphthalene	NL	-	-	370		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		< 0.5	< 0.5	0.6	< 0.5	< 0.5
Pyrene	-	-	-	-		< 0.5	< 0.5	1	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	40	-	-		0.6	0.6	1.3	0.6	0.6
Total PAH	-	4,000	-	-		< 0.5	1.5	6.9	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	BH30/1-1.2	BLANK1	SPIKE1
	HSLs - D		ESLs	EILs	Depth (m)	1.0-1.2	-	-
	Sand	HILs - D	Comm/Ind	Commercial/	Type	Fill	Fill	Fill
	0 to <1 m		Coarse Soil	Industrial	Date	7/09/2022	7/09/2022	7/09/2022
Acenaphthene	-	-	-	-		< 0.5	--	--
Acenaphthylene	-	-	-	-		< 0.5	--	--
Anthracene	-	-	-	-		< 0.5	--	--
Benz(a)anthracene	-	-	-	-		< 0.5	--	--
Benzo(a)pyrene	-	-	172[1]	-		< 0.5	--	--
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	--	--
Benzo(g.h.i)perylene	-	-	-	-		< 0.5	--	--
Benzo(k)fluoranthene	-	-	-	-		< 0.5	--	--
Chrysene	-	-	-	-		< 0.5	--	--
Dibenz(a.h)anthracene	-	-	-	-		< 0.5	--	--
Fluoranthene	-	-	-	-		< 0.5	--	--
Fluorene	-	-	-	-		< 0.5	--	--
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 0.5	--	--
Naphthalene	NL	-	-	370		< 0.5	--	--
Phenanthrene	-	-	-	-		< 0.5	--	--
Pyrene	-	-	-	-		< 0.5	--	--
Benzo(a)pyrene TEQ	-	40	-	-		0.6	--	--
Total PAH	-	4,000	-	-		< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for commercial/industrial, coarse soil.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
[1]CRC CRE High Reliability Ecological Guideline for fresh benzo(a)pyrene
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6

BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	HA1/0.7-0.8	HA2/0.2-0.3	HA3/0.25-0.45	HA4/0.1-0.4	DS1
		EILs	Depth (m)	0.7-0.8	0.2-0.3	0.25-0.45	0.1-0.4	-
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	-
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	0.08	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	640		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

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-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	HA1/0.7-0.8	HA2/0.2-0.3	HA3/0.25-0.45	HA4/0.1-0.4	DS1
		EILs	Depth (m)	0.7-0.8	0.2-0.3	0.25-0.45	0.1-0.4	-
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	-
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Methoxychlor	2,500	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	160	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin + Dieldrin	45	-		ND	ND	ND	ND	ND
Endosulfans - Total	2,000	-		ND	ND	ND	ND	ND
DDD + DDE + DDT	3,600	-		ND	0.08	ND	ND	ND
Scheduled Chemical Wastes	-	-		ND	0.08	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	RPD_DS1	TS1	RPD_TS1	HA4/1.2-1.3	HA5/0.7-0.8
		EILs	Depth (m)	-	-	-	1.2-1.3	0.7-0.8
	HILs - D	Commercial/	Type	-	-	-	Fill	Fill
		Industrial	Date	-	7/09/2022	-	7/09/2022	7/09/2022
4.4'-DDD	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
4.4'-DDE	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
4.4'-DDT	-	640		*nc*	< 0.05	*nc*	< 0.5	< 0.05
a-BHC	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Aldrin	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
b-BHC	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Chlordanes - Total	530	-		*nc*	< 0.1	*nc*	< 1	< 0.1
d-BHC	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Dieldrin	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Endosulfan I	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Endosulfan II	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Endosulfan sulphate	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Endrin	100	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Endrin aldehyde	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Endrin ketone	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
g-BHC (Lindane)	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Heptachlor	50	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Heptachlor epoxide	-	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Hexachlorobenzene	80	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2201064

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	Criteria 1	Criteria 2	Sample ID	RPD_DS1	TS1	RPD_TS1	HA4/1.2-1.3	HA5/0.7-0.8
		EILs	Depth (m)	-	-	-	1.2-1.3	0.7-0.8
	HILs - D	Commercial/	Type	-	-	-	Fill	Fill
		Industrial	Date	-	7/09/2022	-	7/09/2022	7/09/2022
Methoxychlor	2,500	-		*nc*	< 0.05	*nc*	< 0.5	< 0.05
Toxaphene	160	-		*nc*	< 0.5	*nc*	< 10	< 0.5
Aldrin + Dieldrin	45	-		*nc*	ND	*nc*	ND	ND
Endosulfans - Total	2,000	-		*nc*	ND	*nc*	ND	ND
DDD + DDE + DDT	3,600	-		*nc*	ND	*nc*	ND	ND
Scheduled Chemical Wastes	-	-		*nc*	ND	*nc*	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	HA6/0.5-0.6	BH7/0.8-0.9	BH7/2.5-2.6	BH8/0.3-0.5	BH9/0.3-0.6
		EILs	Depth (m)	0.5-0.6	0.8-0.9	2.5-2.6	0.3-0.5	0.3-0.6
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
4.4'-DDT	-	640		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Chlordanes - Total	530	-		< 0.1	< 0.1	< 0.1	< 1	< 1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Endrin	100	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Heptachlor	50	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Hexachlorobenzene	80	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
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TS2 = triplicate of BH15/0.3-0.6
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	HA6/0.5-0.6	BH7/0.8-0.9	BH7/2.5-2.6	BH8/0.3-0.5	BH9/0.3-0.6
		EILs	Depth (m)	0.5-0.6	0.8-0.9	2.5-2.6	0.3-0.5	0.3-0.6
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Methoxychlor	2,500	-		< 0.05	< 0.05	< 0.05	< 0.5	< 0.5
Toxaphene	160	-		< 0.5	< 0.5	< 0.5	< 10	< 10
Aldrin + Dieldrin	45	-		ND	ND	ND	ND	ND
Endosulfans - Total	2,000	-		ND	ND	ND	ND	ND
DDD + DDE + DDT	3,600	-		ND	ND	ND	ND	ND
Scheduled Chemical Wastes	-	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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	Criteria 1	Criteria 2	Sample ID	BH10/0.9-1	BH11/1-1.2	BH12/0.2-0.4	BH13/0.3-0.5	BH14/0.3-0.7
		EILs	Depth (m)	0.9-1.0	1.0-1.2	0.2-0.4	0.3-0.5	0.3-0.7
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	640		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH10/0.9-1	BH11/1-1.2	BH12/0.2-0.4	BH13/0.3-0.5	BH14/0.3-0.7
		EILs	Depth (m)	0.9-1.0	1.0-1.2	0.2-0.4	0.3-0.5	0.3-0.7
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Methoxychlor	2,500	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	160	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin + Dieldrin	45	-		ND	ND	ND	ND	ND
Endosulfans - Total	2,000	-		ND	ND	ND	ND	ND
DDD + DDE + DDT	3,600	-		ND	ND	ND	ND	ND
Scheduled Chemical Wastes	-	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH15/0.3-0.6	DS2	RPD_DS2	TS2	RPD_TS2
		EILs	Depth (m)	0.3-0.6	-	-	-	-
	HILs - D	Commercial/	Type	Fill	-	-	-	-
		Industrial	Date	7/09/2022	7/09/2022	-	7/09/2022	-
4.4'-DDD	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
4.4'-DDE	-	-		< 0.05	< 0.5	*nc*	0.07	*nc*
4.4'-DDT	-	640		< 0.05	< 0.5	*nc*	< 0.05	*nc*
a-BHC	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Aldrin	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
b-BHC	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Chlordanes - Total	530	-		< 0.1	< 1	*nc*	< 0.1	*nc*
d-BHC	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Dieldrin	-	-		0.1	< 0.5	*nc*	< 0.05	*nc*
Endosulfan I	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Endosulfan II	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Endosulfan sulphate	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Endrin	100	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Endrin aldehyde	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Endrin ketone	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
g-BHC (Lindane)	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Heptachlor	50	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Heptachlor epoxide	-	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Hexachlorobenzene	80	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH15/0.3-0.6	DS2	RPD_DS2	TS2	RPD_TS2
		EILs	Depth (m)	0.3-0.6	-	-	-	-
	HILs - D	Commercial/	Type	Fill	-	-	-	-
		Industrial	Date	7/09/2022	7/09/2022	-	7/09/2022	-
Methoxychlor	2,500	-		< 0.05	< 0.5	*nc*	< 0.05	*nc*
Toxaphene	160	-		< 0.5	< 10	*nc*	< 0.5	*nc*
Aldrin + Dieldrin	45	-		0.1	ND	*nc*	ND	*nc*
Endosulfans - Total	2,000	-		ND	ND	*nc*	ND	*nc*
DDD + DDE + DDT	3,600	-		ND	ND	*nc*	0.07	*nc*
Scheduled Chemical Wastes	-	-		0.1	ND	*nc*	0.07	*35%*

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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287 Mona Vale Road
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	Criteria 1	Criteria 2	Sample ID	BH16/0.55-0.7	BH17/0.6-0.8	BH18/0.2-0.5	BH19/0.1-0.3	BH20/0.6-0.7
		EILs	Depth (m)	0.55-0.7	0.6-0.8	0.2-0.5	0.1-0.3	0.6-0.7
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
4.4'-DDD	-	-		0.17	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		0.72	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	640		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		1	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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	Criteria 1	Criteria 2	Sample ID	BH16/0.55-0.7	BH17/0.6-0.8	BH18/0.2-0.5	BH19/0.1-0.3	BH20/0.6-0.7
		EILs	Depth (m)	0.55-0.7	0.6-0.8	0.2-0.5	0.1-0.3	0.6-0.7
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Methoxychlor	2,500	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	160	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin + Dieldrin	45	-		1	ND	ND	ND	ND
Endosulfans - Total	2,000	-		ND	ND	ND	ND	ND
DDD + DDE + DDT	3,600	-		0.89	ND	ND	ND	ND
Scheduled Chemical Wastes	-	-		1.89	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH21/0.3-0.5	BH21/3.0-3.2	BH22/0.3-0.6	BH23/1-1.2	BH24/0.3-0.6
		EILs	Depth (m)	0.3-0.5	3.0-3.2	0.3-0.6	1.0-1.2	0.3-0.6
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	< 0.05	0.13	< 0.05	< 0.05
4.4'-DDT	-	640		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	0.07	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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	Criteria 1	Criteria 2	Sample ID	BH21/0.3-0.5	BH21/3.0-3.2	BH22/0.3-0.6	BH23/1-1.2	BH24/0.3-0.6
		EILs	Depth (m)	0.3-0.5	3.0-3.2	0.3-0.6	1.0-1.2	0.3-0.6
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Methoxychlor	2,500	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	160	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin + Dieldrin	45	-		ND	ND	0.07	ND	ND
Endosulfans - Total	2,000	-		ND	ND	ND	ND	ND
DDD + DDE + DDT	3,600	-		ND	ND	0.13	ND	ND
Scheduled Chemical Wastes	-	-		ND	ND	0.2	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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	Criteria 1	Criteria 2	Sample ID	BH25/0.5-0.8	BH26/0.4-0.6	BH27/0.2-0.5	BH28/0.3-0.6	BH29/0.8-0.9
		EILs	Depth (m)	0.5-0.8	0.4-0.6	0.2-0.5	0.3-0.6	0.8-0.9
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
4.4'-DDT	-	640		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Chlordanes - Total	530	-		< 0.1	< 0.1	< 1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Endrin	100	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Heptachlor	50	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Hexachlorobenzene	80	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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	Criteria 1	Criteria 2	Sample ID	BH25/0.5-0.8	BH26/0.4-0.6	BH27/0.2-0.5	BH28/0.3-0.6	BH29/0.8-0.9
		EILs	Depth (m)	0.5-0.8	0.4-0.6	0.2-0.5	0.3-0.6	0.8-0.9
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Methoxychlor	2,500	-		< 0.05	< 0.05	< 0.5	< 0.05	< 0.05
Toxaphene	160	-		< 0.5	< 0.5	< 10	< 0.5	< 0.5
Aldrin + Dieldrin	45	-		ND	ND	ND	ND	ND
Endosulfans - Total	2,000	-		ND	ND	ND	ND	ND
DDD + DDE + DDT	3,600	-		ND	ND	ND	ND	ND
Scheduled Chemical Wastes	-	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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	Criteria 1	Criteria 2	Sample ID	BH30/1-1.2	BLANK1	SPIKE1
		EILs	Depth (m)	1.0-1.2	-	-
	HILs - D	Commercial/	Type	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022
4.4'-DDD	-	-		< 0.05	--	--
4.4'-DDE	-	-		< 0.05	--	--
4.4'-DDT	-	640		< 0.05	--	--
a-BHC	-	-		< 0.05	--	--
Aldrin	-	-		< 0.05	--	--
b-BHC	-	-		< 0.05	--	--
Chlordanes - Total	530	-		< 0.1	--	--
d-BHC	-	-		< 0.05	--	--
Dieldrin	-	-		< 0.05	--	--
Endosulfan I	-	-		< 0.05	--	--
Endosulfan II	-	-		< 0.05	--	--
Endosulfan sulphate	-	-		< 0.05	--	--
Endrin	100	-		< 0.05	--	--
Endrin aldehyde	-	-		< 0.05	--	--
Endrin ketone	-	-		< 0.05	--	--
g-BHC (Lindane)	-	-		< 0.05	--	--
Heptachlor	50	-		< 0.05	--	--
Heptachlor epoxide	-	-		< 0.05	--	--
Hexachlorobenzene	80	-		< 0.05	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
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Table 3 : Summary of Soil Analytical Data - Organochlorine Pesticides

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH30/1-1.2	BLANK1	SPIKE1
		EILs	Depth (m)	1.0-1.2	-	-
	HILs - D	Commercial/	Type	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022
Methoxychlor	2,500	-		< 0.05	--	--
Toxaphene	160	-		< 0.5	--	--
Aldrin + Dieldrin	45	-		ND	--	--
Endosulfans - Total	2,000	-		ND	--	--
DDD + DDE + DDT	3,600	-		ND	--	--
Scheduled Chemical Wastes	-	-		ND	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 2201064

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	HA1/0.7-0.8	HA2/0.2-0.3	HA3/0.25-0.45	HA4/0.1-0.4	DS1
		EILs	Depth (m)	0.7-0.8	0.2-0.3	0.25-0.45	0.1-0.4	-
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	-
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Arsenic	3,000	160		32	10	< 2	< 2	< 2
Cadmium	900	-		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	3,600[1]	310[2]		54	70	13	16	13
Copper	240,000	85		< 5	< 5	< 5	< 5	8.1
Lead	1,500	1,800		< 5	12	7.1	9.7	7.3
Mercury	730	-		< 0.1	0.8	0.6	< 0.1	< 0.1
Nickel	6,000	55		< 5	< 5	< 5	< 5	< 5
Zinc	400,000	110		< 5	11	6.2	14	12

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
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Table 4 : Summary of Soil Analytical Data - Heavy Metals

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	RPD_DS1	TS1	RPD_TS1	HA4/1.2-1.3	HA5/0.7-0.8
		EILs	Depth (m)	-	-	-	1.2-1.3	0.7-0.8
	HILs - D	Commercial/	Type	-	-	-	Fill	Fill
		Industrial	Date	-	7/09/2022	-	7/09/2022	7/09/2022
Arsenic	3,000	160		*nc*	< 2	*nc*	< 2	< 2
Cadmium	900	-		*nc*	< 0.4	*nc*	< 0.4	< 0.4
Chromium	3,600[1]	310[2]		*21%*	15	*6%*	42	7.9
Copper	240,000	85		*nc*	5.1	*nc*	29	< 5
Lead	1,500	1,800		*28%*	8.1	*18%*	10	< 5
Mercury	730	-		*nc*	< 0.1	*nc*	< 0.1	< 0.1
Nickel	6,000	55		*nc*	< 5	*nc*	40	< 5
Zinc	400,000	110		*15%*	12	*15%*	34	< 5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 4 : Summary of Soil Analytical Data - Heavy Metals

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	HA6/0.5-0.6	BH7/0.8-0.9	BH7/2.5-2.6	BH8/0.3-0.5	BH9/0.3-0.6
		EILs	Depth (m)	0.5-0.6	0.8-0.9	2.5-2.6	0.3-0.5	0.3-0.6
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Arsenic	3,000	160		< 2	< 2	< 2	2.9	3.2
Cadmium	900	-		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	3,600[1]	310[2]		9	5.4	18	16	23
Copper	240,000	85		< 5	< 5	< 5	15	19
Lead	1,500	1,800		21	6.5	7.6	40	26
Mercury	730	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	6,000	55		< 5	< 5	< 5	11	8.7
Zinc	400,000	110		17	9.8	< 5	56	48

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 4 : Summary of Soil Analytical Data - Heavy Metals

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	Criteria 1	Criteria 2	Sample ID	BH10/0.9-1	BH11/1-1.2	BH12/0.2-0.4	BH13/0.3-0.5	BH14/0.3-0.7
		EILs	Depth (m)	0.9-1.0	1.0-1.2	0.2-0.4	0.3-0.5	0.3-0.7
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Arsenic	3,000	160		3.2	3.6	18	12	15
Cadmium	900	-		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	3,600[1]	310[2]		< 5	30	54	50	43
Copper	240,000	85		< 5	< 5	< 5	< 5	< 5
Lead	1,500	1,800		6	7.2	< 5	6.9	< 5
Mercury	730	-		< 0.1	0.1	< 0.1	< 0.1	< 0.1
Nickel	6,000	55		< 5	< 5	< 5	5.3	< 5
Zinc	400,000	110		< 5	< 5	< 5	< 5	< 5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
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Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

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Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH15/0.3-0.6	DS2	RPD_DS2	TS2	RPD_TS2
		EILs	Depth (m)	0.3-0.6	-	-	-	-
	HILs - D	Commercial/	Type	Fill	-	-	-	-
		Industrial	Date	7/09/2022	7/09/2022	-	7/09/2022	-
Arsenic	3,000	160		< 2	< 2	*nc*	2.1	*nc*
Cadmium	900	-		< 0.4	< 0.4	*nc*	< 0.4	*nc*
Chromium	3,600[1]	310[2]		15	21	*33%*	22	*38%*
Copper	240,000	85		6	14	*80%*	8.6	*36%*
Lead	1,500	1,800		7.8	8.9	*13%*	9.9	*24%*
Mercury	730	-		< 0.1	< 0.1	*nc*	< 0.1	*nc*
Nickel	6,000	55		< 5	7.1	*nc*	< 5	*nc*
Zinc	400,000	110		13	18	*32%*	21	*47%*

Notes:

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Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
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[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
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TS2 = triplicate of BH15/0.3-0.6
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Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH16/0.55-0.7	BH17/0.6-0.8	BH18/0.2-0.5	BH19/0.1-0.3	BH20/0.6-0.7
		EILs	Depth (m)	0.55-0.7	0.6-0.8	0.2-0.5	0.1-0.3	0.6-0.7
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Arsenic	3,000	160		< 2	16	2.1	3.2	< 2
Cadmium	900	-		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	3,600[1]	310[2]		22	10	17	16	8.7
Copper	240,000	85		14	< 5	9.8	10	< 5
Lead	1,500	1,800		13	42	7.5	17	7.3
Mercury	730	-		25	0.2	0.1	< 0.1	< 0.1
Nickel	6,000	55		13	< 5	7.8	7.9	< 5
Zinc	400,000	110		28	9.8	20	33	12

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH21/0.3-0.5	BH21/3.0-3.2	BH22/0.3-0.6	BH23/1-1.2	BH24/0.3-0.6
		EILs	Depth (m)	0.3-0.5	3.0-3.2	0.3-0.6	1.0-1.2	0.3-0.6
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Arsenic	3,000	160		< 2	< 2	< 2	< 2	2.4
Cadmium	900	-		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	3,600[1]	310[2]		13	20	19	15	13
Copper	240,000	85		< 5	< 5	6.1	< 5	9.3
Lead	1,500	1,800		32	6.9	17	11	9.2
Mercury	730	-		< 0.1	< 0.1	0.7	0.2	< 0.1
Nickel	6,000	55		< 5	< 5	< 5	< 5	< 5
Zinc	400,000	110		16	< 5	39	27	17

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH25/0.5-0.8	BH26/0.4-0.6	BH27/0.2-0.5	BH28/0.3-0.6	BH29/0.8-0.9
		EILs	Depth (m)	0.5-0.8	0.4-0.6	0.2-0.5	0.3-0.6	0.8-0.9
	HILs - D	Commercial/	Type	Fill	Fill	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022	7/09/2022	7/09/2022
Arsenic	3,000	160		< 2	3.2	< 2	< 2	< 2
Cadmium	900	-		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	3,600[1]	310[2]		15	15	8.4	11	11
Copper	240,000	85		8.2	14	15	5.3	8.2
Lead	1,500	1,800		11	53	14	< 5	8.8
Mercury	730	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	6,000	55		< 5	14	7.5	< 5	< 5
Zinc	400,000	110		19	31	35	< 5	10

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 2201064

287 Mona Vale Road
Terrey Hills, NSW

	Criteria 1	Criteria 2	Sample ID	BH30/1-1.2	BLANK1	SPIKE1
		EILs	Depth (m)	1.0-1.2	-	-
	HILs - D	Commercial/	Type	Fill	Fill	Fill
		Industrial	Date	7/09/2022	7/09/2022	7/09/2022
Arsenic	3,000	160		4.4	--	--
Cadmium	900	-		< 0.4	--	--
Chromium	3,600[1]	310[2]		11	--	--
Copper	240,000	85		13	--	--
Lead	1,500	1,800		37	--	--
Mercury	730	-		< 0.1	--	--
Nickel	6,000	55		5.9	--	--
Zinc	400,000	110		44	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for commercial/industrial, site specific values.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for Chromium (VI) used conservatively.
[2]Guideline for Chromium (III) used conservatively.
DS1 = duplicate of HA4/0.1-0.4
TS1 = triplicate of HA4/0.1-0.4
DS2 = duplicate of BH15/0.3-0.6
TS2 = triplicate of BH15/0.3-0.6
BLANK1 = blank sample
SPIKE1 = spike sample

RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

ATTACHMENT A

Plate 1 – View of south corner car park in the site.

Plate 2 – Drill rig set up near to the entrance of the site from Mona Vale road in the south-east side.

Plate 3 – View of southern portion of the site near the car park.

Plate 4 – Soil from the bore in one of the locations.

Plate 5 – Collection of soil samples into glass jars from the bore.

Plate 6 – Soil at different depths from same location.

Plate 7 – Driveway at west corner of the site connecting Myoora Road.

Plate 8 – Drill rig set up near the storm water retention dam at south-west side of the site.

Plate 9 – View of the driveway at the north of the site near to the market garden.

Plate 10 – View of waste storage location in the North-west portion of site.

Plate 11 – View of boreholes refilled with concrete after concrete cutting and soil sampling.

ATTACHMENT B

Job No 30878181

Phone: 1100
www.1100.com.au

Caller Details

Contact:	Alyson Bannister	**Caller Id:**	3030718	**Phone:**	0431 918 282
Company:	Geo-Logix				
Address:	Unit 2309 4 Daydream Street Warriewood NSW 2102	**Email:**	abannister@geo-logix.com.au		

Dig Site and Enquiry Details

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

User Reference: 287 Mona Vale Road

Working on Behalf of: Private

Enquiry Date:	**Start Date:**	**End Date:**
10/11/2021	15/11/2021	15/12/2021

Address:

287 Mona Vale Road
Terrey Hills NSW 2084

Job Purpose:	**Onsite Activities:**
Excavation	Mechanical Excavation
Location of Workplace:	**Location in Road:**
Private	

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

Notes/Description of Works:

Not supplied

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at **www.1100.com.au**
- **For more information on safe excavation practices, visit www.1100.com.au**

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days.
Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.
** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.
# Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
205121892	Ausgrid	(02) 4951 0899	NOTIFIED
205121893	Jemena Gas North	1300 880 906	NOTIFIED
205121890	NBN Co NswAct	1800 687 626	NOTIFIED
205121894	Optus and or Uecomm Nsw	1800 505 777	NOTIFIED
205121895	Sydney Water	13 20 92	NOTIFIED
205121891	Telstra NSW Central	1800 653 935	NOTIFIED

END OF UTILITIES LIST

If further information is required, please contact:
Ausgrid DBYD
Phone: (02) 4951 0899
Fax: (02) 4951 0729

Emergency Phone Number 131388

Underground Cable Location Search Advice

-- Ausgrid Assets Affected –

To:	Alyson Bannister Geo-Logix Unit 2309,4 Daydream Street Warriewood NSW 2102		
		Phone No:	+61431918282
		Issue Date:	11/11/2021

In response to your enquiry, Sequence No: 205121892 the records of Ausgrid disclose that there **are** Ausgrid underground cables in the defined search location and relevant Ausgrid plans have been provided.

This search is based on the geographical position of the dig site as denoted in the Dial Before You Dig caller confirmation sheet and an overview is provided:

Address:	287 Mona Vale Road Terrey Hills NSW 2084
Job #:	30878181

Important

- All information provided to you is **ONLY VALID FOR 30 DAYS** from the date of issue
- You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret plans.
- If you require a full size print of A0 plans and don't have the resources to do so please contact our office on 49510899 to request a hard copy to be posted. **Please allow 3 working days for delivery.**
- Please note you will ONLY receive portions of your search area that contain Ausgrid Underground Assets

YOU MUST READ AND UNDERSTAND THE *SUPPLEMENTARY MATERIAL* CONTAINED IN THIS ADVICE BEFORE PROCEEDING WITH ANY WORKS.

Summary of Supplementary Information:

Material	Purpose	Location
Important Information.pdf	Details important information	Attached
Working near Ausgrid Cables.pdf	Summary of NS156	Attached
COMN0119 How to Read Ausgrid Plans.pdf	Details how to read Ausgrid plans	Attached
SafeWork NSW "*Work near underground assets: Guide*"	To assist you in deciding appropriate measures to eliminate or control risks when working near underground assets.	Web Link [Click Here]
Ausgrid's Network Standard NS156	For important information for work near or around underground cables	Web Link [Click Here]
Ausgrid's Network Standard NS199	This Network Standard applies to specific work on Ausgrid Low Voltage Underground Assets and associated Hazards	Web Link [Click Here]
Working in Confined Spaces	For important information when working in confined spaces	Web Link [Click Here]

Reading Ausgrid Plans
COMN0119

1 Property Lines

"property line" (PL), sometimes referred to as **"building line" (BL),** is the standard dimensioning reference point on all Ausgrid plans and represents property boundaries.

Typically, the PL is the boundary between private property and local council's footpath area or nature reserve. Most residential fences and office blocks are erected along the PL.

"kerb line" (KL) is less frequently referred to on Ausgrid plans, and where used will be identified clearly as KL.

Numbers listed within property boundaries should correspond to recognised "street numbers" (refer to figure 1).

Figure 1

2 Datum References

"datum references" identify distances (in metres) from significant features (such as corners of property boundaries) to reference points such as Ausgrid assets (eg: "conduits", "cables", "joints") (refer to figure 2).

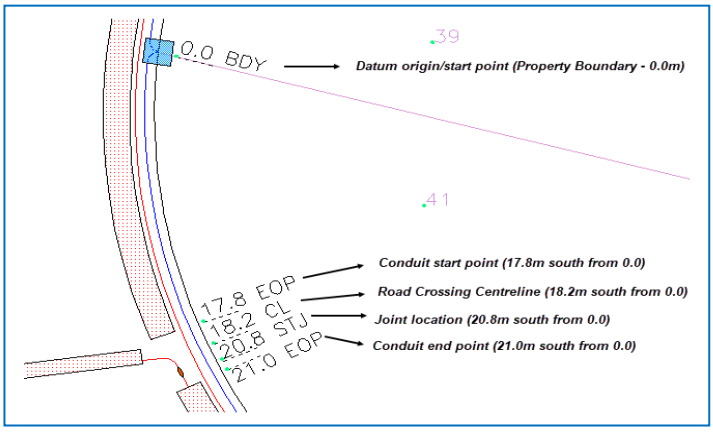


Figure 2

3 Cross Sections

A "cross sections" displayed on Ausgrid plans detail information relating to the relative position (ie: distance from the **"property line",** and the depth of **"cover"**) of Ausgrid assets.

"Cover" is a term used to refer to the depth of cables underground.

A "cross section" leader line will be drawn indicating the location of the displayed **"cable"** or **"conduit"** information on Ausgrid plans.

The distance from **"property line"** (in metres) and depth of **"cover"** (in metres) references are displayed as; ie: 0.6 metres from PL and 0.5 metres underground.

Where distance and cover are not recorded, they will be clearly marked as **"NR".**

NOTE: Distance and cover where indicated may be different to the actual position of the cables (eg: fill may have been placed at site that has changed the ground level).

"PL" distance shown in cross sections is an indicative measure to the centre of the trench allocation from the adjacent property line.

On some plans the "cross sections" may also be shown with a specific number (eg: HR1). This number will match with a cross section detail found in the border of the plot or on a separate plot page (refer to figures 3 and 4).

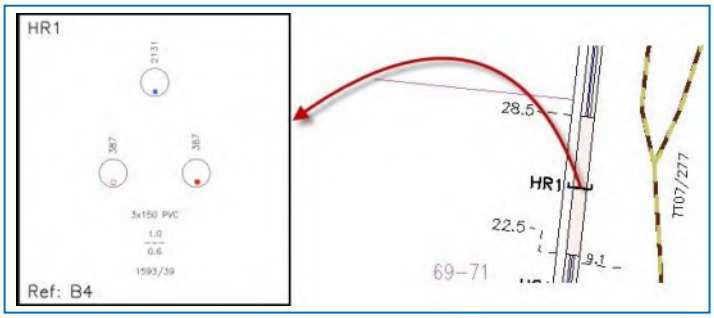


Figure 3

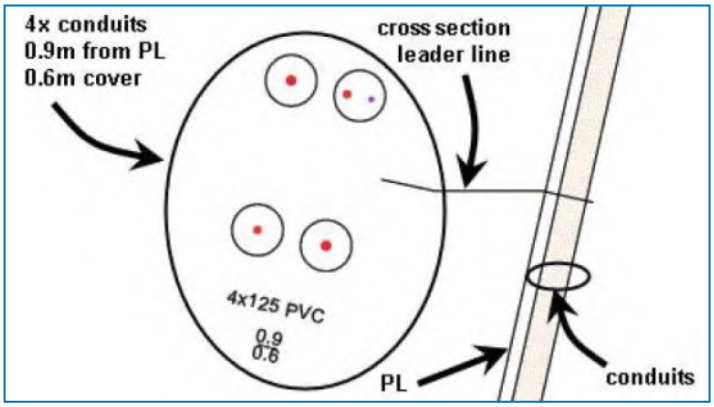


Figure 4

4 Cable Joints and Joint Reports

"cable joints" (numbered individually) and **"joint reports"** (attached to Ausgrid plans) can provide information relating to the relative position of Ausgrid assets, distance from the "property line" (in metres), and the depth of "cover" (in metres) (refer to figures 5 and 6).

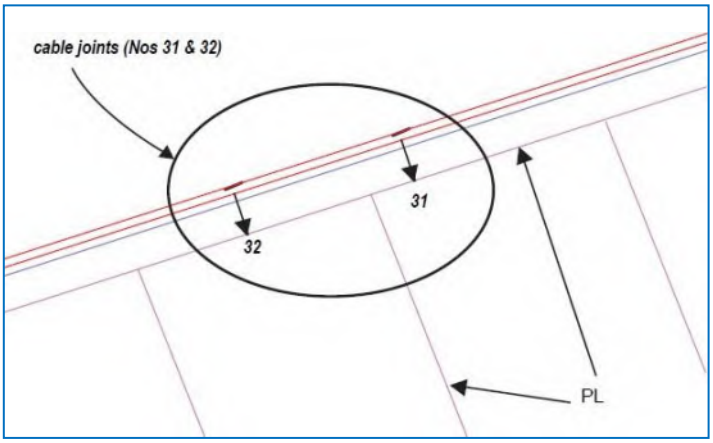


Figure 5

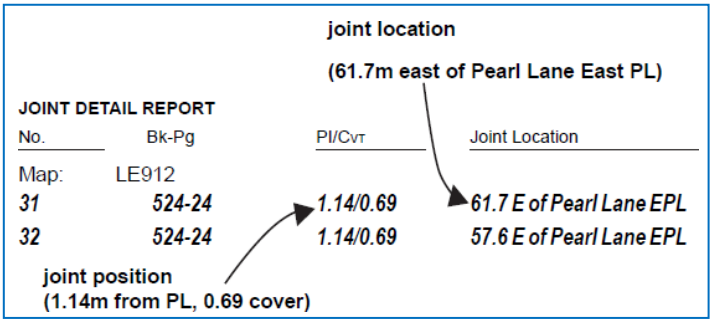


Figure 6

5 Cross Section Detail Boxes

"cross section" detail boxes on the sides of an Ausgrid plan are used when there is insufficient room to display **"cable"** and/or "conduit" information on the Ausgrid plan.

Ausgrid plans (refer to figure 7) are bordered by numeric identifiers along the top and bottom borders and alpha identifiers along the side borders.

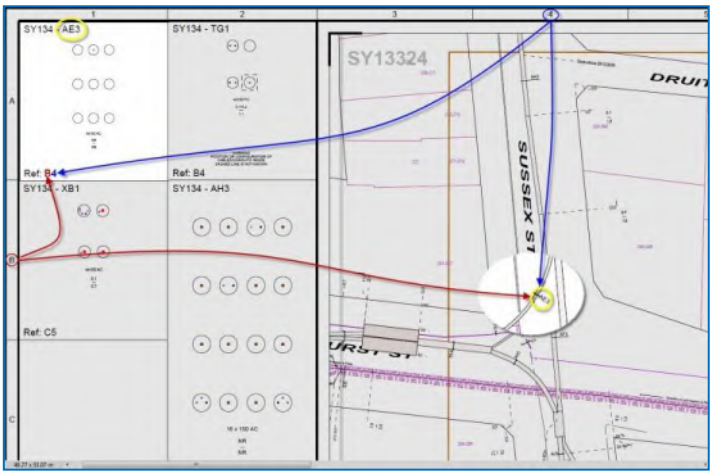


Figure 7

"Cross section" leader line and annotation is drawn on the Ausgrid plan for a reference to **"cable"** and/or **"conduit"** information in the **"cross section"** detail boxes. There are areas where underground work may have been issued for construction by Ausgrid, but details are not yet completely displayed on Ausgrid plans. In such cases a shaded "proposal area" is displayed on the Ausgrid plan, indicating underground work may have commenced in the vicinity but is not yet complete.

6 Pits

Underground **"pits"** are numbered on Ausgrid plans, positioned relative to the **"property line" (PL)**, and can be found on either the footpath (nature strip) or the road (refer figure 8).

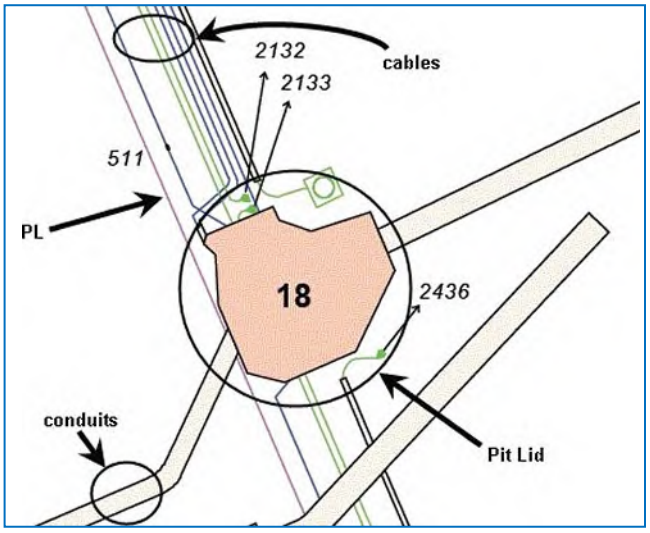


Figure 8

7 Proposal Areas

In some instances, cables and other assets within the shaded **"proposal area"** will be shown in a **bright magenta** colour, indicating that the proposed new work displayed within the shaded area is based on initial planning documentation (refer to figure 9).

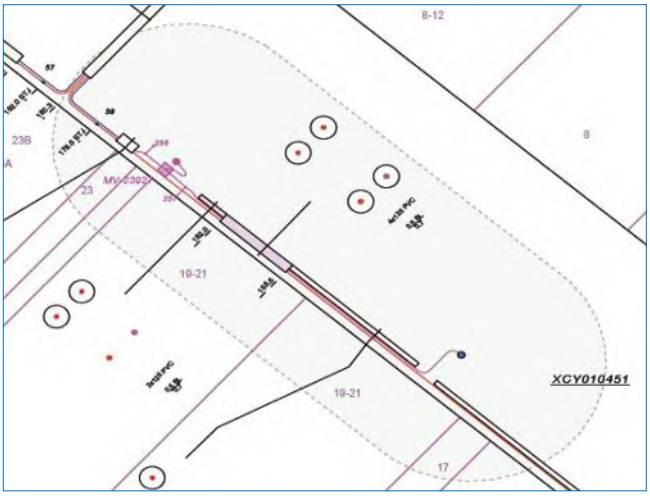


Figure 9

In other instances, the shaded **"proposal area"** itself may be shown as a blue colour, indicating that the new work displayed within the shaded area on the Ausgrid plan is yet to include details regarding final depths and dimensioning (refer to figure 10).

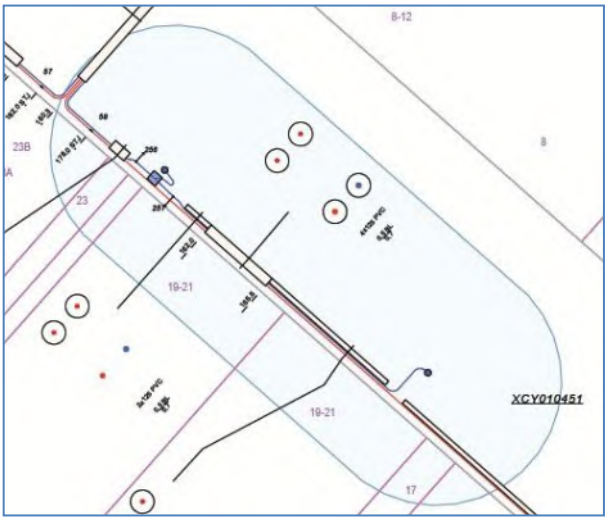


Figure 10

NOTE: In cases where these shaded **"proposal areas"** are displayed on Ausgrid plans.

"Ausgrid's design plans showing the proposed position of its underground cables, overhead lines and structures have been prepared solely for Ausgrid's own planning use. They show the proposed position of such underground cables, overhead lines and structures as proposed at the time of planning and have not necessarily been corrected to take into account any changes to road widths, road levels, fences and buildings subsequent to proposed installation.

Actual installations may vary from proposed installations as it may be necessary to take account of unforeseen above ground or subterranean constructions. Therefore, Ausgrid does not hold out that the design plans show more than the proposed presence or absence of its underground cables, overhead lines and structures in the street and will accept no liability for inaccuracies in the information shown on such design plans from any cause whatsoever."

Any further information regarding information displayed for "proposal areas" can be obtained by contacting the Ausgrid Dial Before You Dig (DBYD) office at the number indicated on the response to your DBYD enquiry for further information.

8 Ausgrid Maps

Depending on the size of the DBYD request, the response will either be a **single map area** or **a cover sheet** and several standard maps.

8.1 Single Map Area Response

The single map area response will have a buffer area shown on the plan that should relate to the original Dial Before You Dig request.

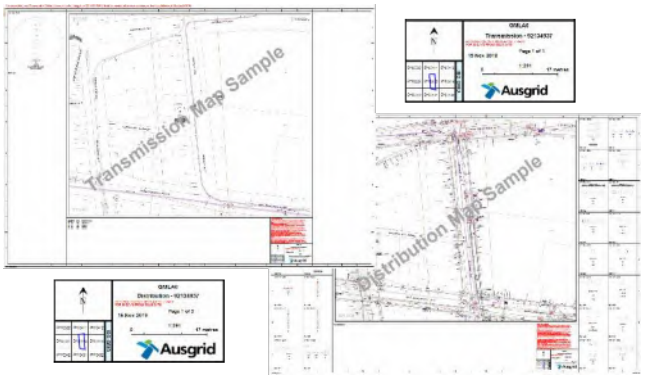


Figure 11

The **map grid index box** on Ausgrid plans should be used when reading the **"joint report"** (see part 4 of this document for more detail) to accurately locate underground cables. The buffer area will display on the grid index box for single map area responses

There are two different size maps that can be produced – A3 will be issued if there are no cross sections in the area, and an A0 will be issued if there are cross sections that are required to be displayed in the detail boxes on the side.

A single map area response could include two maps in the Sydney region. Ausgrid plans are separately labelled as "**Distribution – nnnnnnn"** and **"Transmission – nnnnnnn"**, where **"nnnnnnn"** refers to the DBYD sequence number quoted. If the request does not include any Transmission assets, then only one Distribution map will be issued.

In the Hunter region, the Ausgrid plans show combined **"distribution"** and **"transmission"** voltage assets, are clearly labelled as **"Distr + Trans – nnnnnnn"** where **"nnnnnnn"** refers to the DBYD sequence number.

Some Hunter plans may have transmission cables in the area, when these cables are present there will be a warning printed at the top of the plan supplied: "**"You are working near Transmission Cables. You must contact Ausgrid on (02) 4951 9200 at least two weeks before work commences. See Ausgrid Network Standard NS156"**

8.2 Cover Sheet Response

On a response that includes a cover sheet, the buffer area will only be shown on the cover sheet and it will not appear on the standard maps. The cover sheet will indicate which standard maps have been included and provide a high-level view of the location of the underground details (Figure 12). The standard maps will have the detail of the underground assets (Figure 13).

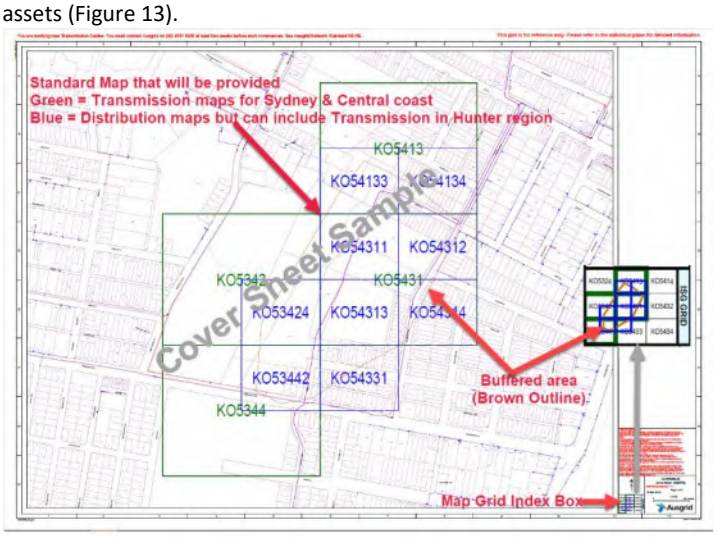


Figure 12

A **map grid index box** has been included in the cover sheet and on the standard maps. The buffer area will only display on the grid index box on the cover sheet and not on standard maps (Figure 12 + Figure 13).

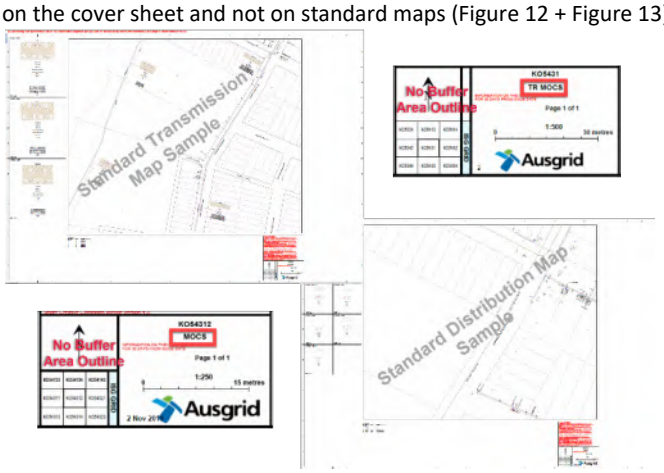


Figure 13

9. Shifting Land Base" on Ausgrid Distribution and Transmission Plans

In some instances, the plans supplied may indicate road or property outlines that appear to have shifted in relation to the Ausgrid assets displayed (refer to figure 14).

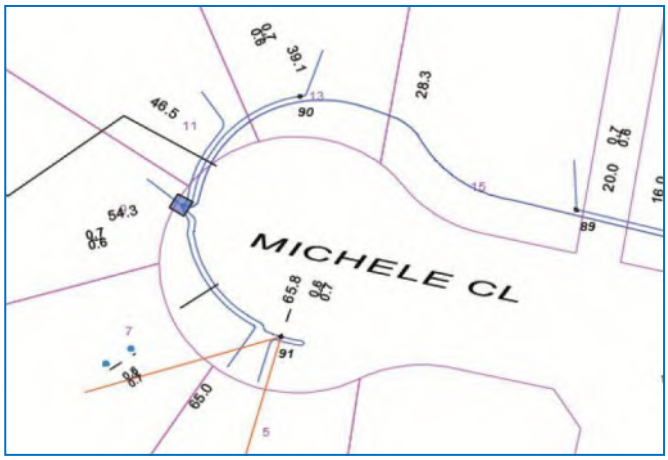


Figure 14

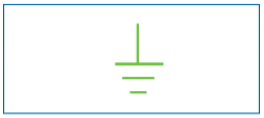
In such instances, always refer to the **"property line"** (in metres) and depth of **"cover"** (in metres) references displayed on the nearest relevant **"cross sections"** to obtain Ausgrid asset location information (*see* Reading Ausgrid Plans, clause 3, Cross Sections for more detail).

10. "Underground Earthing Infrastructure"

In some instances, the plans supplied may also indicatethe presence of underground earthing infrastructure associated with underground and/or overhead Ausgrid assets.

The **"Earth Point"** symbol (refer to figure 15) will be shown on plans to minimize risk of disturbance or damage to any Ausgrid underground earthing infrastructure in the vicinity.

Figure 15



11. Hazardous Cables – Specific Excavation Hazard

Certain low voltage cables are susceptible to deterioration or defects that may pose a risk of electric shock when working near them particularly in damp ground. Other low voltage cables may have an exposed conductive sheath or armour which may, under certain conditions, become energised. These cables may pose a significant risk and will be illustrated as in figures 15 and 16 below.
For all work on or near Ausgrid's network where workers have been trained in Ausgrid's "Working near or around underground cables" course the work practices outlined in NS156 "Working near or around underground cables", NS199 "Safe Electrical Work on Low Voltage Underground Assets" for low voltage cables susceptible to deterioration and the Electrical Safety Rules for low voltage exposed conductive sheath or armoured cables must be adhered to.
All other persons must contact Ausgrid before excavating near or accessing areas where these cables are present to arrange for appropriate precautions to be applied.

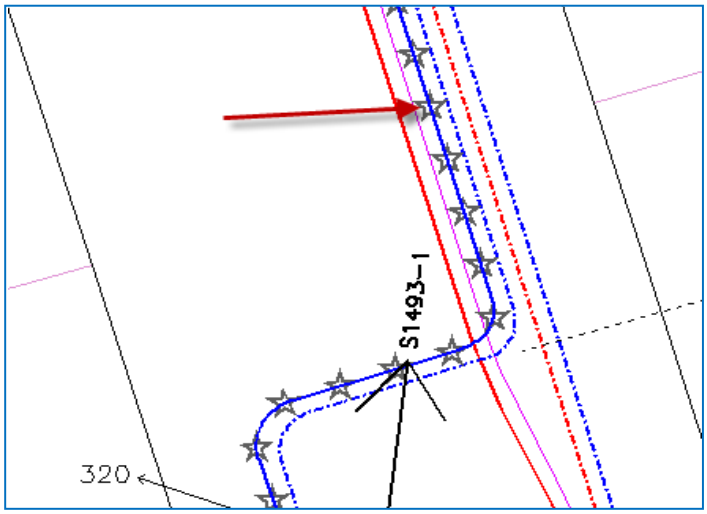


Figure 15

The **"star"** symbols over the cable indicates that it may be susceptible to deterioration or defects or the cable may contain an exposed conductive sheath or armour which could pose an electrical risk to workers.
Cables that are in duct lines have this symbology covered so an at-risk cable is indicated only within a cross section by a **"#"** appended to its cable code as illustrated below.

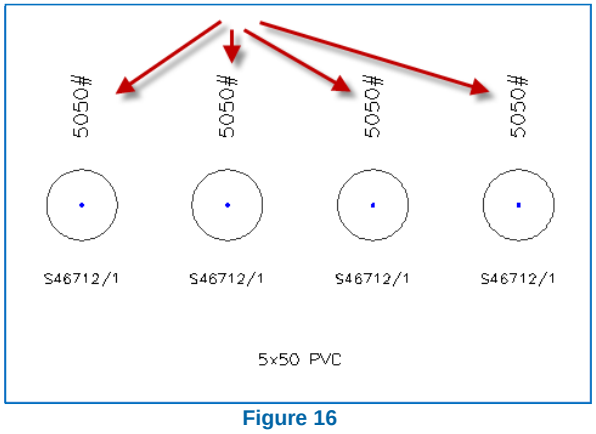


Figure 16

Ausgrid Underground Map Symbology

NOTE: Please note symbology is subject to change. This document provides underground (UG) related objects only. In cases where you are unsure of the data presented, please contact Ausgrid's DBYD for clarification *prior* to any planning/excavation works.

Object		Symbol
HV Cable	HV (High Voltage) 5kV-22kV	In Service / Out of Service
	TR (Transmission) 33kV – 330kV	In Service / Out of Service
LV Cable (Low Voltage)	Mains (Dark blue)	In Service / Out of Service
	Street Lighting (Green) Note: Mains Connector also used as Street Lighting (dark blue)	In Service / Out of Service
	Service (Light blue)	In Service / Out of Service
	Stars are used to highlight At Risk cables	In Service Risk / In Service Risk / In Service Risk
	Unknown	
Auxiliary Cable	Data	In Service / Out of Service
	Comms	
	Telco	
	Protection	
	Fibre Optic	
	Pilot	

Object		Symbol
HV UG Joint	Straight Through, Parallel Branch or Tee	
	Switchgear, End Box or Transition	
HV UG Termination	Sealed end	
	Pot End	
	UGOH	
HV Cable Repair	5kV-330kV (HV & TR)	
LV UG Joint	Straight Through, Parallel Branch, Tee or Service	
	Network Box	
LV UG Termination	Switchgear, End Box or Transition	
	Sealed end	
	Pot End	
	UGOH	

Object		Symbol
Auxiliary Fix	Pilot Window	
Auxiliary Joint	Straight Through, Parallel Branch or Tee	
Auxiliary Termination	UGOH or Pole Termination	
	Pilot	P
	UGOP-ADSS Termination	
Cable Pit (Can be various shapes)	Auxiliary	
	Distribution	
	Transmission	
LV Pillar	Distribution	
	Switch	1-3 WAY / 4+WAY
	SL Pillar	NO SLCP / SLCP
	SL Cubicle	
	Fargo	F
	Private	P
LV Auxiliary Pillar	All Types	
LV Link Box	2 Way & 4 Way	

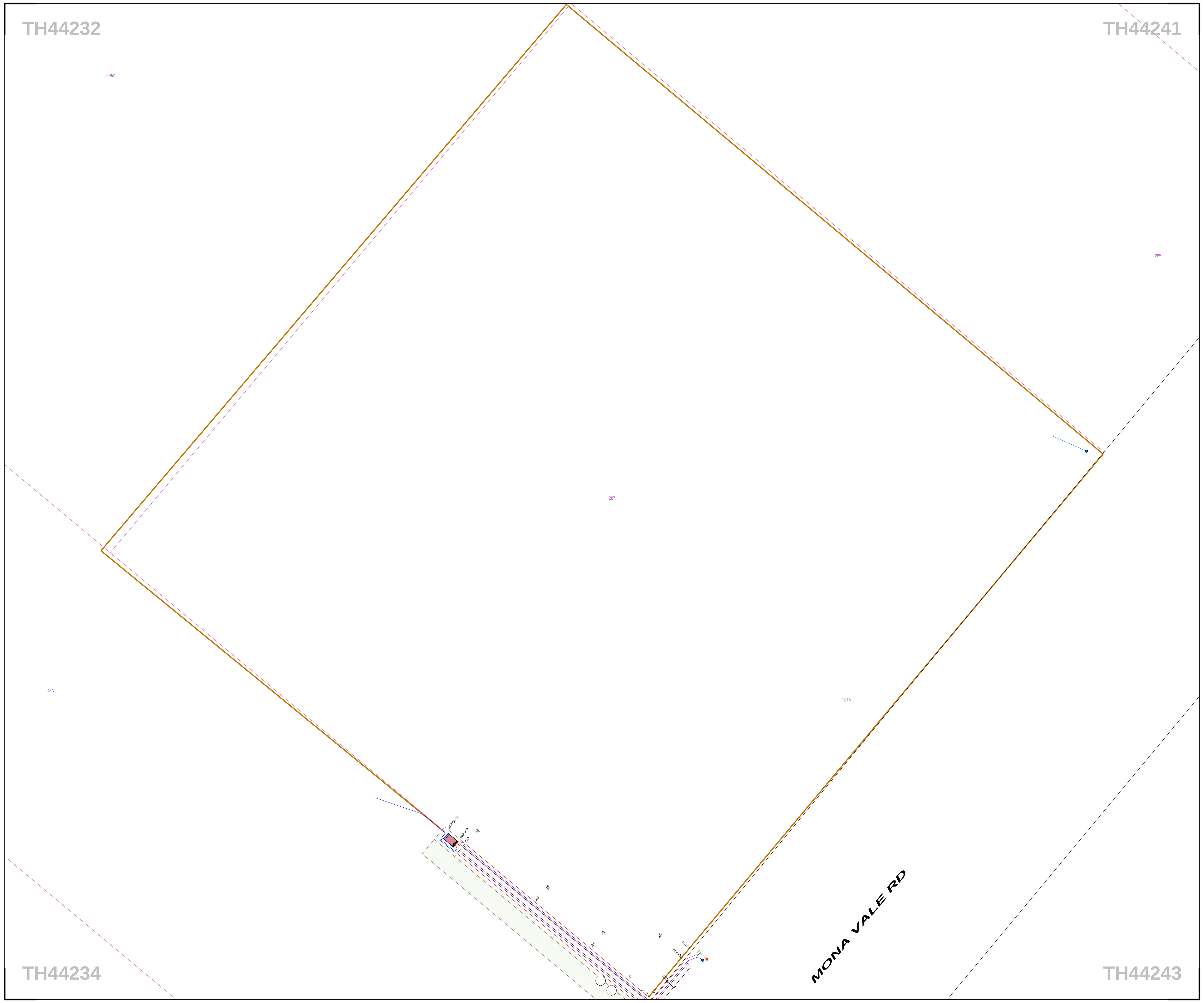
Ausgrid Underground Map Symbology

Object		Symbol
Substation	Cottage & Chamber	
	Ground & Subtransmission Ground	
	Kiosk & Subtransmission Kiosk	
	Zone	
	Transmission	T
	Bulk Supply Point	BSP
	Metering Station & Subtransmission Metering	
Switching Station	Isolating & Earth	
	Other – OH & UG	
	Ring Main Unit	
Earthing	UG Earth Cable	
	Earth Point	
Frequency Marker	Distribution and Transmission Power	FM Ball or Disc Type Marker
	Auxiliary Communications	FM Ball or Disc Type Marker
	Distribution and Transmission Power	Tape Marker
	Auxiliary Communications	Tape Marker

Object		Symbol
Trench	Centreline	
Conduit (Can be various shapes)	Coverage (Distribution)	
	Coverage (Transmission)	
	Coverage (Underbore – cross hatched)	
Cross Section	Marker (Staple)	
	User Line	
Measure-ment Point		
Miscella-neous Point Feature	Cable Clamp	
	Cable Core split (Trifurcation)	
	Cable Marker	
	Electrolysis Point	
	End Of Pipe	
	Frequency Injection Unit	IU
	Gas Charger	G
	Gas Control Cabinet	
	Gas Control Kiosk	
	Gas Control Point	
	Gas Control Valve	GV
	Gatic Pit lid	

Object		Symbol
Miscella-neous Point Feature	Inspection Box	
	Link point	
	Oil Control Valve	
	Oil Gauge	
	Oil Tank	
	Sniffer Box	
	Thermocouple Box	
	Transmission Cable Marker	
	Transmission Link Point	
Miscella-neous Linear Feature	All Geometries	
Map Note	Location & Text	Text about note
Dimension Feature	Placement Change	
Lead Cable	Oil/Gas/ Thermocouple	
	Bonding	
	Electrolysis	

Ausgrid



WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the street.
Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed using safe work methods developed in accordance with the recommendations included in Safework NSW Code of Practice for Excavation and Safework NSW Guide for Work Near Underground Assets
as well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable Safework NSW Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 4.0.

N

TH44214	TH44223	TH44224
TH44232	TH44241	TH44242
TH44234	TH44243	TH44244

ISG GRID

GMLA0

Distribution - 205121892

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

11 Nov 2021

Page 1 of 1

1:320

0 **19 metres**

Ausgrid

Jemena Gas Network Protection

High Pressure - Assets Affected

This information is only valid for 28 days from the date of issue

In reply to your enquiry, there are **High Pressure Gas Mains** in the vicinity of your intended work, as generally illustrated on the attached map. There may also be other mains or services at the location, as discussed in the warning below. **For an explanation of the map, please see the information below and the legend attachment.**

Excavation Guidelines

Prior to **any** excavations in this area, you ***must*** contact the High Pressure Response Coordinator to arrange a survey via:

http://mygasservices.jemena.com.au (High Pressure Works / High Pressure Standby)

Please note that a duty of care exists to ensure gas assets are not compromised or damaged. Jemena's expectation is the excavator operator holds a current Verification of Competency (VOC) or equivalent for the machine to be used near Jemena High Pressure Gas Assets.

Further standby enquiries can be directed to the High Pressure Coordinator -

E: infrastructureprotection@jemena.com.au or PH: 1300 665 380

Appointments will be coordinated with availability of a Jemena Representative to arrange a survey. For all works in the vicinity of High Pressure Gas Mains you must arrange for a Jemena Representative to attend and supervise all excavations. Charges may apply.

In accordance with clause 34(5) of the Gas Supply (Safety and Network Management) Regulation 2013 (NSW), you should be informed that all excavation, (including pot-holing by hand to confirm the location of pipes) should be performed in accordance with "***Work Near Underground Assets Guideline"*** *published in 2007 by the Work Cover Authority.*

A copy of this Guideline is available at: www.safework.nsw.gov.au

Warning: The enclosed plans show the position of Jemena Gas Networks (NSW) Ltd's underground gas mains and installations in public gazetted roads only. **Individual customers' services and services belonging to other third parties are not included** on these plans. These plans have been prepared solely for the use of Jemena Gas Networks (NSW) Ltd and Jemena Asset Management Pty Ltd (together "**Jemena**") and any reliance placed on these plans by you is entirely at your own risk. The plans may show the position of underground mains and installations relative to fences, buildings etc., as they existed at the time the mains etc were installed. The plans may not have been updated to take account of any subsequent change in the location or style of those features since the time at which the plans were initially prepared. Jemena makes no warranty as to the accuracy or completeness of the enclosed plans and does not assume any duty of care to you nor any responsibility for the accuracy, adequacy, suitability or completeness of the plans or for any error, omission, lack of detail, transmission failure or corruption in the information provided. Jemena does not accept any responsibility for any loss that you or anyone else may suffer in connection with the provision of these plans, however that loss may arise (including whether or not arising from the negligence of Jemena, its employees, agents, officers or contractors). The recipient of these plans must use their own care and diligence in carrying out their works and must carry out further surveys to locate services at their work site. Persons excavating or carrying out other earthworks will be held responsible for any damage caused to Jemena's underground mains and equipment. Jemena advises that you may be required to carry out potholing by hand if required by a Jemena Representative to confirm the location of Jemena's main and installations. This must also be performed by you under the supervision of a Jemena Representative and be carried out in accordance with the Working Near Underground Assets Guideline published in 2007 by Work Cover Authority

In case of Emergency Phone 131 909 (24 hours)

Admin 1300 880 906

Jemena Gas Networks
Dial Before You Dig Map Legend

Dec 2020 ver2

Network Mains

- Proposed New Main (coloured as per kPa)
- Proposed Isolate (coloured as per kPa)
- Unknown kPa
- 2kPa Low Pressure gas main
- 7kPa Low Pressure gas main
- 30kPa Medium pressure gas main
- 100kPa Medium Pressure gas main
- 210kPa Medium Pressure gas main
- 300kPa Medium Pressure gas main
- 400kPa Medium Pressure gas main
- 1050kPa High Pressure gas main
- 3500kPa High Pressure gas main
- 7000kPa High Pressure gas main
- >7000kPa Transmission pipeline
- Isolated Service - Former Med/High Pressure
- Isolated Steel Main -**Treat as High Pressure**

100 PVC — Conduit or Casing Size & Material (see conduit material codes)

Critical Main -**Treat as High Pressure** (Main coloured as per kPa)

EXPOSED — Exposed Main section

SHALLOW-SP — Shallow Main section: see Protection Code below, no code assume no protection

SP	Steel Plate	CE	Concrete Encased
PP	PE Plate	UNK	Unknown Type
CS	Concrete Slab		

Network Assets

- Siphon
- Network Valve
- High Pressure Main Line Valve (=>1050kPa)
- High Pressure Automatic Line Break Valve (>1050kPa)
- Distribution Regulator Set (=<1050kPa)
- High Pressure Regulating Station (>1050kPa)

Annotations

Pipe and Conduit Material Codes

NY	Nylon	NB	Nominal Bore – Cast Iron
PE	Polyethylene	ST	Steel
P/PL	Plastic (undefined)	C/CO	Copper
PVC	Polyvinyl Chloride		

Pipe code combinations and dimension references

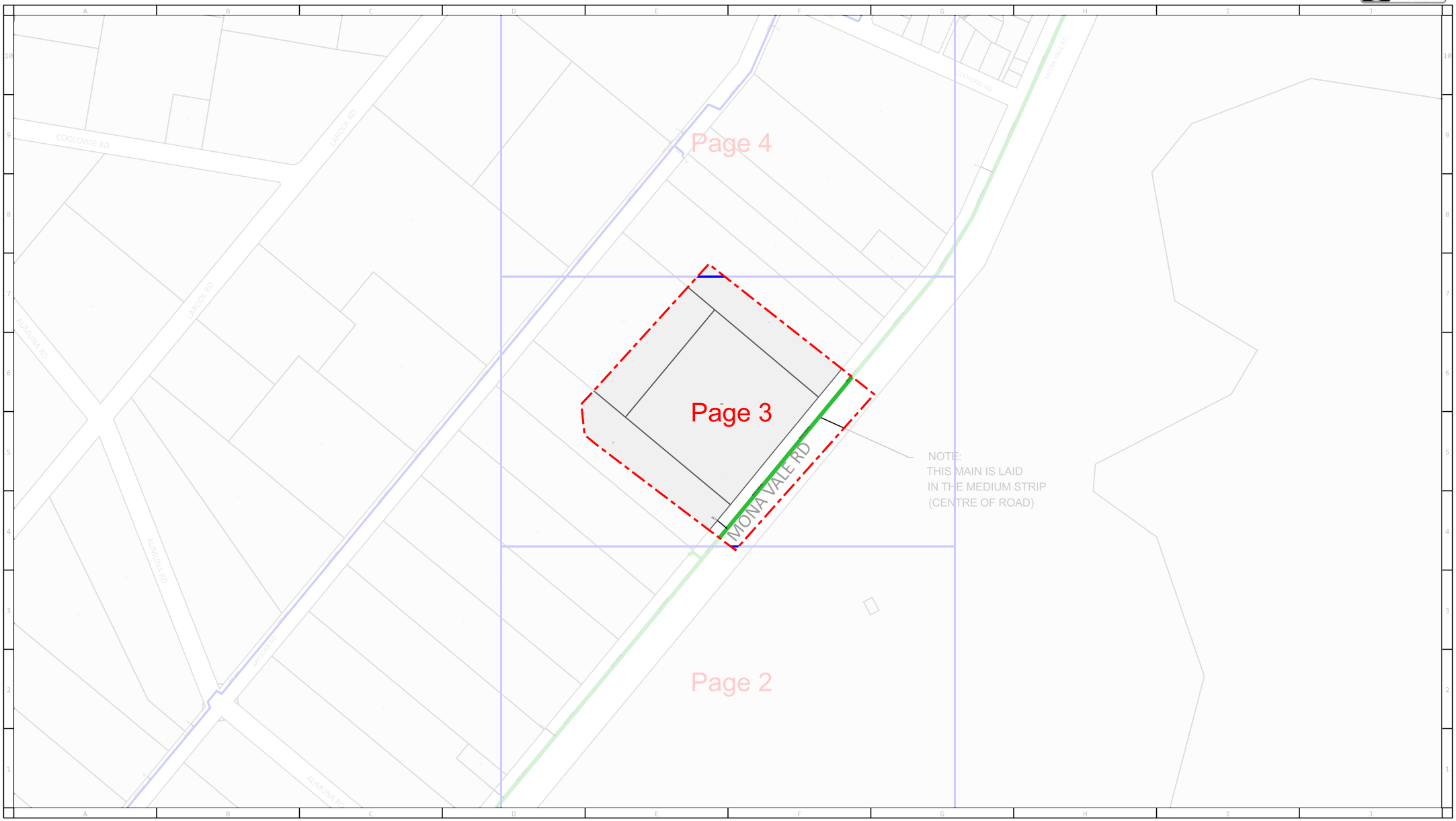
6NB 50MM NY — 50mm Nylon main inserted into 6 inch (Nominal Bore) Cast Iron pipe

50MM 32MM NY — 32mm Nylon main inserted into 50mm Steel pipe

~1.5 — Distance (in metres) of main from Boundary Line (MBL)

MBK	Distance in Metres Back of Kerb
MKL	Distance in Metres from Kerb Line
MEBL	Distance in Metres from Eastern Boundary Line (North/South/West)
MCL	Distance in Metres from Centre Line of Road
MFL	Distance in Metres from Fence Line

DBYD Authority: Jemena Gas Networks (NSW) **DBYD Location:** 287 Mona Vale Road Terrey Hills NSW, 2084



Jemena
ABN 87 003 004 322

For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

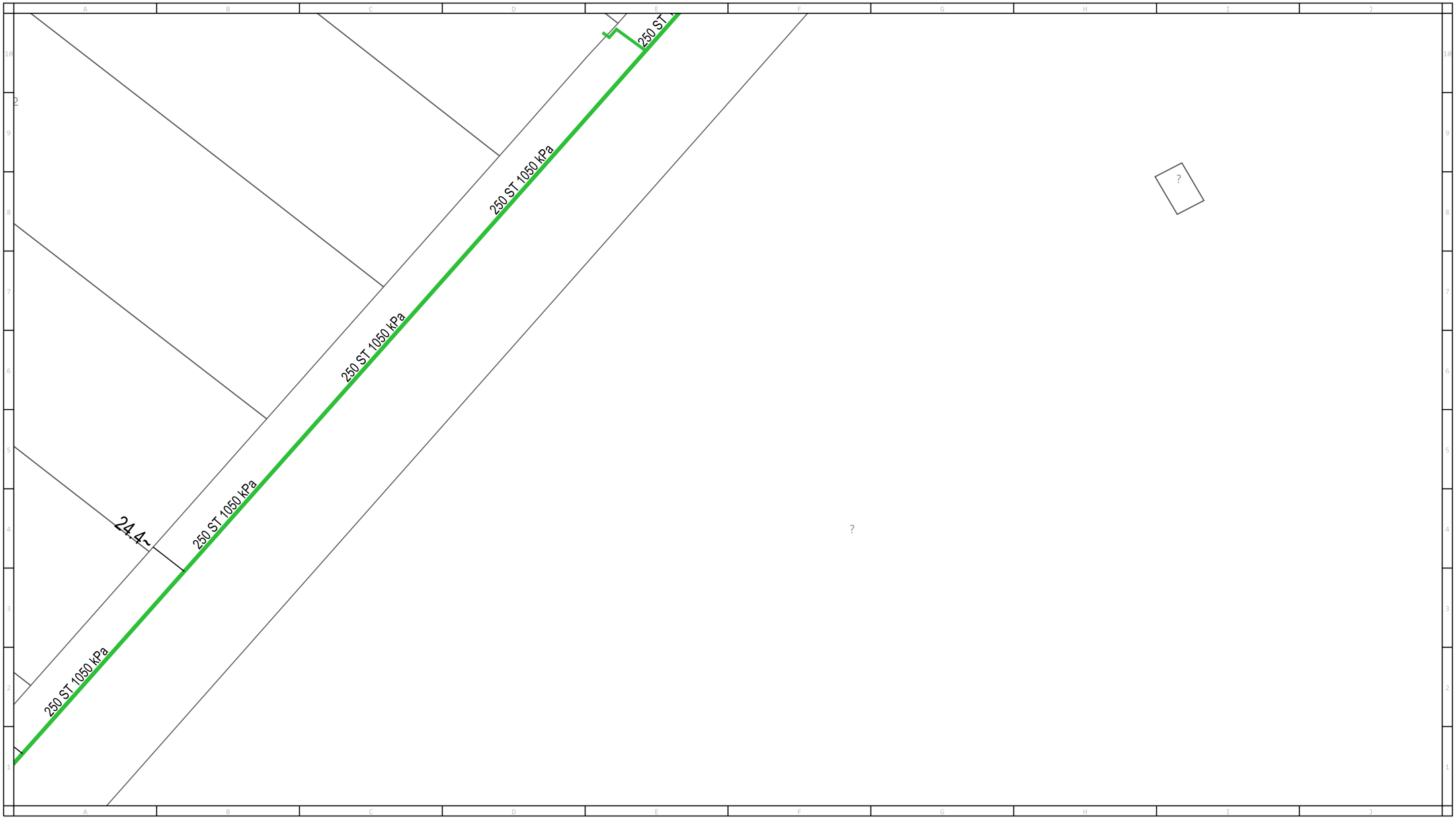
N W E S

Scale: 1:6301

Issue Date: 11/11/2021
DBYD Seq No: 205121893
DBYD Job No: 30878181
Overview Page:

WARNING: This is a representation of Jemena Gas Networks underground assets only and may not indicate all assets in the area. It must not be used for the purpose of exact asset location in order to undertake any type of excavation. Please read all conditions and information on the attached information sheet. This extract is subject to those conditions. The information contained on this plan is only valid for 28 days from the date of issue.

DBYD Authority: Jemena Gas Networks (NSW) **DBYD Location:** 287 Mona Vale Road Terrey Hills NSW, 2084



Jemena
ABN 87 003 004 322

For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

N W E S

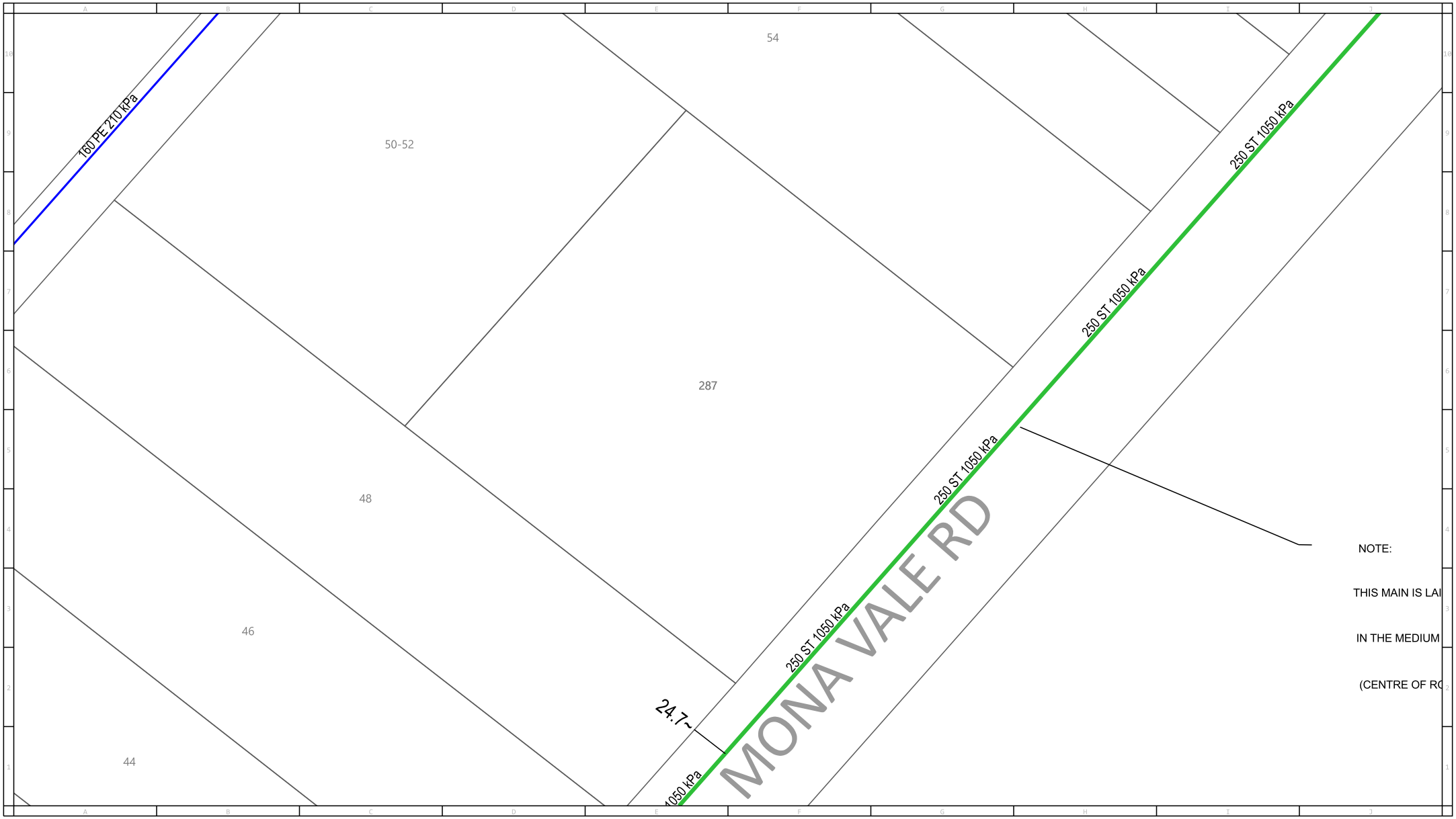
Issue Date: 11/11/2021
DBYD Seq No: 205121893
DBYD Job No: 30878181

0m 10m 20m 30m 40m 50m 60m 70m 80m

Scale: 1:2000

WARNING: This is a representation of Jemena Gas Networks underground assets only and may not indicate all assets in the area. It must not be used for the purpose of exact asset location in order to undertake any type of excavation. This plan is diagramatic only, and distances scaled from this plan may not be accurate. Please read all conditions and information on the attached information sheet. This extract is subject to those conditions. The information contained on this plan is only valid for 28 days from the date of issue.

DBYD Authority: Jemena Gas Networks (NSW) **DBYD Location:** 287 Mona Vale Road Terrey Hills NSW, 2084



Jemena
ABN 87 003 004 322

For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

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Issue Date: 11/11/2021
DBYD Seq No: 205121893
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Scale: 1:2000

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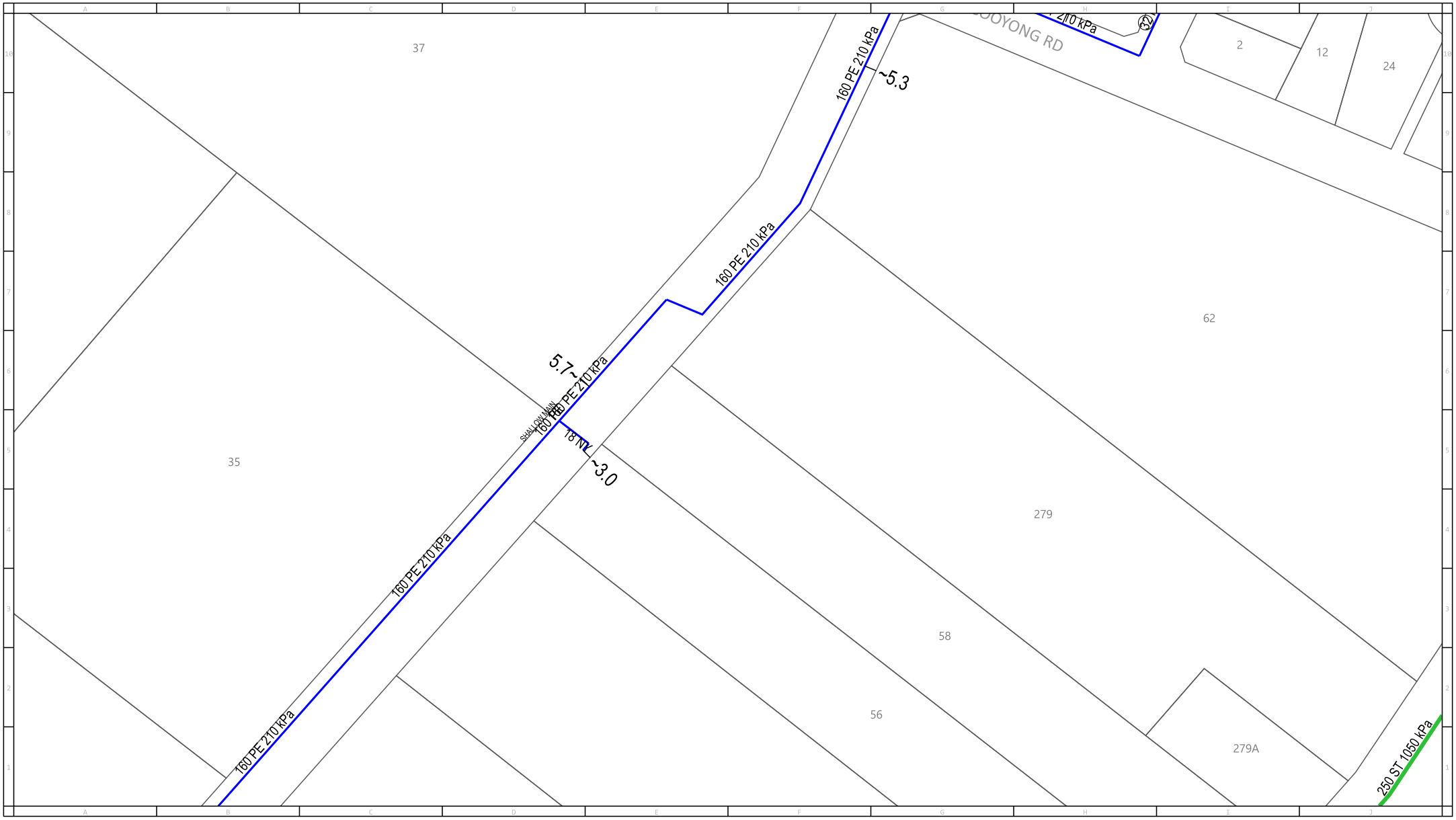


Jemena
ABN 87 003 004 322

For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

Issue Date: 11/11/2021
DBYD Seq No: 205121893
DBYD Job No: 30878181
Scale: 1:2000

0m 10m 20m 30m 40m 50m 60m 70m 80m

WARNING: This is a representation of Jemena Gas Networks underground assets only and may not indicate all assets in the area. It must not be used for the purpose of exact asset location in order to undertake any type of excavation. This plan is diagramatic only, and distances scaled from this plan may not be accurate. Please read all conditions and information on the attached information sheet. This extract is subject to those conditions. The information contained on this plan is only valid for 28 days from the date of issue.

To:	Alyson Bannister
Phone:	Not Supplied
Fax:	Not Supplied
Email:	abannister@geo-logix.com.au

Dial before you dig Job #:	30878181
Sequence #	205121890
Issue Date:	11/11/2021
Location:	287 Mona Vale Road , Terrey Hills , NSW , 2084

Information

The area of interest requested by you contains one or more assets.

nbn™ Assets	Search Results
Communications	Asset identified
Electricity	No assets

In this notice **nbn™ Facilities** means *underground fibre optic, telecommunications and/or power facilities, including but not limited to cables, owned and controlled by **nbn™***

Location of **nbn™** Underground Assets

We thank you for your enquiry. In relation to your enquiry at the above address:

- **nbn's** records indicate that there **ARE** **nbn™** Facilities in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").
- The Indicative Plan/s show general depth and alignment information only and are not an exact, scale or accurate depiction of the location, depth and alignment of **nbn™** Facilities shown on the Plan/s.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- You should note that, at the present time, the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables. As such, consistent with the notes below, particular care must be taken by you to make your own enquiries and investigations to precisely locate any power cables and manage the risk arising from such cables accordingly.
- The information contained in the Indicative Plan/s is valid for 28 days from the date of issue set out above.You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn™**

Facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Dial Before You Dig Service. For any enquiries related to moving assets or Planning and Design activities, please visit the **nbn** Commercial Works website to complete the online application form. If you are planning to excavate and require further information, please email dbyd@nbnco.com.au or call 1800 626 329.

Notes:

1. You are now aware that there are **nbn™** Facilities in the vicinity of the above property that could be damaged as a result activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995* (CoA) which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn's** network facilities.
3. Any information provided is valid only for **28 days** from the date of issue set out above.

Referral Conditions

The following are conditions on which **nbn** provides you with the Indicative Plans. By accepting the plans,you are agreeing to these conditions. These conditions are in addition, and not in replacement of, any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn™** Facilities during any activities you carry out on site).
2. You acknowledge that **nbn** has specifically notified you above that the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables.
3. You should not assume that **nbn™** Facilities follow straight lines or are installed at uniformed depths along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.
4. In carrying out any works in the vicinity of **nbn™** Facilities, you must maintain the following minimum clearances:
    - 300mm when laying assets inline, horizontally or vertically.
    - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates.
    - 1000mm when operating mechanical excavators.
    - Adherence to clearances as directed by other asset owner's instructions and take into account any uncertainty for power cables.
5. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn™** fibre optic,copper and coaxial cables,and power cable feed to **nbn™** assets).Damage to underground electric cables may result in:
    - Injury from electric shock or severe burns, with the possibility of death.
    - Interruption of the electricity supply to wide areas of the city.
    - Damage to your excavating plant.
    - Responsibility for the cost of repairs.
6. You must take all reasonable precautions to avoid damaging **nbn™** Facilities. These precautions may include but not limited to the following:
    - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example: the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
    - If any undisclosed underground cables are located, notify **nbn** immediately.

- All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
- The safety of the public and other workers must be ensured.
- All excavations must be undertaken in accordance with all relevant legislation and regulations.

7. You will be responsible for all damage to **nbn™** Facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include, without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
8. You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.
9. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any plans(including Indicative Plans) attached hereto. Except as expressly provided to the contrary in this information sheet or the attached plans(including Indicative Plans), all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

State/Territory	Documents
National	Work Health and Safety Act 2011
	Work Health and Safety Regulations 2011
	Safe Work Australia - Working in the Vicinity of Overhead and Underground Electric Lines (Draft)
	Occupational Health and Safety Act 1991
NSW	Electricity Supply Act 1995
	Work Cover NSW - Work Near Underground Assets Guide
	Work Cover NSW - Excavation Work: Code of Practice
VIC	Electricity Safety Act 1998
	Electricity Safety (Network Asset) Regulations 1999
QLD	Electrical Safety Act 2002
	Code of Practice for Working Near Exposed Live Parts
SA	Electricity Act 1996
TAS	Tasmanian Electricity Supply Industry Act 1995
WA	Electricity Act 1945
	Electricity Regulations 1947
NT	Electricity Reform Act 2005
	Electricity Reform (Safety and Technical) Regulations 2005
ACT	Electricity Act 1971

Thank You,

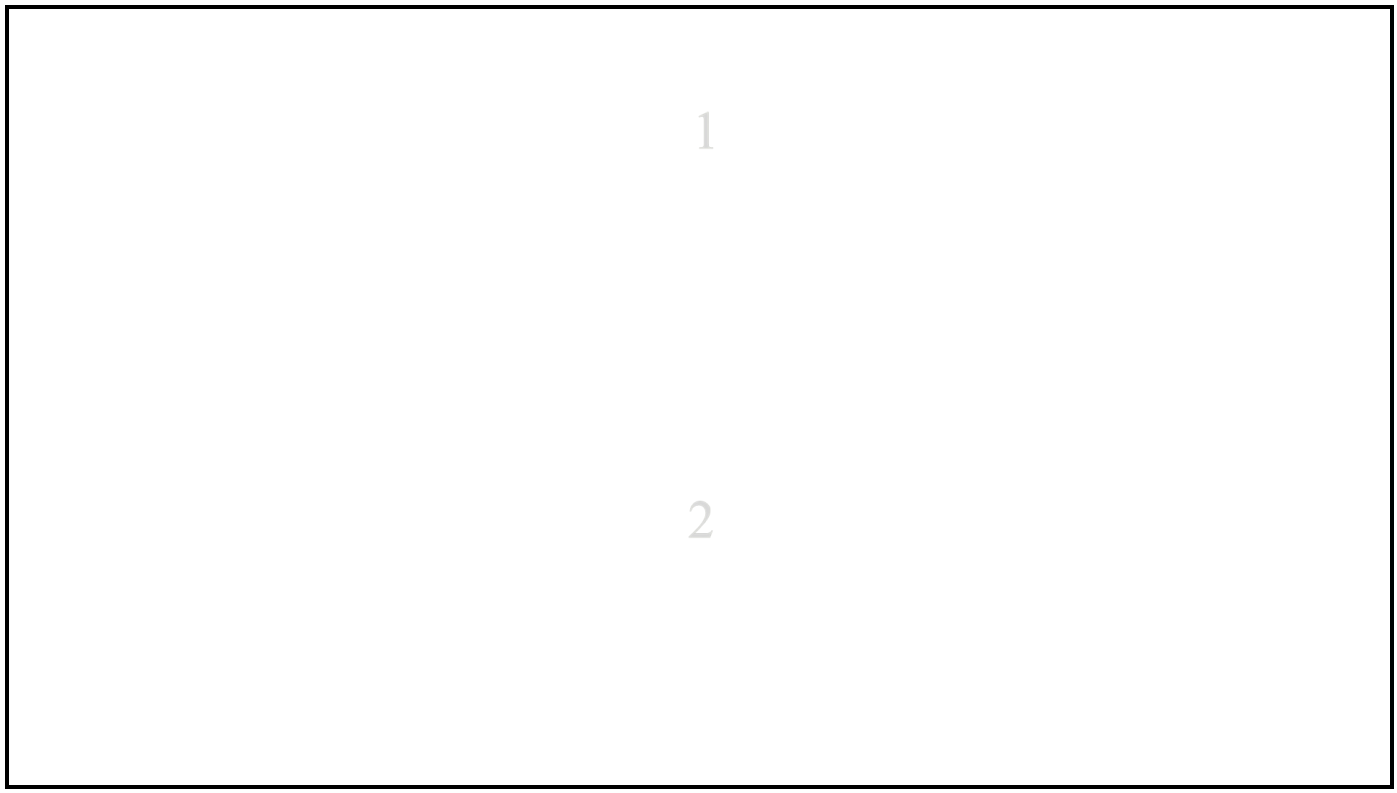
nbn DBYD

Date: 11/11/2021

To:	Alyson Bannister
Phone:	Not Supplied
Fax:	Not Supplied
Email:	abannister@geo-logix.com.au

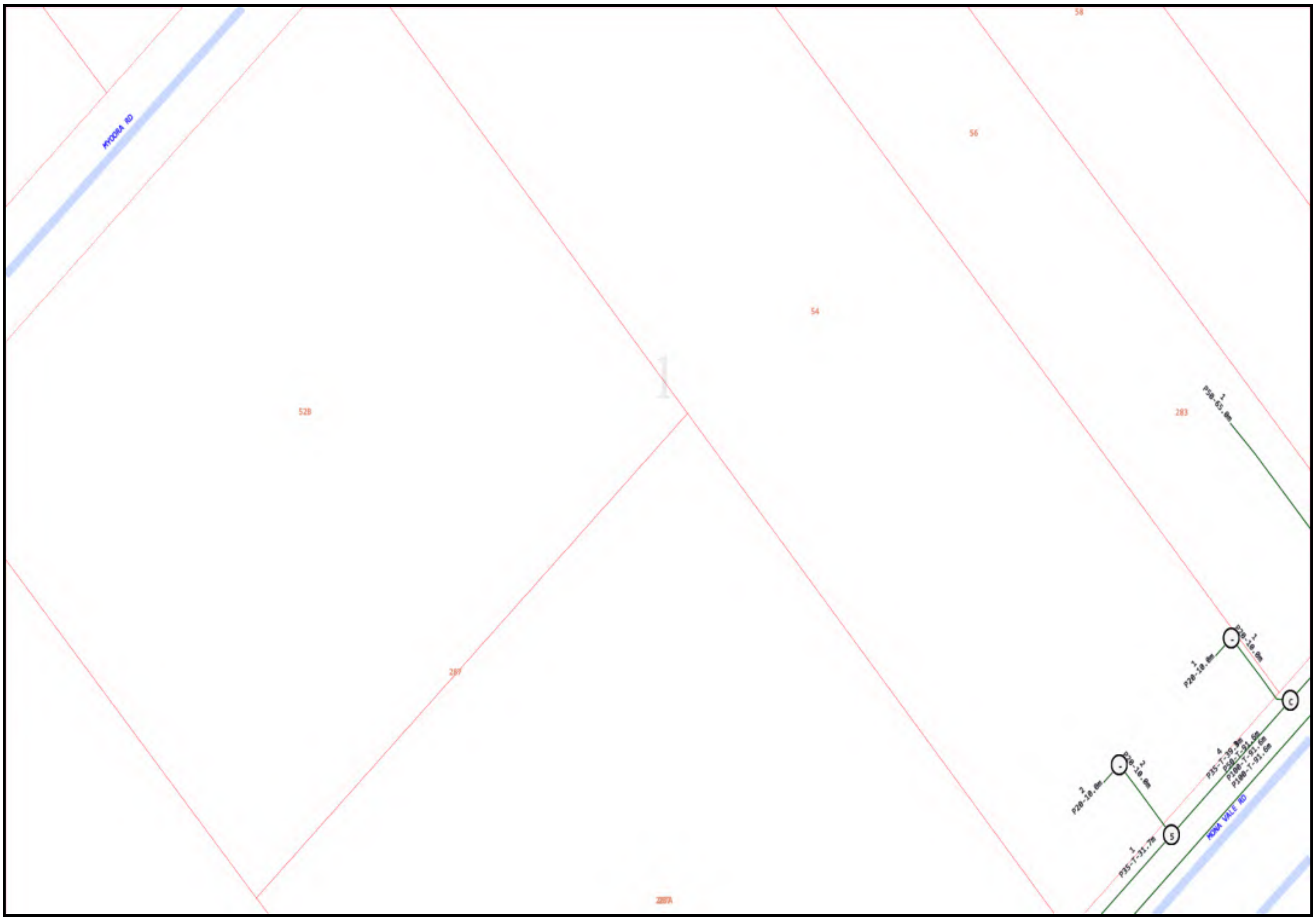
Dial before you dig Job #:	30878181
Sequence #	205121890
Issue Date:	11/11/2021
Location:	287 Mona Vale Road , Terrey Hills , NSW , 2084

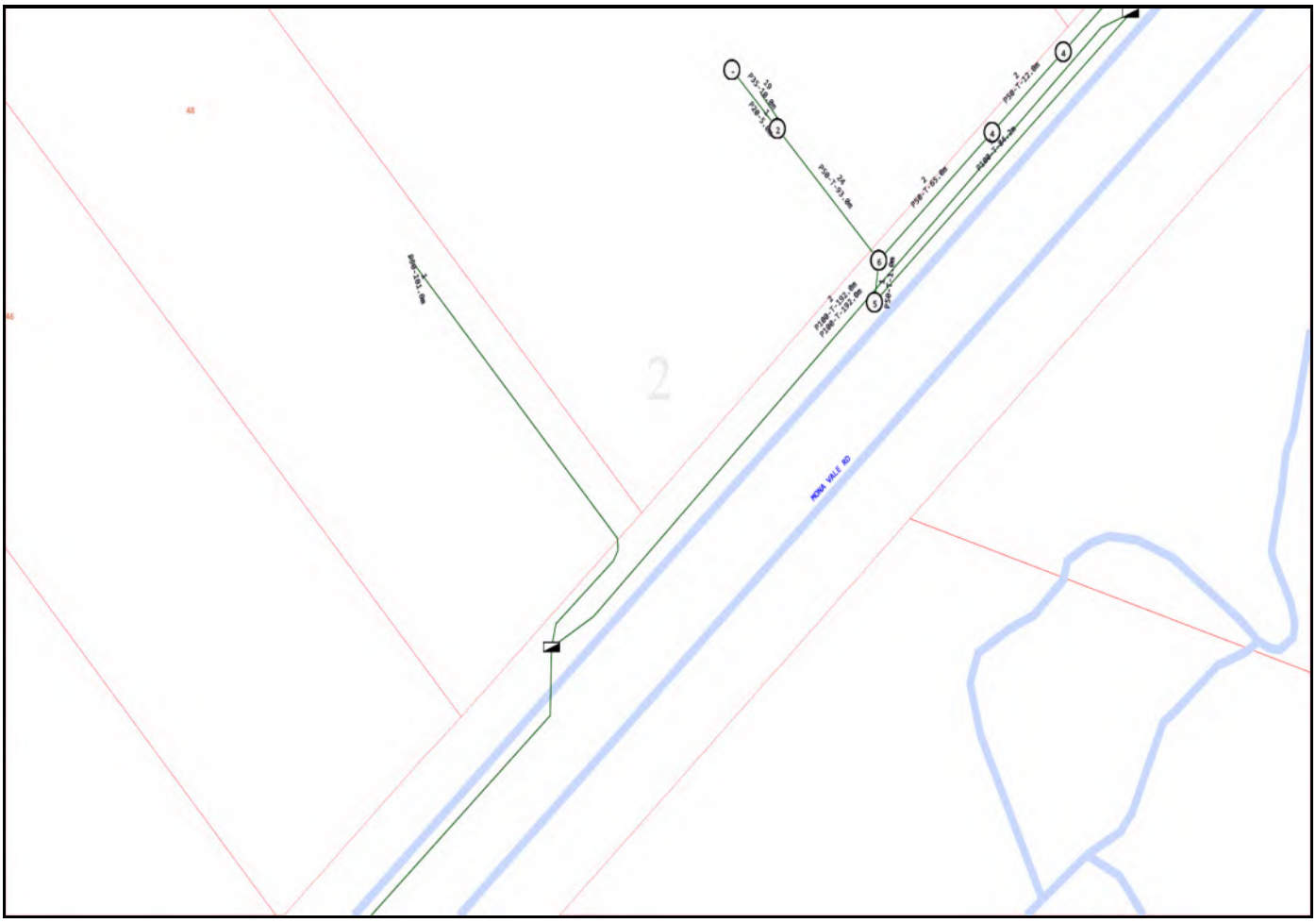
Indicative Plans



LEGEND

34	Parcel and the location
5	Pit with size "5"
2E	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
2 PO – T- 25.0m P40 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m


MYOORA RD
58
56
54
283
287
287A
P20-10.0m
P35-T-31.7m
P35-T-39.9m
P100-T-91.6m
MONA VALE RD



Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

Optus Contract Management Team
Unit 9, 677 Springvale Road
Mulgrave, Victoria, 3178

Date: 11 Nov 2021
To: Alyson Bannister
Company: Geo-Logix
Address: Unit 2309,4 Daydream Street
Warriewood, NSW 2102

ENQUIRY DETAILS
Location: 287 Mona Vale Road, Terrey Hills, NSW 2084
Sequence No.: 205121894
DBYD Reference: 30878181

In relation to your enquiry concerning the above location, Optus advises as follows:

Optus records indicate that there ARE underground Optus FIBRE OPTIC TELECOMMUNICATIONS ASSETS in the vicinity of the above location as per the attached drawing(s).

PLEASE NOTE THAT THE ASSETS IN THIS AREA ARE OF NATIONAL SIGNIFICANCE. Any interference with these assets has the potential to significantly disrupt communications in Australia and may be considered an offence under the Criminal Code Act 1995 (Cth). Optus reserves the right to seek compensation for loss or damage to its assets including consequential loss.

This reply is valid for a period of 30 days from the date above.

IMPORTANT INFORMATION
Asset location drawings provided by Optus are reference diagrams and are provided as a guide only. The completeness of the information in these drawings cannot be guaranteed. Exact ground cover and alignments cannot be provided with any certainty as these may have altered over time. Depths of telecommunications assets vary considerably as do alignments. It is essential to identify the location of any Optus assets in the vicinity prior to engaging in any works.

All Optus assets in the vicinity of any planned works will need to be electronically located to ascertain their general location. Depending on the scope of planned works in the vicinity, the assets may also need to be physically located.

YOU MUST ENGAGE THE SERVICES OF ONE OF THE OPTUS ASSET ACCREDITED LOCATORS TO CARRY OUT ASSET LOCATION (REFER LIST OF ACCREDITED LOCATORS AT THE END OF THIS OPTUS RESPONSE).

Unless otherwise agreed with Optus, where an on-site asset location is required, the requestor is responsible for all costs associated with the locating service including (where required) physically exposing the Optus asset.

DUTY OF CARE
When working in the vicinity of telecommunications assets you have a legal "Duty of Care" and non-interference that must be observed.

It is your responsibility as the requesting party (as a landowner or any other party involved in the planned works) to design for minimal impact to any existing Optus asset. Optus can assist at the design stage through consultation.

It is also your, as the requesting party (or your representative's), responsibility to:

a) Obtain location drawings (through the Dial Before You Dig process) of any existing Optus assets at a reasonable time before any planned works begin;

b) Have an Optus Accredited Asset Locator identify the general location of the Optus asset and physically locate the asset where planned works may encroach on its alignment; and

c) Contact Optus for further advice where requested to do so by this letter.

DAMAGE TO ANY OPTUS ASSET MUST BE REPORTED TO 1800 500 253 IMMEDIATELY

You, your head contractor and any relevant subcontractor are all responsible for any Optus asset damage as a result of planned activities in the vicinity of Optus assets.

This applies where works commence prior to obtaining Optus drawings, where there is failure to follow instructions or during any construction activities.

Optus reserves the right to seek compensation for loss or damage to its assets including consequential loss. Also, you, your head contractor and any relevant subcontractor may also be liable for prosecution under the Criminal Code Act 1995 (Cth).

ASSET RELOCATIONS

You are not permitted by law to relocate, alter or interfere with any Optus asset under any circumstance. Any unauthorised interference with an Optus asset may lead to prosecution under the Criminal Code Act 1995 (Cth). Enquiries relating to the relocation of Optus assets must be referred to the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

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If planned works are parallel to the Optus asset, then the Optus asset must be physically located by an Optus Accredited Locator at a minimum of 5 meter intervals along the length of the parallel works prior to work commencing.

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Note: Where the clearances in the following table cannot be maintained or where the type of work differs from those listed then advice must be sought from the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

Type of Works	**Clearance to Physical Location of Optus Asset**
Jackhammers / Pneumatic Breakers	Not within 1 meter.
Light duty Vibrating Plate or Wacker Packer type compactors (not heavy road construction vibrating rollers etc.)	500mm compact clearance cover before a light duty compactor can be used over any Optus conduit. No compaction permitted over Optus direct buried cable without prior approval from Optus.
Boring Equipment (in-line, horizontal and vertical)	Not within 5 meters parallel of the Optus asset location without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite. Not to cross the Optus asset without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite.

Type of Works	Clearance to Physical Location of Optus Asset
Heavy vehicle Traffic (over 3 tonnes)	Not to be driven across Optus conduits with less than 600mm of cover. Not to be driven across Optus direct buried cable with less than 1.2 meters of cover. Once off crossings permitted, multiple crossing (e.g. road construction or logging) will require Optus approval. Accredited Optus Asset Locator to physically expose the Optus asset to verify actual depth.
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ASSET CLEARANCES AFTER COMPLETION OF WORKS

All Optus pits and manholes must be a minimum of 1 meter from the back of any kerb, 3.5 meters of the road surface without a kerb or not within 15 meters of street intersection.

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In cases where it is considered that the above clearances cannot be maintained at the completion of works, advice must be sought from the relevant Optus Damages and Relocations Team (refer "Further Assistance").

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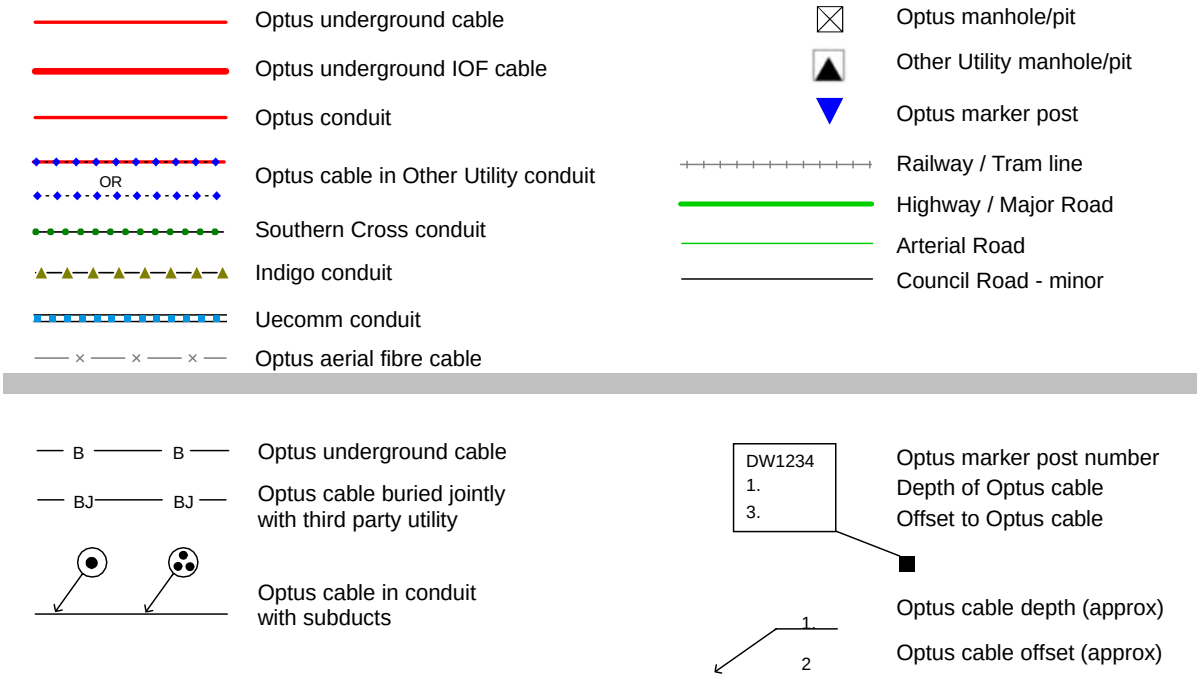
OPTUS ENGINEERING DRAWING SYMBOLS



Sequence Number: 205121894

Date Generated: 11 Nov 2021

For all Optus DBYD plan enquiries –
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208

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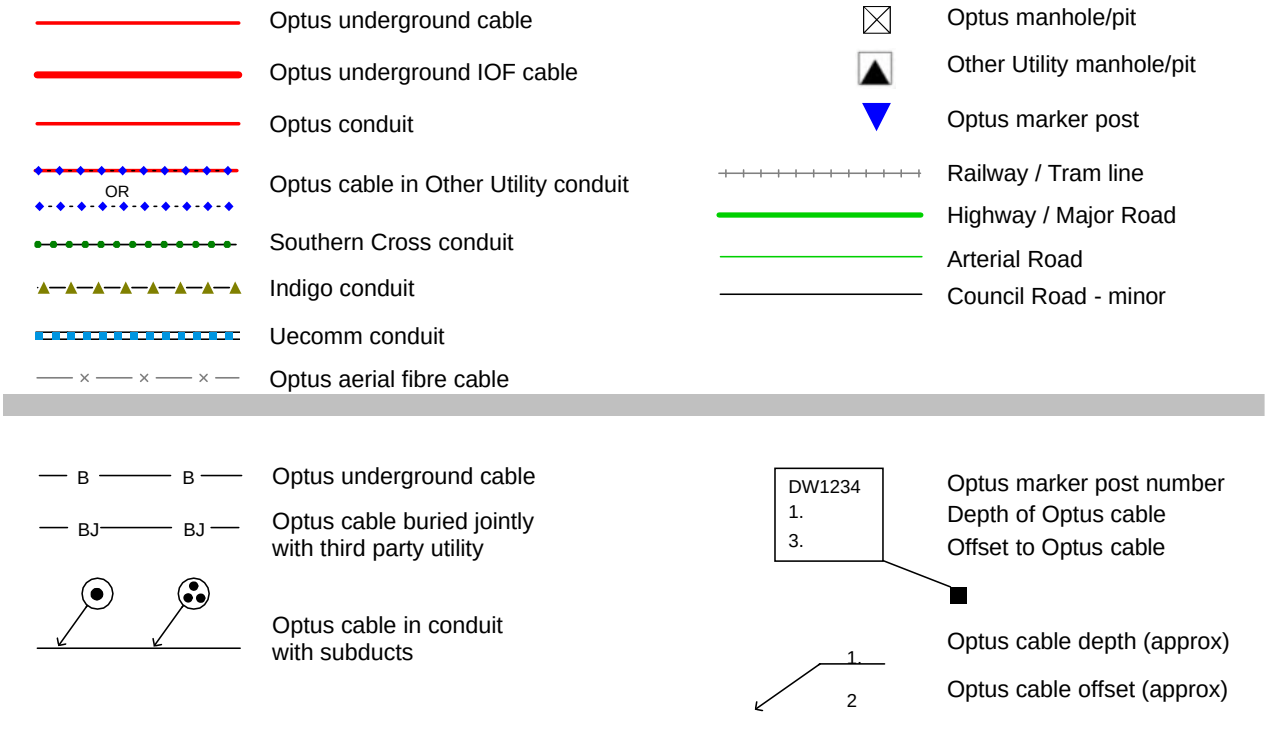

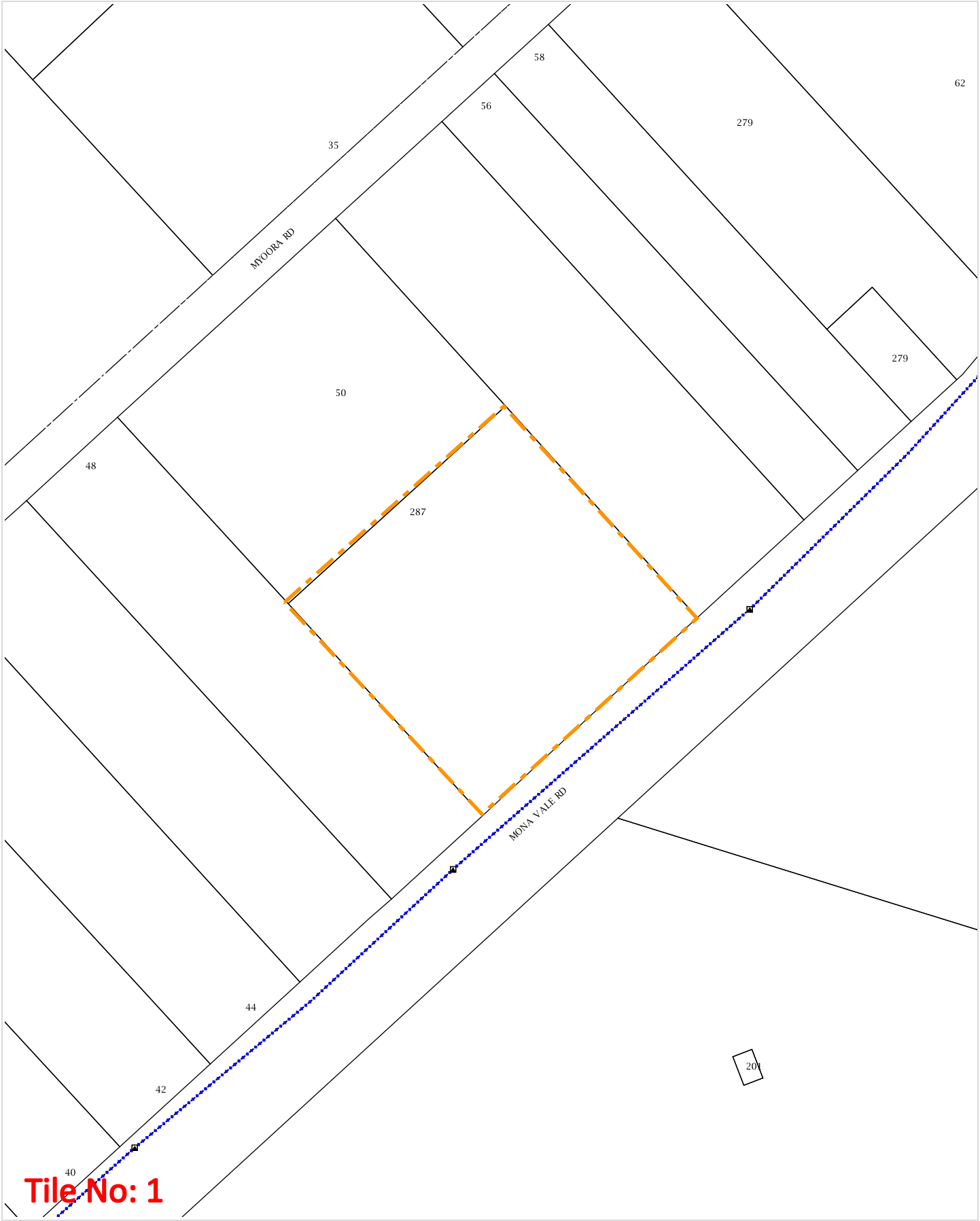

Sequence Number: 205121894

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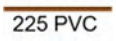
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208

Guide to reading Sydney Water DBYD Plans

This guide will help you understand our plans and what our services are.

Symbol	Meaning	Symbol	Meaning
	Sewer main with flow arrow and size type text.		Sewer vertical
	Disuses sewer main This means the sewer has been disused but remains in the ground.		Sewer pumping station
	Sewer maintenance hole with upstream depth invert.		
	Sewer Sub-surface chamber		Pressure sewer main These are also found in Vacuum sewer areas.
	Sewer Maintenance hole with overflow chamber		Pressure sewer Pump unit Alarm, electrical cable and pump unit.
	Sewer Ventshaft EDUCT		Pressure sewer property valve boundary assembly
	Sewer Ventshaft IDUCT		Pressure sewer stop valve
	Sewer property connection point With chainage to downstream maintenance hole.		Pressure sewer reducer / taper
	Sewer concrete encased section		Pressure sewer flushing point
	Sewer Rehabilitation		Vacuum sewer division valve
	Sewer terminal maintenance shaft		Vacuum sewer vacuum chamber
	Sewer maintenance shaft		Vacuum sewer clean out pot
	Sewer rodding point		Stormwater pipe
	Sewer lamphole		Stormwater channel

Symbol	Meaning	Symbol	Meaning
	Stormwater gully		Potable water stop valves with Tapers
	Stormwater maintenance hole		Potable water closed stop valve
200 PVC	Watermain – potable drinking water With size type text.		
	Disconnected watermain potable drinking water This means the watermain has been disused but remains in the ground.		Potable water air valve
	Recycled watermain		Potable water valve
	Special supply conditions – potable drinking water		Potable water scour
	Special supply conditions – recycled water		Potable water reducer / taper
	Restrained joints – Potable drinking water		Potable water vertical bends
	Sewer concrete encased section		Potable water reservoir
	Restrained joints – Potable drinking water		Recycled water is shown as per potable above. Colour as indicated
	Potable water hydrant		Private potable water main
	Potable water maintenance hole		Private recycled water main
	Potable water stop valve		Private sewer main
	Potable water stop valve with By-pass		

Pipe types

PIPE TYPES		PIPE TYPES	
ABS	Acrylonitrile Butadiene Styrene	AC	Asbestos Cement
BRICK	Brick	CI	Cast Iron
CICL	Cast Iron Cement Lined	CONC	Concrete
COPPER	Copper	DI	Ductile Iron
DICL	Ductile Iron Cement (mortar) Lined	DIPL	Ductile Iron Polymeric Lined
EW	Earthenware	FIBG	Fibreglass
FL BAR	Forged Locking Bar	GI	Galvanised Iron
GRP	Glass Reinforced Plastics	HDPE	High Density Polyethylene
MS	Mild Steel	MSCL	Mild Steel Cement Lined
IPE	Polyethylene	PC	Polymer Concrete
PP	Polypropylene	PVC	Polyvinylchloride
PVC - M	Polyvinylchloride, Modified	PVC - 0	Polyvinylchloride, Oriented
PVC - U	Polyvinylchloride, Unplasticised	RC	Reinforced Concrete
RC-PL	Reinforced Concrete Plastics Lined	S	Steel
SCL	Steel Cement (mortar) Lined	SCL IBL	Steel Cement Lined Internal Bitumen
SGW	Salt Glazed Ware	SPL	Steel Polymeric Lined
SS	Stainless Steel	STONE	Stone
VC	Vitrified Clay	WI	Wrought Iron
WS	Woodstave		

DIAL BEFORE YOU DIG www.1100.com.au

Further Information

Please consult the Dial Before You Dig enquiries page on our website.

For general enquiries please call the Customer Contact Centre on 132 092

In an emergency, or to notify Sydney Water of damage or threats to its structures, call 13 20 90 (24 hours, 7 days)

A3

MONA VALE

DBYD Address:
287 Mona Vale Road
Terrey Hills NSW 2084

DBYD Job No: 30878181

DBYD Sequence No: 205121895

Scale: 1:1500

Date of Production: 11/11/2021

Plan 1 of 1

N

0m 9m 18m 27m 36m

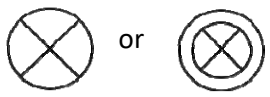
LEGEND

IT'S HOW WE CONNECT

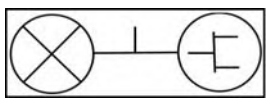
For more info contact a Certified Locating Organisation or Telstra Plan Services 1800 653 935

Exchange
(Major Cable Present)

Footway Access Chamber
(can vary from 1-lid to 12-lid)



Pillar / Cabinet
(above ground / free standing)



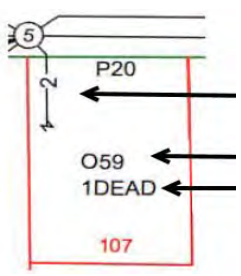
Above ground complex equipment housing (eg RIM)
Please Note: This equipment is powered by 240V Electricity

OC — Other Carrier Telecommunications Cable/Asset

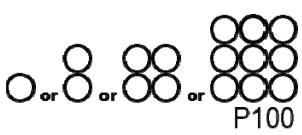
Dist — Distribution cables in Main Cable ducts

MC — Main Cable ducts on a Distribution plan

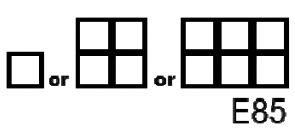
▲ — Blocked or damaged duct.



2 pair lead-in to property from pit in street 1
pair working (pair ID 059)
1 pair dead (i.e. spare, not connected)



Single to multiple round conduit
Configurations 1,2,4,9 respectively
(attached text denotes conduit type and size)



Multiple square conduit
Configurations 2, 4, 6 respectively
(attached text denotes conduit type and size)

Cable Jointing Pit
(number indicating Pit Type)

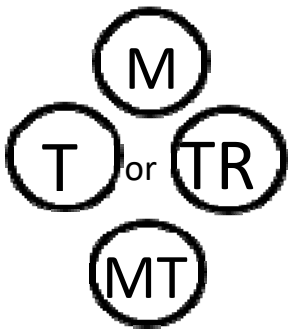
Elevated Joint
(above ground joint on buried cable)

Telstra Plant in shared Utility trench

Aerial Cable

Aerial Cable
(attached to joint Use Pole eg. Power)

Direct Buried Cable



Marker Post Installed

Buried Transponder

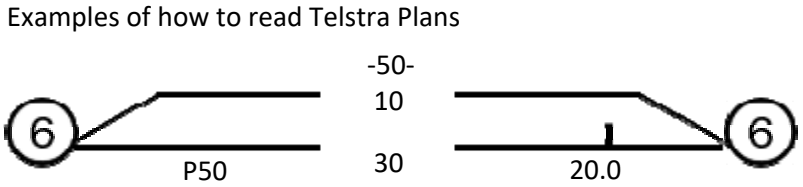
Marker Post, Transponder

Optical Fibre cable direct buried

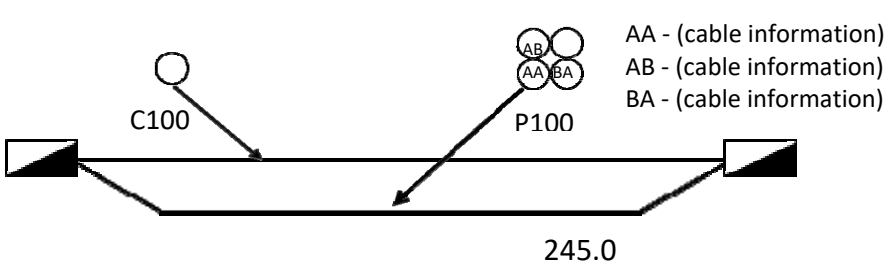
Some examples of conduit type and size:

A - Asbestos cement, P - PVC / Plastic, C - Concrete,
GI - Galanised iron, E - Earthenware
Conduit sizes *nominally* range from 20mm to 100mm
P50 50mm PVC conduit
P100 100mm PVC conduit
A100 100mm asbestos cement conduit

Some Examples of how to read Telstra Plans



One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6-pits. approximately 20.0m apart, with a direct buried 30-pair cable along the same route

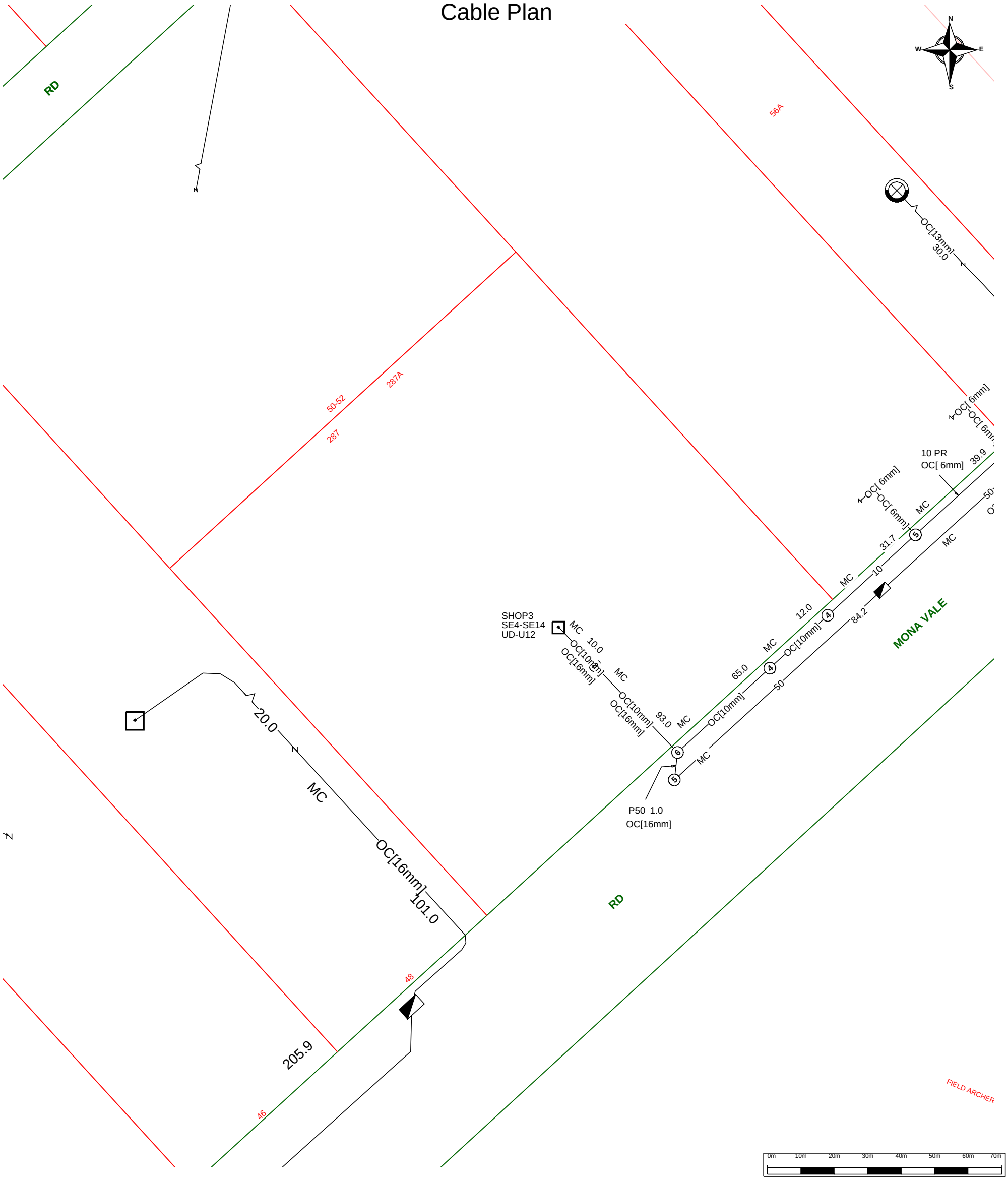


Two separate conduit runs between two footway access chambers (manholes) approximately 245m apart A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100) along

WARNING: Telstra plans and location information conform to Quality Level 'D' of the Australian Standard AS 5488 - Classification of Subsurface Utility Information. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. FURTHER ON SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK. A plant location service is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works. The exact position of Telstra assets can only be validated by physically exposing it. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

TELSTRA CORPORATION ACN 051 775 556

Cable Plan



For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)	Sequence Number: 205121891
TELSTRA CORPORATION LIMITED A.C.N. 051 775 556	CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.
Generated On 11/11/2021 11:02:25	

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

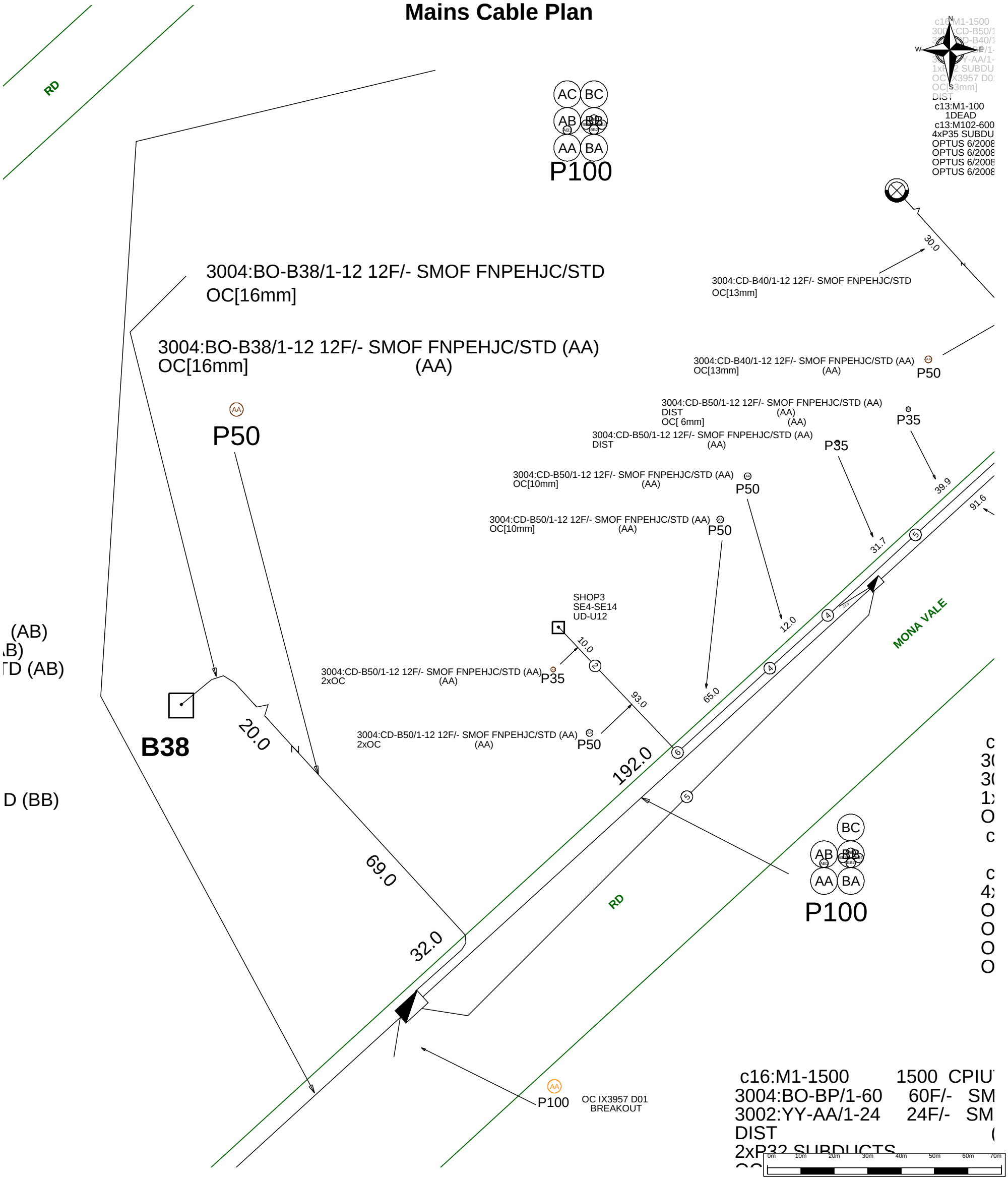
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.

Mains Cable Plan



For all Telstra DBYD plan enquiries -
email - Telstra.Plans@team.telstra.com
For urgent onsite contact only - ph 1800 653 935 (bus hrs)

TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 11/11/2021 11:02:27

Sequence Number: 205121891

CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.

ATTACHMENT C

BOREHOLE LOG: HA1

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	**07/09/2022**
Date Completed:	**07/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA		0.10	D	Z	HA1/0.0-0.2	Fill	F		**FILL**- reddish brown / moderate brown (5YR 4/4), 40% clay, 60% sand, moderately compacted.	moist	
				Z			F		**FILL**- yellowish brown / moderate yellowish brown (10YR 5/4), 20% clay, 80% sand, moderately compacted.	moist	
		0.35									
		0.5	D	Z	HA1/0.4-0.5		F		**FILL**- brownish yellow / dark yellowish orange (10YR 6/6), 20% clay, 80% sand, moderately compacted, virgin excavated natural material.	moist	
		0.80	D	Z	HA1/0.7-0.8		F		**FILL**- brownish yellow / dark yellowish orange (10YR 6/6) and light red (5R 6/6), 20% clay, 40% sand, 40% gravel, moderately compacted, sandstone fragments.	wet	
		1.00	D	Z	HA1/1.0-1.1	Natural	SC		**Clayey SAND**- light grey (N7), 20% clay, 80% sand, medium dense.	moist	
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby / Thara Polassery** Date: **07/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: HA2

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**0.90 m**
Date Started:	**07/09/2022**
Date Completed:	**07/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA		0.20		Z		Fill	F		**FILL**- reddish brown / moderate brown (5YR 4/4), 20% clay, 60% sand, 20% gravel, moderately compacted.	damp	
		0.40	D	Z	HA2/0.2-0.3		F		**FILL**- pinkish white / greyish orange pink (10R 8/2), 20% clay, 80% sand, moderately compacted.	damp	
		0.5		Z			F		**FILL**- light reddish brown / light brown (5YR 6/4), 10% clay, 60% sand, 80% gravel, moderately compacted.	damp	
		0.70	D	Z	HA2/0.7-0.8				20% sand, 80% gravel, ironstone layers.		
		1.0							**Terminated at 0.900 m** Refusal in ironstone.		
		1.5									
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby / Thara Polassery** Date: **07/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: HA3

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**0.80 m**
Date Started:	**07/09/2022**
Date Completed:	**07/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA	▽	0.25	D	Z	HA3/0.0-0.25	Fill	F		**FILL**- medium grey (N5), 20% clay, 80% sand, moderately compacted.	damp	
		0.30					F		**FILL**- yellowish red / light brown (5YR 5/6), 80% clay, 10% sand, 10% gravel, moderately compacted.	damp	
		0.5	D	Z	HA3/0.25-0.45		F		**FILL**- medium dark grey (N4), 10% clay, 90% sand, moderately compacted.	moist	
	▽	0.60							reddish brown / moderate brown (5YR 4/4), 30% sand, 70% gravel, dense, gravel layers.	wet	
			D	Z	HA3/0.7-0.8						
		1.0							**Terminated at 0.800 m** Refusal.		
		1.5									
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
▽ Encountered Groundwater
▼ Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date: **07/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: HA4

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.40 m**
Date Started:	**07/09/2022**
Date Completed:	**07/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA		0.5	D	Z	HA4/0.1-0.4 DS1, TS1	Fill	F		**FILL**- medium light grey (N6), 25% clay, 75% sand, moderately compacted.	damp	
		0.70					F		**FILL**- light grey (N7), 30% clay, 70% sand, poorly compacted.	moist	
		1.0									
		1.10									
		1.20	D	Z	HA4/1.1-1.2		F		**FILL**- light grey (N7) and light red / moderate reddish orange (10R 6/6), 20% clay, 70% sand, 10% gravel, moderately compacted.	moist	Crushed bricks.
			D	Z	HA4/1.2-1.3		F		**FILL**- brownish black (5YR 2/1), 20% clay, 50% sand, 30% gravel, moderately compacted.	damp	Coal ash material.
		1.5							**Terminated at 1.400 m** Refusal in gravel.		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date: **07/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: HA5

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.40 m**
Date Started:	**07/09/2022**
Date Completed:	**07/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA		0.5	D	Z	HA5/0.2-0.3	Fill	F		**FILL**- medium dark grey (N4), 30% clay, 70% sand, moderately compacted.	damp	
		0.60									
		1.00	D	Z	HA5/0.7-0.8		F		**FILL**- light grey (N7), 20% clay, 60% sand, 20% gravel, moderately compacted, sandstone fragments.	damp	Crushed brick.
			D	Z	HA5/1.2-1.4	Natural	SC		**Clayey SAND**- dark grey / brownish grey (5YR 4/1), 20% clay, 80% sand, medium dense.	moist	
		1.5							**Terminated at 1.400 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date: **07/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: HA6

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.40 m**
Date Started:	**07/09/2022**
Date Completed:	**07/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA		0.50		Z		Fill	F		**FILL**- light grey (N7), 30% clay, 70% sand, poorly compacted.	damp	
		1.00	D	Z	HA6/0.5-0.6	Fill	F		**FILL**- medium dark grey (N4), 30% clay, 60% sand, 10% gravel, moderately compacted.	damp	
			D	Z	HA6/1.0-1.2	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 20% clay, 80% sand, medium dense.	damp	
		1.5							**Terminated at 1.400 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date: **07/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH7

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**3.00 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Observations / Comments
		0.03		Z		Fill	F		**BITUMEN**.	
		0.20		Z			F		**FILL**- dark reddish brown / greyish brown (5YR 3/2), 10% clay, 30% sand, 60% gravel, well compacted.	
		0.40		Z			F		**FILL**- dusky brown (5YR 2/2), 10% clay, 40% sand, 50% gravel, well compacted.	
		0.5	D	Z	BH7/0.4-0.5		F		**FILL**- red / moderate reddish brown (10R 4/6), 60% sand, 40% gravel, moderately compacted.	
		0.65		Z			F		**FILL**- medium grey (N5), 20% sand, 80% gravel, moderately compacted.	
		0.80	D	Z	BH7/0.8-0.9		F		**FILL**- yellowish brown / moderate yellowish brown (10YR 5/4), 10% clay, 60% sand, 30% gravel, moderately compacted.	
		1.0								
		1.50	D	Z	BH7/1.8-1.2	Natural	SC		**Clayey SAND**- medium light grey (N6), 30% clay, 70% sand, medium dense.	
		2.0								
		2.5	D	Z	BH7/2.5-2.6					
		3.0							**Terminated at 3.000 m**	
		3.5								

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH8

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Observations / Comments
		0.03		Z		Fill	F		**BITUMEN**.	
		0.20							**FILL**- medium dark grey (N4), 10% clay, 30% sand, 60% gravel, well compacted.	
			D	Z	BH8/0.3-0.5		F		**FILL**- very pale brown / greyish orange (10YR 7/4), 10% clay, 60% sand, 30% gravel, well compacted.	
		0.50				Natural	SC		**Clayey SAND**- yellow / pale yellowish orange (10YR 8/6) and red / moderate reddish brown (10R 4/6), 30% clay, 60% sand, 10% gravel, medium dense, ironstone gravel.	
		1.0	D	Z	BH8/1.0-1.2					
		1.5							**Terminated at 1.200 m**	
		2.0								
		2.5								

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH9

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.30							**CONCRETE**.		
		0.5	D	Z	BH9/0.3-0.6	Fill	F		**FILL**- light brownish grey / pale yellowish brown (10YR 6/2), 10% clay, 50% sand, 40% gravel, well compacted.		
		0.60									
		1.0	D	Z	BH9/0.8-1.0	Natural	CL		**CLAY with Sand**- very pale brown / greyish orange (10YR 7/4), 70% clay, 30% sand, medium plasticity, stiff.	damp	
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH10

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**2.40 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.03		Z		Fill	F		**CONCRETE**.	damp	
		0.10							**FILL**- medium grey (N5), 10% clay, 30% sand, 60% gravel, well compacted.	damp	
		0.5	D	Z	BH10/0.3-0.6		F		**FILL**- reddish brown / moderate brown (5YR 4/4), 10% clay, 60% sand, 30% gravel, well compacted.		
		0.75									
		1.0	D	Z	BH10/0.9-1.0		F		**FILL**- yellow / pale yellowish orange (10YR 8/6), 10% clay, 80% sand, 10% gravel, moderately compacted.	damp	
		1.20									
		1.50	D	Z	BH10/1.3-1.5		F		**FILL**- medium light grey (N6), 20% clay, 80% sand, moderately compacted.	damp	
		2.0	D	Z	BH10/2.0-2.2	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 10% clay, 90% sand, medium dense.	damp	
		2.5							**Terminated at 2.400 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH11

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**2.40 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.15							**CONCRETE**.		
		0.5	D	Z	BH11/0.3-0.6	Fill	F		**FILL**- dark greyish brown / dark yellowish brown (10YR 4/2) and red / moderate reddish brown (10R 4/6), 10% clay, 50% sand, 40% gravel, well compacted.	damp	
		0.70					F		**FILL**- medium grey (N5), 10% clay, 50% sand, 40% gravel, moderately compacted, ironstone gravel.	damp	
		1.0									
		1.10	D	Z	BH11/1.0-1.2	Natural			**IRONSTONE**- red / moderate reddish brown (10R 4/6).		
		1.50	D	Z	BH11/1.4-1.5		SC		**Clayey SAND**- light red / moderate reddish orange (10R 6/6), 20% clay, 80% sand.		
		1.80							**IRONSTONE**- red / moderate reddish brown (10R 4/6).		
		2.0									
		2.5							**Terminated at 2.400 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH12

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.15							**CONCRETE**.		
			D	Z	BH12/0.2-0.4	Fill	F		**FILL**- light reddish brown / light brown (5YR 6/4), 10% clay, 50% sand, 40% gravel, well compacted.	damp	
		0.50		Z		Fill	F		**FILL**- 70% sand, 30% gravel, well compacted, ironstone gravel.	damp	
		0.80				Natural	SC		**Clayey SAND**- 20% clay, 80% sand, medium dense.	damp	
		1.0	D	Z	BH12/1.0-1.2						
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH13

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.15							**CONCRETE**.		
		0.30		Z		Fill	F		**FILL**- reddish brown / moderate brown (5YR 4/4), 10% clay, 30% sand, 60% gravel, well compacted.	damp	
		0.5	D	Z	BH13/0.3-0.5	Fill	F		**FILL**- red / moderate reddish brown (10R 4/6), 20% clay, 50% sand, 30% gravel, well compacted.	damp	
		0.55				Natural	SC		**Clayey SAND**- very pale brown / greyish orange (10YR 7/4), 20% clay, 80% sand, medium dense.	damp	
		1.0	D	Z	BH13/1.0-1.2						
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH14

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.20							**CONCRETE**.		
SFA		0.5	D	Z	BH14/0.3-0.7	Fill	F		FILL- yellowish brown (10YR 5/6), 10% clay, 50% sand, 40% gravel, well compacted.	damp	
		0.70									
		1.0	D	Z	BH14/1.0-1.2	Natural	SC		**Clayey SAND**- very pale brown / greyish orange (10YR 7/4), 20% clay, 80% sand, medium dense.	damp	
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH15

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**2.40 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.5	D	Z	BH15/0.3-0.6 DS2, TS2	Fill	F		**FILL**- yellowish brown / moderate yellowish brown (10YR 5/4), 15% clay, 70% sand, 15% gravel, moderately compacted.	damp	
		0.80									
		1.00	D	Z	BH15/0.9-1.0	Natural	SC		**Clayey SAND**- light red / moderate reddish orange (10R 6/6), 20% clay, 80% sand, medium dense.	damp	
				Z					**IRONSTONE**- red / moderate reddish brown (10R 4/6).		
		1.40									
		1.5	D	Z	BH15/1.4-1.5		SC		**Clayey SAND**- very pale brown / very pale orange (10YR 8/2), 20% clay, 80% sand, medium dense.	damp	
		2.0									
		2.5							**Terminated at 2.400 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH16

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.90 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.15							**CONCRETE**.		
		0.30		Z		Fill	F		**FILL**- dark reddish brown / moderate brown (5YR 3/4), 30% sand, 70% gravel, well compacted.	damp	
		0.5	D	Z	BH16/0.3-0.5		F		**FILL**- pinkish white / greyish orange pink (10R 8/2), 90% clay, 10% sand, moderately compacted.	damp	
		0.55	D	Z	BH16/0.55-0.7		F		**FILL**- dark grey (N3), 40% sand, 60% gravel, moderately compacted.	damp	With tar.
		0.75									
		1.0	D	Z	BH16/1.0-1.2	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 20% clay, 80% sand, medium dense.	damp	
		1.20		Z			SC		**Clayey SAND**- very pale brown / very pale orange (10YR 8/2) and yellow / pale yellowish orange (10YR 8/6), 10% clay, 90% sand, medium dense.	damp	
		1.5									
		1.70		Z					**IRONSTONE**.		
		2.0							**Terminated at 1.900 m** Refusal.		
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH17

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**2.40 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.5	D	Z	BH17/0.6-0.8	Fill	F		**FILL**- light red / moderate reddish orange (10R 6/6), 60% clay, 30% sand, 10% gravel, moderately compacted.	damp	
		0.80									
		1.0	D	Z	BH17/1.0-1.2	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 20% clay, 80% sand, medium dense.	damp	
		1.20									
		1.5		Z			SC		**Clayey SAND**- pinkish white / greyish orange pink (10R 8/2), 20% clay, 80% sand, medium dense, with ironstone fragments.	damp	
		2.0									
		2.5							**Terminated at 2.400 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH18

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
SFA		0.20		Z		Fill	F		**FILL**- medium grey (N5), 15% clay, 80% sand, 5% gravel, moderately compacted.	damp	
			D	Z	BH18/0.2-0.4		F		**FILL**- pinkish white / greyish orange pink (10R 8/2), 80% clay, 20% sand, poorly compacted.	damp	
		0.5									
		0.70				Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 20% clay, 80% sand, medium dense.	damp	
		1.0	D	Z	BH18/1.0-1.2						
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH19

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.03	D	Z	BH19/0.1-0.3	Fill	F		**ASPHALT**. FILL- medium grey (N5), 30% sand, 70% gravel, well compacted.	dry	
		0.40									
		0.5	D	Z	BH19/0.7-1.0	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 20% clay, 80% sand, dense.	damp	
		1.0									
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH20

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**2.40 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.20		Z		Fill	F		**FILL**- light reddish brown / light brown (5YR 6/4), 50% clay, 40% sand, 10% gravel, moderately compacted.	damp	
		0.50	D	Z	BH20/0.2-0.4	Fill	F		**FILL**- very pale brown / greyish orange (10YR 7/4), 25% clay, 70% sand, 5% gravel, moderately compacted.	damp	
		0.75	D	Z	BH20/0.6-0.7	Fill	F		**FILL**- reddish brown / moderate brown (5YR 4/4), 20% clay, 50% sand, 30% gravel, moderately compacted.	damp	
		1.0	D	Z	BH20/1.0-1.2	Natural	SC		**Clayey SAND**- medium light grey (N6), 20% clay, 80% sand, medium dense.	damp	
		1.30				Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6) and red / moderate reddish brown (10R 4/6), 25% clay, 75% sand, medium dense, with ironstone fragments.	damp	
		1.5									
		2.0		Z			SC				
		2.5							**Terminated at 2.400 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH21

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**3.60 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
CC		0.20							**CONCRETE**.		
		0.5	D	Z	BH21/0.3-0.5	Fill	F		**FILL**- dark reddish brown / greyish brown (5YR 3/2), 10% clay, 50% sand, 40% gravel, well compacted.	damp	
		0.60									
		1.0					SC		**Clayey SAND**- medium dark grey (N4), 20% clay, 80% sand, medium dense.	moist	
	▽	1.20	D	Z	BH21/1.0-1.2						
		1.5				Natural			**Clayey SAND**- medium grey (N5) and dark reddish brown / greyish brown (5YR 3/2), 20% clay, 80% sand, medium dense.	wet	
		2.0	D	Z	BH21/1.8-2.0						
		2.5					SC				
		3.0									
			D	Z	BH21/3.0-3.2						
		3.5							**Terminated at 3.600 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
▽ Encountered Groundwater
▼ Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH22

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.03		Z		Fill	F		**BITUMEN**. **FILL**- dark reddish brown / greyish brown (5YR 3/2), 60% silt, 40% gravel, well compacted.	damp	
		0.40	D	Z	BH22/0.3-0.6	Fill	F		**FILL**- very pale brown / greyish orange (10YR 7/4), 30% clay, 70% sand, well compacted.	damp	
		0.80	D	Z	BH22/0.8-1.0	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 40% clay, 60% sand, medium dense.	damp	
		1.20							**Terminated at 1.200 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH23

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**2.40 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.50	D	Z	BH23/0.1-0.4	Fill	F		**FILL**- light red / moderate reddish orange (10R 6/6), 65% clay, 25% sand, 10% gravel, poorly to moderately compacted.	moist	
		1.00		Z			F		**FILL**- medium grey (N5), 20% clay, 80% sand, poorly to moderately compacted.	moist	
		1.30	D	Z	BH23/1.0-1.2		F		**FILL**- medium grey (N5), 20% clay, 50% sand, 30% gravel, moderately compacted.	moist	
		1.5				Natural	SC		**Clayey SAND**- medium light grey (N6), 20% clay, 70% sand, 10% gravel, medium dense.	wet	
		2.0	D	Z	BH23/1.8-2.0						
		2.5							**Terminated at 2.400 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH24

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.5	D	Z	BH24/0.3-0.6	Fill	F		**FILL**- medium grey (N5), 25% clay, 60% sand, 15% gravel, moderately compacted.	damp	
		0.60									
				Z			F		**FILL**- dark reddish brown / greyish brown (5YR 3/2), 20% clay, 70% sand, 10% gravel, moderately compacted.	moist	
		0.80									
		1.0				Natural	SC		**Clayey SAND**- medium light grey (N6), 20% clay, 80% sand, medium dense.	moist	
		1.10	D	Z	BH24/1.0-1.2		SC		**Clayey SAND**- yellow / pale yellowish orange (10YR 8/6) and red / moderate reddish brown (10R 4/6), 20% clay, 80% sand, medium dense, with ironstone fragments.	moist	
									Terminated at 1.200 m		
		1.5									
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH25

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**2.40 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.20		Z		Fill	F		**FILL**- yellowish red / light brown (5YR 5/6), 25% clay, 65% sand, 10% gravel, moderately compacted.	damp	
		0.5	D	Z	BH25/0.5-0.8		F		**FILL**- medium grey (N5), 40% clay, 55% sand, 5% gravel, moderately compacted.	damp	
		0.80					F		**FILL**- medium grey (N5), 30% clay, 60% sand, 10% gravel, moderately compacted.	damp	
		1.0	D	Z	BH25/1.2-1.4						
		1.40									
		1.5	D	Z	BH25/1.4-1.6	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6), 20% clay, 80% sand, medium dense.	damp	
		2.0									
		2.5							**Terminated at 2.400 m**		

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH26

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.03							**BITUMEN**.		
		0.20		Z			F		**FILL**- medium grey (N5), 20% sand, 80% gravel, well compacted, ironstone & sandstone gravel.	dry	
		0.5	D	Z	BH26/0.4-0.6	Fill	F		**FILL**- dark reddish brown / greyish brown (5YR 3/2) and medium grey (N5), 10% clay, 60% sand, 30% gravel, moderately compacted.	damp	
		0.70		Z			F		**FILL**- dark grey / brownish grey (5YR 4/1), 20% clay, 80% sand, moderately compacted.	damp	
		0.90									
		1.0	D	Z	BH26/1.0-1.2	Natural	SC		**Clayey SAND**- reddish yellow (5YR 6/6), 20% clay, 80% sand, medium dense.	damp	
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH27

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.03		Z		Fill	F		**BITUMEN**.		
		0.20							**FILL**- medium light grey (N6), 20% sand, 80% gravel, well compacted.	damp	
			D	Z	BH27/0.2-0.5		F		**FILL**- dark reddish brown / greyish brown (5YR 3/2), 10% clay, 70% sand, 20% gravel, moderately compacted.	damp	
		0.5									
		0.60				Natural	SC		**Clayey SAND**- reddish yellow (5YR 6/6), 20% clay, 80% sand, medium dense.	moist	
		1.0	D	Z	BH27/0.8-1.0						
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH28

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.20 m**
Date Started:	
Date Completed:	

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method:

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
		0.20		Z		Fill	F		**FILL**- medium light grey (N6), 20% clay, 60% sand, 20% gravel, moderately compacted.	damp	
		0.5	D	Z	BH28/0.3-0.6	Fill	F		**FILL**- brownish yellow / dark yellowish orange (10YR 6/6) and medium light grey (N6), 30% clay, 70% sand, moderately compacted, with ironstone & crushed sandstone.	damp	
		0.60									
		1.0	D	Z	BH28/0.8-1.0	Natural	SC		**Clayey SAND**- brownish yellow / dark yellowish orange (10YR 6/6) and red / moderate reddish brown (10R 4/6), 20% clay, 80% sand, medium dense.	damp	
		1.5							**Terminated at 1.200 m**		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date:
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH29

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**0.95 m**
Date Started:	**13/09/2022**
Date Completed:	**13/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA		0.05	D	Z	BH29/0.00-0.1	Fill	F		**FILL**- very pale brown / greyish orange (10YR 7/4), 10% clay, 40% sand, 60% gravel, well compacted.	dry	
		0.10					F			damp	
				Z			F		**FILL**- dark grey (N3), 20% clay, 60% sand, 20% gravel, moderately compacted.	damp	
		0.30							**FILL**- dark reddish brown / greyish brown (5YR 3/2), 40% clay, 60% sand, moderately compacted.	moist	
			D	Z	BH29/0.3-0.4		F		**FILL**- yellowish red / light brown (5YR 5/6), 30% clay, 70% sand, moderately compacted.		
		0.5									
		0.65									
		0.70		Z			F		**FILL**- medium grey (N5), 80% sand, 20% gravel, moderately compacted.	damp	
										damp	
			D	Z	BH29/0.8-0.9		F		**FILL**- medium dark grey (N4), 40% clay, 60% sand, moderately compacted.		
		1.0							**Terminated at 0.950 m** Refusal.		
		1.5									
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date: **13/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

BOREHOLE LOG: BH30

Geo-Logix Pty Ltd
Building Q2, Level 3
Unit 2309 / 4 Daydream Street
Warriewood NSW 2102
www.geo-logix.com.au

Project Number:	**2201064**
Hole Depth:	**1.50 m**
Date Started:	**13/09/2022**
Date Completed:	**13/09/2022**

Project Name: **Detailed Site Investigation**
Location / Site: **287 Mona Vale Road, Terrey Hills NSW**
Client: **Hills Marketplace Pty Ltd**
Contractor: **Terratest Pty Ltd**
Method: **Hand Auger**

Method	Water Level	Depth (mBGL)	Sample Type	HC Odour	Sample ID	Material Type	USCS Symbol	Graphic Log	Material Description	Moisture	Observations / Comments
HA		0.20	D	Z	BH30/0.0-0.2	Fill	F		**FILL**- reddish brown / moderate brown (5YR 4/4), 20% clay, 70% sand, 10% gravel, moderately compacted.	damp	
		0.40		Z			F		**FILL**- very pale brown / greyish orange (10YR 7/4), 40% clay, 50% sand, 10% gravel, moderately compacted.	moist	
		0.5					F		**FILL**- brownish yellow / dark yellowish orange (10YR 6/6), 35% clay, 60% sand, 5% gravel, moderately compacted.	moist	
		0.70	D	Z	BH30/0.5-0.7						
		0.80		Z			F		**FILL**- medium light grey (N6), 90% clay, 10% sand, poorly compacted.	moist	
		0.90		Z			F		**FILL**- 20% clay, 80% sand, moderately compacted.	damp	
		1.00		Z			F		**FILL**- dark reddish brown / moderate brown (5YR 3/4), 20% clay, 70% sand, 10% gravel, moderately compacted.	damp	
			D	Z	BH30/1.0-1.2		F		**FILL**- dark reddish brown / greyish brown (5YR 3/2), 10% clay, 70% sand, 20% gravel, moderately compacted.	damp	
			D	Z	BH30/1.2-1.4						
		1.40									
		1.5	D	Z	BH30/1.4-1.5	Nat.	SC		**Clayey SAND**- dark grey (N3), 20% clay, 80% sand, medium dense.	damp	
									Terminated at 1.500 m		
		2.0									
		2.5									

Abbreviations:

Hydrocarbon Odour
H High
M Medium
L Low
Z Zero

Sample Type
D Disturbed
U Undisturbed
B Bulk
R Representative
C Continuous
J Jar
Asb Asbestos

Strength Testing
SPT Standard Penetration Test
DCP Dynamic Cone Penetrometer
PP Pocket Penetrometer

Water Levels
Encountered Groundwater
Stabilised Groundwater

Abandonment Method: Backfill with soil and compact.
Additional Comments:

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Kiran Baby** Date: **13/09/2022**
Checked By: **Thara Polassery** Date: **12/10/2022**

ATTACHMENT D

Geo-Logix P/L
Bld Q2 Level 3, 2309/4 Daydream St
Warriewood
NSW 2102

Attention: **Kiran Baby**

Report **923657-S**
Project name TERRY HILLS-PRIMARY
Project ID 2201064
Received Date Sep 14, 2022

Client Sample ID			**HA1/0.7_0.8**	**HA2/0.2_0.3**	**HA3/0.25_0.45**	[G01]**HA4/1.2_1.3**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Se0032229**	**S22-Se0032230**	**S22-Se0032231**	**S22-Se0032232**
Date Sampled			**Sep 07, 2022**	**Sep 07, 2022**	**Sep 07, 2022**	**Sep 07, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 100
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 250
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 250
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 250
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 250
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 250
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 500
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	560
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	560
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	1.0
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	0.7
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	0.8
4-Bromofluorobenzene (surr.)	1	%	87	108	110	98
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.9
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	1.2
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.0
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			HA1/0.7_0.8	HA2/0.2_0.3	HA3/0.25_0.45	[G01]HA4/1.2_1.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032229	S22-Se0032230	S22-Se0032231	S22-Se0032232
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	4.8
2-Fluorobiphenyl (surr.)	1	%	89	87	89	109
p-Terphenyl-d14 (surr.)	1	%	89	86	95	91
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.05	0.08	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	0.08	< 0.05	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	95	88	88	108
Tetrachloro-m-xylene (surr.)	1	%	91	88	89	104
Heavy Metals						
Arsenic	2	mg/kg	32	10	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	54	70	13	42
Copper	5	mg/kg	< 5	< 5	< 5	29
Lead	5	mg/kg	< 5	12	7.1	10
Mercury	0.1	mg/kg	< 0.1	0.8	0.6	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	40
Zinc	5	mg/kg	< 5	11	6.2	34
% Moisture	1	%	9.8	13	13	7.4

Client Sample ID			HA5/0.7_0.8	HA6/0.5_0.6	BH7/0.8_0.9	[G01]BH8/0.3_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032233	S22-Se0032234	S22-Se0032235	S22-Se0032236
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 100
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 250
TRH C29-C36	50	mg/kg	< 50	65	< 50	< 250
TRH C10-C36 (Total)	50	mg/kg	< 50	65	< 50	< 250
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 250
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 250
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 500
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 500
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 500
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	0.4	< 0.1	0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	0.3	< 0.2	0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	0.4	< 0.3	0.3
4-Bromofluorobenzene (surr.)	1	%	103	106	108	104
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.4
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	2.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	2.9
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.3
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.8
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.2
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.3
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.1
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.8
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.2
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.9
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	18
2-Fluorobiphenyl (surr.)	1	%	89	93	91	107
p-Terphenyl-d14 (surr.)	1	%	84	88	85	84
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5

Client Sample ID			HA5/0.7_0.8	HA6/0.5_0.6	BH7/0.8_0.9	[G01]BH8/0.3_0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032233	S22-Se0032234	S22-Se0032235	S22-Se0032236
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	74	76	90	75
Tetrachloro-m-xylene (surr.)	1	%	90	94	92	101
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	2.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.9	9.0	5.4	16
Copper	5	mg/kg	< 5	< 5	< 5	15
Lead	5	mg/kg	< 5	21	6.5	40
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	11
Zinc	5	mg/kg	< 5	17	9.8	56
% Moisture	1	%	15	16	6.9	15
% Clay	1	%	-	9.2	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	< 10	-	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	5.0	-	-

Client Sample ID			[G01]BH9/0.3_0.6	BH10/0.9_1	BH11/1_1.2	BH12/0.2_0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032237	S22-Se0032238	S22-Se0032239	S22-Se0032240
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 100	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 250	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 250	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 250	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 250	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 250	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 500	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 500	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 500	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	0.2	< 0.1	0.3	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	112	109	101	107
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	0.9	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.2	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.5	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	0.9	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	1.7	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	2.0	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	6.7	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	96	85	81	85
p-Terphenyl-d14 (surr.)	1	%	99	84	83	83
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05

Client Sample ID			[G01]BH9/0.3_0.6	BH10/0.9_1	BH11/1_1.2	BH12/0.2_0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032237	S22-Se0032238	S22-Se0032239	S22-Se0032240
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	88	96	86	92
Tetrachloro-m-xylene (surr.)	1	%	94	85	86	86
Heavy Metals						
Arsenic	2	mg/kg	3.2	3.2	3.6	18
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	< 5	30	54
Copper	5	mg/kg	19	< 5	< 5	< 5
Lead	5	mg/kg	26	6.0	7.2	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	0.1	< 0.1
Nickel	5	mg/kg	8.7	< 5	< 5	< 5
Zinc	5	mg/kg	48	< 5	< 5	< 5
% Moisture	1	%	14	10	12	7.8
% Clay	1	%	-	-	-	2.5
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	-	-	50
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	-	-	1.3

Client Sample ID			BH13/0.3_0.5	BH14/0.3_0.7	BH15/0.3_0.6	BH16/0.55_0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032241	S22-Se0032242	S22-Se0032243	S22-Se0032244
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	82	80
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	82	80
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.6
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	94	91	100	89
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	88	79	86	84
p-Terphenyl-d14 (surr.)	1	%	78	80	81	80
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.17
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.72
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			BH13/0.3_0.5	BH14/0.3_0.7	BH15/0.3_0.6	BH16/0.55_0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032241	S22-Se0032242	S22-Se0032243	S22-Se0032244
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	0.10	1.0
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	0.1	1
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.89
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	0.1	1.89
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	80	90	77	66
Tetrachloro-m-xylene (surr.)	1	%	90	84	86	82
Heavy Metals						
Arsenic	2	mg/kg	12	15	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	50	43	15	22
Copper	5	mg/kg	< 5	< 5	6.0	14
Lead	5	mg/kg	6.9	< 5	7.8	13
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	25
Nickel	5	mg/kg	5.3	< 5	< 5	13
Zinc	5	mg/kg	< 5	< 5	13	28
% Moisture	1	%	7.8	11	7.6	8.3

Client Sample ID			BH17/0.6_0.8	BH18/0.2_0.5	BH19/0.1_0.3	BH20/0.6_0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032245	S22-Se0032246	S22-Se0032247	S22-Se0032248
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	120	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	110	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	230	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			BH17/0.6_0.8	BH18/0.2_0.5	BH19/0.1_0.3	BH20/0.6_0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032245	S22-Se0032246	S22-Se0032247	S22-Se0032248
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	180	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	180	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	79	91	97	88
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	1.2	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	1.2	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	4.6	< 0.5
2-Fluorobiphenyl (surr.)	1	%	79	67	86	81
p-Terphenyl-d14 (surr.)	1	%	85	84	78	82
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			BH17/0.6_0.8	BH18/0.2_0.5	BH19/0.1_0.3	BH20/0.6_0.7
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032245	S22-Se0032246	S22-Se0032247	S22-Se0032248
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	101	107	95	112
Tetrachloro-m-xylene (surr.)	1	%	85	87	86	87
Heavy Metals						
Arsenic	2	mg/kg	16	2.1	3.2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	10	17	16	8.7
Copper	5	mg/kg	< 5	9.8	10	< 5
Lead	5	mg/kg	42	7.5	17	7.3
Mercury	0.1	mg/kg	0.2	0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	7.8	7.9	< 5
Zinc	5	mg/kg	9.8	20	33	12
% Moisture	1	%	20	16	8.3	11
% Clay	1	%	19	-	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	< 10	-	-	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	11	-	-	-

Client Sample ID			BH21/0.3_0.5	BH22/0.3_0.6	BH23/1_1.2	BH24/0.3_0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032249	S22-Se0032250	S22-Se0032251	S22-Se0032252
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	62	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	62	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50

Client Sample ID			BH21/0.3_0.5	BH22/0.3_0.6	BH23/1_1.2	BH24/0.3_0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032249	S22-Se0032250	S22-Se0032251	S22-Se0032252
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	0.2	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	81	91	87	87
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	83	83	85	83
p-Terphenyl-d14 (surr.)	1	%	74	79	80	78
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	0.13	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	0.07	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			BH21/0.3_0.5	BH22/0.3_0.6	BH23/1_1.2	BH24/0.3_0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032249	S22-Se0032250	S22-Se0032251	S22-Se0032252
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	0.07	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	0.13	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	0.2	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	84	73	79	62
Tetrachloro-m-xylene (surr.)	1	%	87	86	85	89
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	2.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	19	15	13
Copper	5	mg/kg	< 5	6.1	< 5	9.3
Lead	5	mg/kg	32	17	11	9.2
Mercury	0.1	mg/kg	< 0.1	0.7	0.2	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	16	39	27	17
% Moisture	1	%	16	10	16	16

Client Sample ID			BH25/0.5_0.8	BH26/0.4_0.6	[G01]BH27/0.2_0.5	BH28/0.3_0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032253	S22-Se0032254	S22-Se0032255	S22-Se0032256
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	110	100	< 50
TRH C29-C36	50	mg/kg	< 50	240	180	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	350	280	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	260	210	< 100
TRH >C34-C40	100	mg/kg	< 100	240	180	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	500	390	< 100

Client Sample ID			BH25/0.5_0.8	BH26/0.4_0.6	[G01]BH27/0.2_0.5	BH28/0.3_0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032253	S22-Se0032254	S22-Se0032255	S22-Se0032256
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	0.2	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	90	98	91	92
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	1.3	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.6	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	0.8	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	1.0	1.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	0.5	0.7	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	1.5	6.9	< 0.5
2-Fluorobiphenyl (surr.)	1	%	78	79	78	88
p-Terphenyl-d14 (surr.)	1	%	82	78	58	80
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05

Client Sample ID			BH25/0.5_0.8	BH26/0.4_0.6	[G01]BH27/0.2_0.5	BH28/0.3_0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Se0032253	S22-Se0032254	S22-Se0032255	S22-Se0032256
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	97	101	[Q09]INT	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	87	80	81	97
Heavy Metals						
Arsenic	2	mg/kg	< 2	3.2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	15	8.4	11
Copper	5	mg/kg	8.2	14	15	5.3
Lead	5	mg/kg	11	53	14	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	14	7.5	< 5
Zinc	5	mg/kg	19	31	35	< 5
% Moisture	1	%	16	6.0	11	13
% Clay	1	%	-	8.2	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	41	-	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	9.8	-	-

Client Sample ID			BH30/1_1.2	DS1	[G01]DS2	SPIKE1
Sample Matrix			Soil	Soil	Soil	Trip Spike (solid)
Eurofins Sample No.			S22-Se0032257	S22-Se0032258	S22-Se0032259	S22-Se0032260
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	51	-
TRH C29-C36	50	mg/kg	56	< 50	130	-
TRH C10-C36 (Total)	50	mg/kg	56	< 50	181	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	120	-
TRH >C34-C40	100	mg/kg	< 100	< 100	170	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	290	-

Client Sample ID			BH30/1_1.2	DS1	[G01]DS2	SPIKE1
Sample Matrix			Soil	Soil	Soil	Trip Spike (solid)
Eurofins Sample No.			S22-Se0032257	S22-Se0032258	S22-Se0032259	S22-Se0032260
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	95	97	89	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	84	76	82	-
p-Terphenyl-d14 (surr.)	1	%	71	70	64	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 1	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-

Client Sample ID			BH30/1_1.2	DS1	[G01]DS2	SPIKE1
Sample Matrix			Soil	Soil	Soil	Trip Spike (solid)
Eurofins Sample No.			S22-Se0032257	S22-Se0032258	S22-Se0032259	S22-Se0032260
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 10	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	-
Dibutylchlorendate (surr.)	1	%	[Q09]INT	[Q09]INT	81	-
Tetrachloro-m-xylene (surr.)	1	%	90	84	85	-
Heavy Metals						
Arsenic	2	mg/kg	4.4	< 2	< 2	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	11	13	21	-
Copper	5	mg/kg	13	8.1	14	-
Lead	5	mg/kg	37	7.3	8.9	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	5.9	< 5	7.1	-
Zinc	5	mg/kg	44	12	18	-
% Moisture	1	%	8.6	12	8.2	-
TRH C6-C10	1	%	-	-	-	110
Total Recoverable Hydrocarbons						
Naphthalene	1	%	-	-	-	100
TRH C6-C9	1	%	-	-	-	110
BTEX						
Benzene	1	%	-	-	-	100
Ethylbenzene	1	%	-	-	-	100
m&p-Xylenes	1	%	-	-	-	100
o-Xylene	1	%	-	-	-	110
Toluene	1	%	-	-	-	110
Xylenes - Total	1	%	-	-	-	110
4-Bromofluorobenzene (surr.)	1	%	-	-	-	82

Client Sample ID			BLANK1	BH29/0.8_0.9
Sample Matrix			Trip Blank (solid)	Soil
Eurofins Sample No.			S22-Se0032261	S22-Se0032264
Date Sampled			Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20
TRH C15-C28	50	mg/kg	-	< 50
TRH C29-C36	50	mg/kg	-	56
TRH C10-C36 (Total)	50	mg/kg	-	56
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			BLANK1	BH29/0.8_0.9
Sample Matrix			Trip Blank (solid)	Soil
Eurofins Sample No.			S22-Se0032261	S22-Se0032264
Date Sampled			Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50
TRH >C16-C34	100	mg/kg	-	< 100
TRH >C34-C40	100	mg/kg	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	93	86
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	80
p-Terphenyl-d14 (surr.)	1	%	-	65
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05
a-HCH	0.05	mg/kg	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05
b-HCH	0.05	mg/kg	-	< 0.05
d-HCH	0.05	mg/kg	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05

Client Sample ID			BLANK1	BH29/0.8_0.9
Sample Matrix			Trip Blank (solid)	Soil
Eurofins Sample No.			S22-Se0032261	S22-Se0032264
Date Sampled			Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Endosulfan I	0.05	mg/kg	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.05
Toxaphene	0.5	mg/kg	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	106
Tetrachloro-m-xylene (surr.)	1	%	-	87
Heavy Metals				
Arsenic	2	mg/kg	-	< 2
Cadmium	0.4	mg/kg	-	< 0.4
Chromium	5	mg/kg	-	11
Copper	5	mg/kg	-	8.2
Lead	5	mg/kg	-	8.8
Mercury	0.1	mg/kg	-	< 0.1
Nickel	5	mg/kg	-	< 5
Zinc	5	mg/kg	-	10
% Moisture	1	%	-	13

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Sep 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Sep 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Sep 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Sep 20, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Eurofins Suite B9			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Sep 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Sep 20, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Sep 20, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Sep 20, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Sep 15, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
% Clay	Brisbane	Sep 26, 2022	14 Days
- Method: LTM-GEN-7040			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	Sydney	Sep 26, 2022	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Sep 27, 2022	28 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			

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Warriewood
NSW 2102

Project Name: TERRY HILLS-PRIMARY
Project ID: 2201064

Order No.: P05603TP
Report #: 923657
Phone: 02 9979 1722
Fax: 02 9979 1222

Received: Sep 14, 2022 1:25 PM
Due: Sep 21, 2022
Priority: 5 Day
Contact Name: Kiran Baby

Eurofins Analytical Services Manager : Asim Khan

Sample Detail						% Clay	HOLD	Moisture Set	Cation Exchange Capacity	Eurofins Suite B9	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254									X	X	X	
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X						
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	HA1/0.7_0.8	Sep 07, 2022		Soil	S22-Se0032229			X		X		
2	HA2/0.2_0.3	Sep 07, 2022		Soil	S22-Se0032230			X		X		
3	HA3/0.25_0.45	Sep 07, 2022		Soil	S22-Se0032231			X		X		
4	HA4/1.2_1.3	Sep 07, 2022		Soil	S22-Se0032232			X		X		
5	HA5/0.7_0.8	Sep 07, 2022		Soil	S22-Se0032233			X		X		
6	HA6/0.5_0.6	Sep 07, 2022		Soil	S22-Se0032234	X		X	X	X		
7	BH7/0.8_0.9	Sep 07, 2022		Soil	S22-Se0032235			X		X		
8	BH8/0.3_0.5	Sep 07, 2022		Soil	S22-Se0032236			X		X		
9	BH9/0.3_0.6	Sep 07, 2022		Soil	S22-Se0032237			X		X		
10	BH10/0.9_1	Sep 07, 2022		Soil	S22-Se0032238			X		X		
11	BH11/1_1.2	Sep 07, 2022		Soil	S22-Se0032239			X		X		

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Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X						
12	BH12/0.2_0.4	Sep 07, 2022		Soil	S22-Se0032240	X		X	X	X		
13	BH13/0.3_0.5	Sep 07, 2022		Soil	S22-Se0032241			X		X		
14	BH14/0.3_0.7	Sep 07, 2022		Soil	S22-Se0032242			X		X		
15	BH15/0.3_0.6	Sep 07, 2022		Soil	S22-Se0032243			X		X		
16	BH16/0.55_0.7	Sep 07, 2022		Soil	S22-Se0032244			X		X		
17	BH17/0.6_0.8	Sep 07, 2022		Soil	S22-Se0032245	X		X	X	X		
18	BH18/0.2_0.5	Sep 07, 2022		Soil	S22-Se0032246			X		X		
19	BH19/0.1_0.3	Sep 07, 2022		Soil	S22-Se0032247			X		X		
20	BH20/0.6_0.7	Sep 07, 2022		Soil	S22-Se0032248			X		X		
21	BH21/0.3_0.5	Sep 07, 2022		Soil	S22-Se0032249			X		X		
22	BH22/0.3_0.6	Sep 07, 2022		Soil	S22-Se0032250			X		X		
23	BH23/1_1.2	Sep 07, 2022		Soil	S22-Se0032251			X		X		
24	BH24/0.3_0.6	Sep 07, 2022		Soil	S22-Se0032252			X		X		
25	BH25/0.5_0.8	Sep 07, 2022		Soil	S22-Se0032253			X		X		

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Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X						
26	BH26/0.4_0.6	Sep 07, 2022		Soil	S22-Se0032254	X		X	X	X		
27	BH27/0.2_0.5	Sep 07, 2022		Soil	S22-Se0032255			X		X		
28	BH28/0.3_0.6	Sep 07, 2022		Soil	S22-Se0032256			X		X		
29	BH30/1_1.2	Sep 07, 2022		Soil	S22-Se0032257			X		X		
30	DS1	Sep 07, 2022		Soil	S22-Se0032258			X		X		
31	DS2	Sep 07, 2022		Soil	S22-Se0032259			X		X		
32	SPIKE1	Sep 07, 2022		Trip Spike (solid)	S22-Se0032260							X
33	BLANK1	Sep 07, 2022		Trip Blank (solid)	S22-Se0032261						X	
34	RW1	Sep 07, 2022		Water	S22-Se0032263					X		
35	BH29/0.8_0.9	Sep 07, 2022		Soil	S22-Se0032264			X		X		
36	HA1/0_0.2	Sep 07, 2022		Soil	S22-Se0032267		X					
37	HA1/0.4_0.5	Sep 07, 2022		Soil	S22-Se0032268		X					

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Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X						
38	HA1/1_1.1	Sep 07, 2022		Soil	S22-Se0032269		X					
39	HA2/0.7_0.8	Sep 07, 2022		Soil	S22-Se0032270		X					
40	HA3/0_0.25	Sep 07, 2022		Soil	S22-Se0032271		X					
41	HA3/0.7_0.8	Sep 07, 2022		Soil	S22-Se0032272		X					
42	HA4/0.1_0.4	Sep 07, 2022		Soil	S22-Se0032273		X					
43	HA4/1.1_1.2	Sep 07, 2022		Soil	S22-Se0032274		X					
44	HA5/0.2_0.3	Sep 07, 2022		Soil	S22-Se0032275		X					
45	HA5/1.2_1.4	Sep 07, 2022		Soil	S22-Se0032276		X					
46	HA6/1_1.2	Sep 07, 2022		Soil	S22-Se0032277		X					
47	BH7/0.4_0.5	Sep 07, 2022		Soil	S22-Se0032278		X					
48	BH7/1.8_2	Sep 07, 2022		Soil	S22-Se0032279		X					
49	BH7/2.5_2.6	Sep 07, 2022		Soil	S22-Se0032280		X					
50	BH8/1_1.2	Sep 07, 2022		Soil	S22-Se0032281		X					
51	BH9/0.8_1	Sep 07, 2022		Soil	S22-Se0032282		X					

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Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X						
52	BH10/0.3_0.6	Sep 07, 2022		Soil	S22-Se0032283		X					
53	BH10/1.3_1.5	Sep 07, 2022		Soil	S22-Se0032284		X					
54	BH10/2_2.2	Sep 07, 2022		Soil	S22-Se0032285		X					
55	BH11/0.3_0.6	Sep 07, 2022		Soil	S22-Se0032286		X					
56	BH11/1.4_1.5	Sep 07, 2022		Soil	S22-Se0032287		X					
57	BH12/1_1.2	Sep 07, 2022		Soil	S22-Se0032288		X					
58	BH13/1_1.2	Sep 07, 2022		Soil	S22-Se0032289		X					
59	BH14/1_1.2	Sep 07, 2022		Soil	S22-Se0032290		X					
60	BH15/0.9_1	Sep 07, 2022		Soil	S22-Se0032291		X					
61	BH15/1.4_1.5	Sep 07, 2022		Soil	S22-Se0032292		X					
62	BH16/0.3_0.5	Sep 07, 2022		Soil	S22-Se0032293		X					
63	BH16/1_1.2	Sep 07, 2022		Soil	S22-Se0032294		X					
64	BH17/1_1.2	Sep 07, 2022		Soil	S22-Se0032295		X					
65	BH18/1_1.2	Sep 07, 2022		Soil	S22-Se0032296		X					

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Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X						
66	BH19/0.7_1	Sep 07, 2022		Soil	S22-Se0032297		X					
67	BH20/0.2_0.4	Sep 07, 2022		Soil	S22-Se0032298		X					
68	BH20/1_1.2	Sep 07, 2022		Soil	S22-Se0032299		X					
69	BH21/1_1.2	Sep 07, 2022		Soil	S22-Se0032300		X					
70	BH21/1.8_2	Sep 07, 2022		Soil	S22-Se0032301		X					
71	BH21/3_3.2	Sep 07, 2022		Soil	S22-Se0032302		X					
72	BH22/0.8_1	Sep 07, 2022		Soil	S22-Se0032303		X					
73	BH23/0.1_0.4	Sep 07, 2022		Soil	S22-Se0032304		X					
74	BH23/1.8_2	Sep 07, 2022		Soil	S22-Se0032305		X					
75	BH24/1_1.2	Sep 07, 2022		Soil	S22-Se0032306		X					
76	BH25/1.2_1.4	Sep 07, 2022		Soil	S22-Se0032307		X					
77	BH25/1.4_1.6	Sep 07, 2022		Soil	S22-Se0032308		X					
78	BH26/1_1.2	Sep 07, 2022		Soil	S22-Se0032309		X					
79	BH27/0.8_1	Sep 07, 2022		Soil	S22-Se0032310		X					

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Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X						
80	BH28/0.8_1	Sep 07, 2022		Soil	S22-Se0032311		X					
81	BH29/0_0.1	Sep 07, 2022		Soil	S22-Se0032312		X					
82	BH29/0.3_0.4	Sep 07, 2022		Soil	S22-Se0032313		X					
83	BH30/0_0.2	Sep 07, 2022		Soil	S22-Se0032314		X					
84	BH30/0.5_0.7	Sep 07, 2022		Soil	S22-Se0032315		X					
85	BH30/1.2_1.4	Sep 07, 2022		Soil	S22-Se0032316		X					
86	BH30/1.4_1.5	Sep 07, 2022		Soil	S22-Se0032317		X					
Test Counts						4	51	32	4	33	1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Conductivity (1:5 aqueous extract at 25 °C as rec.)	uS/cm	< 10			10	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	84			70-130	Pass	
TRH C10-C14	%	70			70-130	Pass	
Naphthalene	%	83			70-130	Pass	
Naphthalene	%	81			70-130	Pass	
TRH C6-C10	%	89			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
TRH >C10-C16	%	75			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	98			70-130	Pass	
Toluene	%	101			70-130	Pass	
Ethylbenzene	%	97			70-130	Pass	
m&p-Xylenes	%	101			70-130	Pass	
o-Xylene	%	102			70-130	Pass	
Xylenes - Total*	%	102			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	89			70-130	Pass	
Acenaphthylene	%	85			70-130	Pass	
Anthracene	%	93			70-130	Pass	
Benz(a)anthracene	%	87			70-130	Pass	
Benzo(a)pyrene	%	80			70-130	Pass	
Benzo(b&j)fluoranthene	%	82			70-130	Pass	
Benzo(g.h.i)perylene	%	84			70-130	Pass	
Benzo(k)fluoranthene	%	88			70-130	Pass	
Chrysene	%	90			70-130	Pass	
Dibenz(a.h)anthracene	%	83			70-130	Pass	
Fluoranthene	%	87			70-130	Pass	
Fluorene	%	91			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	85			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	%	90			70-130	Pass	
Phenanthrene	%	89			70-130	Pass	
Pyrene	%	90			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	100			70-130	Pass	
4.4'-DDD	%	93			70-130	Pass	
4.4'-DDE	%	98			70-130	Pass	
4.4'-DDT	%	97			70-130	Pass	
a-HCH	%	86			70-130	Pass	
Aldrin	%	86			70-130	Pass	
b-HCH	%	98			70-130	Pass	
d-HCH	%	101			70-130	Pass	
Dieldrin	%	89			70-130	Pass	
Endosulfan I	%	95			70-130	Pass	
Endosulfan II	%	86			70-130	Pass	
Endosulfan sulphate	%	76			70-130	Pass	
Endrin	%	91			70-130	Pass	
Endrin aldehyde	%	75			70-130	Pass	
Endrin ketone	%	91			70-130	Pass	
g-HCH (Lindane)	%	103			70-130	Pass	
Heptachlor	%	118			70-130	Pass	
Heptachlor epoxide	%	104			70-130	Pass	
Hexachlorobenzene	%	92			70-130	Pass	
Methoxychlor	%	125			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	96			80-120	Pass	
Cadmium	%	94			80-120	Pass	
Chromium	%	87			80-120	Pass	
Copper	%	83			80-120	Pass	
Lead	%	103			80-120	Pass	
Mercury	%	100			80-120	Pass	
Nickel	%	82			80-120	Pass	
Zinc	%	85			80-120	Pass	
LCS - % Recovery							
% Clay	%	123			70-130	Pass	
Conductivity (1:5 aqueous extract at 25 °C as rec.)	%	90			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Se0032230	CP	%	100			75-125	Pass	
Cadmium	S22-Se0032230	CP	%	112			75-125	Pass	
Copper	S22-Se0032230	CP	%	110			75-125	Pass	
Lead	S22-Se0032230	CP	%	111			75-125	Pass	
Nickel	S22-Se0032230	CP	%	110			75-125	Pass	
Zinc	S22-Se0032230	CP	%	113			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Se0032247	CP	%	73			70-130	Pass	
Naphthalene	S22-Se0032247	CP	%	72			70-130	Pass	
TRH C6-C10	S22-Se0032247	CP	%	78			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzene	S22-Se0032247	CP	%	83			70-130	Pass	
Toluene	S22-Se0032247	CP	%	90			70-130	Pass	
Ethylbenzene	S22-Se0032247	CP	%	79			70-130	Pass	
m&p-Xylenes	S22-Se0032247	CP	%	86			70-130	Pass	
o-Xylene	S22-Se0032247	CP	%	86			70-130	Pass	
Xylenes - Total*	S22-Se0032247	CP	%	86			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Se0032247	CP	%	71			70-130	Pass	
4.4'-DDE	S22-Se0032247	CP	%	70			70-130	Pass	
b-HCH	S22-Se0032247	CP	%	64			70-130	Fail	Q08
d-HCH	S22-Se0032247	CP	%	70			70-130	Pass	
Endosulfan I	S22-Se0032247	CP	%	76			70-130	Pass	
Endrin	S22-Se0032247	CP	%	76			70-130	Pass	
g-HCH (Lindane)	S22-Se0032247	CP	%	85			70-130	Pass	
Heptachlor	S22-Se0032247	CP	%	93			70-130	Pass	
Hexachlorobenzene	S22-Se0032247	CP	%	70			70-130	Pass	
Methoxychlor	S22-Se0032247	CP	%	97			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Se0032250	CP	%	92			75-125	Pass	
Cadmium	S22-Se0032250	CP	%	93			75-125	Pass	
Chromium	S22-Se0032250	CP	%	118			75-125	Pass	
Copper	S22-Se0032250	CP	%	82			75-125	Pass	
Lead	S22-Se0032250	CP	%	123			75-125	Pass	
Mercury	S22-Se0032250	CP	%	89			75-125	Pass	
Nickel	S22-Se0032250	CP	%	81			75-125	Pass	
Zinc	S22-Se0032250	CP	%	104			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Se0032259	CP	%	86			75-125	Pass	
Cadmium	S22-Se0032259	CP	%	86			75-125	Pass	
Chromium	S22-Se0032259	CP	%	92			75-125	Pass	
Copper	S22-Se0032259	CP	%	75			75-125	Pass	
Lead	S22-Se0032259	CP	%	80			75-125	Pass	
Mercury	S22-Se0032259	CP	%	99			75-125	Pass	
Nickel	S22-Se0032259	CP	%	89			75-125	Pass	
Zinc	S22-Se0032259	CP	%	80			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	S22-Se0032234	CP	uS/cm	< 10	< 10	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Se0032236	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S22-Se0032236	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Se0032236	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Se0032236	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Se0032236	CP	mg/kg	0.1	0.1	7.9	30%	Pass	
Ethylbenzene	S22-Se0032236	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Se0032236	CP	mg/kg	0.2	0.2	3.9	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
o-Xylene	S22-Se0032236	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Se0032236	CP	mg/kg	0.3	< 0.3	4.5	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Se0032236	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Se0032236	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Se0032236	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Se0032236	CP	mg/kg	1.3	1.1	16	30%	Pass	
Benzo(a)pyrene	S22-Se0032236	CP	mg/kg	1.8	1.1	43	30%	Fail	Q15
Benzo(b&j)fluoranthene	S22-Se0032236	CP	mg/kg	1.2	0.9	25	30%	Pass	
Benzo(g.h.i)perylene	S22-Se0032236	CP	mg/kg	1.3	0.9	37	30%	Fail	Q15
Benzo(k)fluoranthene	S22-Se0032236	CP	mg/kg	2.1	1.2	61	30%	Fail	Q15
Chrysene	S22-Se0032236	CP	mg/kg	1.8	1.4	25	30%	Pass	
Dibenz(a.h)anthracene	S22-Se0032236	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Se0032236	CP	mg/kg	3.2	2.4	32	30%	Fail	Q15
Fluorene	S22-Se0032236	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Se0032236	CP	mg/kg	0.8	0.6	29	30%	Pass	
Naphthalene	S22-Se0032236	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Se0032236	CP	mg/kg	0.6	< 0.5	26	30%	Pass	
Pyrene	S22-Se0032236	CP	mg/kg	3.9	2.5	44	30%	Fail	Q15
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Se0032246	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Se0032246	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Se0032246	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Se0032246	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Se0032246	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Se0032246	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Se0032246	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Se0032246	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Se0032246	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Se0032246	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Se0032246	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Se0032246	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Se0032246	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Se0032246	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Naphthalene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Se0032246	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Se0032246	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Se0032246	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Se0032249	CP	mg/kg	< 2	2.1	24	30%	Pass	
Cadmium	S22-Se0032249	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Se0032249	CP	mg/kg	13	14	5.3	30%	Pass	
Copper	S22-Se0032249	CP	mg/kg	< 5	13	89	30%	Fail	Q15
Lead	S22-Se0032249	CP	mg/kg	32	18	55	30%	Fail	Q15
Mercury	S22-Se0032249	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Se0032249	CP	mg/kg	< 5	7.5	59	30%	Fail	Q15
Zinc	S22-Se0032249	CP	mg/kg	16	24	40	30%	Fail	Q15
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Se0032251	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S22-Se0032251	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Se0032251	CP	mg/kg	15	21	29	30%	Pass	
Copper	S22-Se0032251	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S22-Se0032251	CP	mg/kg	11	12	7.6	30%	Pass	
Mercury	S22-Se0032251	CP	mg/kg	0.2	0.1	24	30%	Pass	
Nickel	S22-Se0032251	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Se0032251	CP	mg/kg	27	29	9.3	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S22-Se0032252	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Se0032252	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Se0032252	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S22-Se0032252	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Se0032252	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Se0032252	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Se0032252	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Se0032252	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Se0032252	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Naphthalene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Se0032256	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Se0032256	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Se0032256	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Se0032258	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S22-Se0032258	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Se0032258	CP	mg/kg	13	14	1.0	30%	Pass	
Copper	S22-Se0032258	CP	mg/kg	8.1	8.6	5.8	30%	Pass	
Lead	S22-Se0032258	CP	mg/kg	7.3	7.2	1.3	30%	Pass	
Mercury	S22-Se0032258	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Se0032258	CP	mg/kg	< 5	7.0	36	30%	Fail	Q15
Zinc	S22-Se0032258	CP	mg/kg	12	12	1.2	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Quinn Raw	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Jonathon Angell	Senior Analyst-Inorganic
Mary Makarios	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Tel: +64 9 526 45 51
IANZ# 1327

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: 0800 856 450
IANZ# 1290

Sample Receipt Advice

Company name:	Geo-Logix P/L
Contact name:	Kiran Baby
Project name:	TERRY HILLS-PRIMARY
Project ID:	2201064
Turnaround time:	5 Day
Date/Time received	Sep 14, 2022 1:25 PM
Eurofins reference	923657

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 1.8 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

TS1 and TS2 sent to MEL lab.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Asim Khan on phone : or by email: AsimKhan@eurofins.com

Results will be delivered electronically via email to Kiran Baby - kbaby@geo-logix.com.au.

Note: A copy of these results will also be delivered to the general Geo-Logix P/L email address.

CHAIN OF CUSTODY

ct Manager: Kiran Raby
ntact email: Kbaby@geo-logix.com.au, tpolasseky@geo-logix.com.au
roject Name: Tolsey Hills - Primary
Project Number: 220106C Date Submitted: 14/09

Page 1 of 5
Purchase Order No: P05603 TP.
Quote Reference:
Send Invoice to: accounts@geo-logix.com.au
TAT required: Standard

ANALYSIS REQUIRED

Lab ID	Sample ID	Date	Matrix: soil	water	air	paint, filters	other	Comments
✓	HA1/0.0-0.2	7/9/22	X					
✓	HA1/0.4-0.5							
✓	HA1/0.7-0.8							
✓	HA1/1.0-1.1							
✓	HA2/0.2-0.3							
✓	HA2/0.7-0.8							
✓	HA3/0.0-0.25							
✓	HA3/0.25-0.45							
✓	HA3/0.7-0.8							
✓	HA4/0.1-0.4							
✓	~~HA4/1.1-1.2~~							
✓	HA4/1.2-1.3							HA4/1.1-1.2
✓	HA5/0.2-0.3							
✓	HA5/0.7-0.8							
✓	HA5/1.2-1.4							
✓	HA6/0.5-0.6							
✓	HA6/1.0-1.2	↓	↓					

Lab ID	COMPOSITE	TRH - C6 - C10	TRH - C10 - C40	VOCs	BTEXN	PAHs	PCBs	OCPs	OPPs	Phenols	Metals - M8	Metals - Lead	Metals - Specify **	TCLP	Asbestos (ID only)	Asbestos (WA DOH)	Foreign Materials	Conductivity (EC)	pH	CEC	Clay content	Hold	SUITE
✓																						X	
✓		X	X		X	X		X	X		X											X	
✓																							B9
✓		X	X		X	X		X			X											X	
✓																							B9
✓																						X	
✓		X	X		X	X		X			X											X	
✓																							B9
✓																						X	
✓		X	X		X	X		X			X											X	
✓																						X	
✓		X	X		X	X		X			X												B9
✓		X	X		X	X		X			X											X	
✓		X	X		X	X		X			X												B9
✓		X	X		X	X		X			X							X	X	X		X	
✓																						X	B9

Metals**(circle) As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Cr^{6+}, Cr^{3+}, Fe^{2+}, Fe^{3+}, Be, B, Al, V, Mn, Fe, Co, Se, Sr, Sn, Mo, Ag, Ba, Tl, Bi, Sb

Eurofins MGT Suite Codes

B1	TRH/BTEXN
B1A	TRH/MAH
B2	TRH/BTEXN/Pb
B2A	TRH/MAH/Pb
B3	PAH/Phenols
B4	TRH/BTEXN/PAH
B4A	TRH/BTEXN/PAH/Phenols
B5	TRH/BTEXN/M7
B6	TRH/BTEXN/M8
B7	TRH/BTEXN/PAH/M8
B7A	TRH/BTEXN/PAH/Phenols/M8
B8	TRH/VOC/PAH/M8
B9	TRH/BTEXN/PAH/OCP/M8
B10	TRH/BTEXN/PAH/OCP/OPP/M8
B11	Na/K/Ca/Mg/Cl/SO_4/CO_3/HCO_3/NH_3/NO_3
B11A	B11/Alkalinity
B11B	B11/EC/TDS
B12	TRH/BTEXN/Oxygenates/Ethanol
B12A	TRH/BTEXN/Oxygenates
B13	OCP/PCB
B14	OCP/OPP
B15	OCP/OPP/PCB
B16	TDS/SO_4/CH_4/Alk/BOD/COD/HPC/CUB
B17	SO_4/NO_3/Fe++/HPC/CUB
B18	Cl-/SO_4/pH
B19	N/P/K
B20	CEC/%ESP/Ca/Ma/Na/K

Chain of Custody

elinquished by: TP Date/Time: 14/9/22 Signature: Received by: NARESH Date/Time: Signature:

923657

Version: V1

Geo-Logix Pty Ltd
Building Q2, Level 3
2309/4 Daydream St
Warriewood, NSW 2102
ABN: 86 116 892 936
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CHAIN OF CUSTODY

Page 2 of 5

Project Manager: Kiran Baby
Contact email: kbaby@geo-logix.com.au, tpolasseny@geo-logix.com.au
Project Name: Terrey Hills-Primary
Project Number: 2201064 Date Submitted: 14/09

Purchase Order No: P05603TP
Quote Reference:
Send Invoice to: accounts@geo-logix.com.au
TAT required: Standard

ANALYSIS REQUIRED

Lab ID	Sample ID	Date	Matrix: soil	water	air	paint, filters	other	Comments	COMPOSITE	TRH - C6 - C10	TRH - C10 - C40	VOCs	BTEXN	PAHs	PCBs	OCPs	OPPs	Phenols	Metals - M8	Metals - Lead	Metals - Specify **	TCLP	Asbestos (ID only)	Asbestos (WA DOH)	Foreign Materials	Conductivity (EC)	pH	CEC	dry content	Hold	SUITE
	BH7/0.4-0.5	9/9/22	X																										X	
	BH7/0.8-0.9									X	X		X	X		X			X											B9
	BH7/1.8-2.0																												X	
	BH7/2.5-2.6																												X	
	BH8/0.3-0.5									X	X		X	X		X			X											B9
	BH8/1.0-1.2																												X	
	BH9/0.3-0.6									X	X		X	X		X			X											B9
	BH9/0.8-1.0																												X	
	BH10/0.3-0.6																												X	
	BH10/0.9-1.0									X	X		X	X		X			X											B9
	BH10/1.3-1.5																												X	
	BH10/2.0-2.2																												X	
	BH11/0.3-0.6																												X	
	BH11/1.0-1.2									X	X		X	X		X			X											B9
	BH11/1.4-1.5																												X	
	BH12/0.2-0.4									X	X		X	X		X			X								X	X	X		B9
	BH12/1.0-1.2																												X	

Eurofins MGT Suite Codes

B1	TRH/BTEXN
B1A	TRH/MAH
B2	TRH/BTEXN/Pb
B2A	TRH/MAH/Pb
B3	PAH/Phenols
B4	TRH/BTEXN/PAH
B4A	TRH/BTEXN/PAH/Phenols
B5	TRH/BTEXN/M7
B6	TRH/BTEXN/M8
B7	TRH/BTEXN/PAH/M8
B7A	TRH/BTEXN/PAH/Phenols/M8
B8	TRH/VOC/PAH/M8
B9	TRH/BTEXN/PAH/OCP/M8
B10	TRH/BTEXN/PAH/OCP/OPP/M8
B11	Na/K/Ca/Mg/Cl/SO_4/CO_3/HCO_3/NH_3/NO_3
B11A	B11/Alkalinity
B11B	B11/EC/TDS
B12	TRH/BTEXN/Oxygenates/Ethanol
B12A	TRH/BTEXN/Oxygenates
B13	OCP/PCB
B14	OCP/OPP
B15	OCP/OPP/PCB
B16	TDS/SO_4/CH_4/Alk/BOD/COD/HPC/CUB
B17	SO_4/NO_3/Fe++/HPC/CUB
B18	Cl-/SO_4/pH
B19	N/P/K
B20	CEC/%ESP/Ca/Ma/Na/K

Metals(circle)** As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Cr^{6+}, Cr^{3+}, Fe^{2+}, Fe^{3+}, Be, B, Al, V, Mn, Fe, Co, Se, Sr, Sn, Mo, Ag, Ba, Tl, Bi, Sb

Chain of Custody

Relinquished by: TP Date/Time: 14/9/22 Signature:
Received by: NARESH Date/Time: Signature:

923657

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CHAIN OF COUSTODY

Project Manager: Kiran Baby
Contact email: kbaby@geo-logix.com.au, tpolassery@geo-logix.com.au
Project Name: Terry Hills-Primary
Project Number: 2201064
Date Submitted: 14/09

Purchase Order No: PO5603TP
Quote Reference:
Send Invoice to: accounts@geo-logix.com.au
TAT required: Standard

ANALYSIS REQUIRED

Lab ID	Sample ID	Date	soil	water	air	paint, filters	other	Comments	COMPOSITE	TRH - C6 - C10	TRH - C10 - C40	VOCs	BTEXN	PAHs	PCBs	OCPs	OPPs	Phenols	Metals - M8	Metals - Lead	Metals - Specify **	TCLP	Asbestos (ID only)	Asbestos (WA DOH)	Foreign Materials	Conductivity (EC)	pH	CEC	Clay content	Hold	SUITE
✓	BH13/0.3-0.5	9/9/22	X							X	X		X	X		X			X												B9
✓	BH13/1.0-1.2																													✓	
✓	BH14/0.3-0.7									X	X		X	X		X			X												B9
✓	BH14/1.0-1.2																													X	
✓	BH15/0.3-0.6									X	X		X	X		X			X												B9
✓	BH15/0.9-1.0																													X	
✓	BH15/1.4-1.5																													X	
✓	BH16/0.3-0.5																													X	
✓	BH16/0.55-0.7									X	X		X	X		X			X												B9
✓	BH16/1.0-1.2																													X	
✓	BH17/0.6-0.8									X	X		X	X		X			X									X	X	X		B9
✓	BH17/1.0-1.2																													X	
✓	BH18/0.2-0.5									X	X		X	X		X			X												B9
✓	BH18/1.0-1.2																													X	
✓	BH19/0.1-0.3									X	X		X	X		X			X												B9
✓	BH19/0.7-1.0																													X	
✓	BH20/0.2-0.4																													X	
✓	BH20/0.6-0.7									X	X		X	X		X			X												B9

Eurofins MGT Suite Codes

Code	Suite
B1	TRH/BTEXN
B1A	TRH/MAH
B2	TRH/BTEXN/Pb
B2A	TRH/MAH/Pb
B3	PAH/Phenols
B4	TRH/BTEXN/PAH
B4A	TRH/BTEXN/PAH/Phenols
B5	TRH/BTEXN/M7
B6	TRH/BTEXN/M8
B7	TRH/BTEXN/PAH/M8
B7A	TRH/BTEXN/PAH/Phenols/M8
B8	TRH/VOC/PAH/M8
B9	TRH/BTEXN/PAH/OCP/M8
B10	TRH/BTEXN/PAH/OCP/OPP/M8
B11	Na/K/Ca/Mg/Cl/SO_4/CO_3/HCO_3/NH_3/NO_3
B11A	B11/Alkalinity
B11B	B11/EC/TDS
B12	TRH/BTEXN/Oxygenates/Ethanol
B12A	TRH/BTEXN/Oxygenates
B13	OCP/PCB
B14	OCP/OPP
B15	OCP/OPP/PCB
B16	TDS/SO_4/CH_4/Alk/BOD/COD/HPC/CUB
B17	SO_4/NO_3/Fe++/HPC/CUB
B18	Cl-/SO_4/pH
B19	N/P/K
B20	CEC/%ESP/Ca/Ma/Na/K

Metals**(circle) As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Cr^{6+}, Cr^{3+}, Fe^{2+}, Fe^{3+}, Be, B, Al, V, Mn, Fe, Co, Se, Sr, Sn, Mo, Ag, Ba, Tl, Bi, Sb

Chain of Custody

Relinquished by: TP Date/Time: 14/9/22 Signature: [signature] Received by: NARESH Date/Time: Signature: [signature]

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CHAIN OF CUSTODY

Page 2 of 5

Project Manager: Kieran Baby
Contact email: kbaby@geo-logix.com.au, tpolasseg@geo-logix.com.au
Project Name: Jessy Hills - Primary
Project Number: 2201064 Date Submitted: 14/09
Purchase Order No: P05603TP
Quote Reference:
Send Invoice to: accounts@geo-logix.com.au
TAT required: Standard

ANALYSIS REQUIRED

Lab ID	Sample ID	Date	Matrix: soil	water	air	paint, filters	other	Comments	COMPOSITE	TRH - C6 - C10	TRH - C10 - C40	VOCs	BTEXN	PAHs	PCBs	OCPs	OPPs	Phenols	Metals - M8	Metals - Lead	Metals - Specify **	TCLP	Asbestos (ID only)	Asbestos (WA DOH)	Foreign Materials	Conductivity (EC)	pH	CEC	Clay Content	HOLD	SUITE
✓	BH20/1.0-1.2	9/9/22	X																										X	
✓	BH21/0.30.5									X	X		X	X		X			X											B9
✓	BH21/1.0-1.2																												X	
✓	BH21/1.8-2.0																												X	
✓	BH21/3.0-3.2																												X	
✓	BH22/0.3-0.6									X	X		X	X		X			X											B9
✓	BH22/0.8-1.0																												X	
✓	BH23/0.1-0.4																												X	
✓	BH23/1.0-1.2									X	X		X	X		X			X											B9
✓	BH23/1.8-2.0																												X	
✓	BH24/0.3-0.6									X	X		X	X		X			X											B9
✓	BH24/1.0-1.2																												X	
✓	BH25/0.5-0.8									X	X		X	X		X			X											B9
✓	BH25/1.2-1.4																												X	
✓	BH25/1.4-1.6										✓																		X	
✓	BH26/0.4-0.6									X	X		X	X		X			X								X	X	X		B9
✓	BH26/1.0-1.2																												X	
✓	BH27/0.2-0.5	✓	✓							X	X		X	X		X			X											B9

Eurofins MGT Suite Codes

B1	TRH/BTEXN
B1A	TRH/MAH
B2	TRH/BTEXN/Pb
B2A	TRH/MAH/Pb
B3	PAH/Phenols
B4	TRH/BTEXN/PAH
B4A	TRH/BTEXN/PAH/Phenols
B5	TRH/BTEXN/M7
B6	TRH/BTEXN/M8
B7	TRH/BTEXN/PAH/M8
B7A	TRH/BTEXN/PAH/Phenols/M8
B8	TRH/VOC/PAH/M8
B9	TRH/BTEXN/PAH/OCP/M8
B10	TRH/BTEXN/PAH/OCP/OPP/M8
B11	Na/K/Ca/Mg/Cl/SO_4/CO_3/HCO_3/NH_3/NO_3
B11A	B11/Alkalinity
B11B	B11/EC/TDS
B12	TRH/BTEXN/Oxygenates/Ethanol
B12A	TRH/BTEXN/Oxygenates
B13	OCP/PCB
B14	OCP/OPP
B15	OCP/OPP/PCB
B16	TDS/SO_4/CH_4/Alk/BOD/COD/HPC/CUB
B17	SO_4/NO_3/Fe++/HPC/CUB
B18	Cl-/SO_4/pH
B19	N/P/K
B20	CEC/%ESP/Ca/Mg/Na/K

Metals(circle)** As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Cr^{6+}, Cr^{3+}, Fe^{2+}, Fe^{3+}, Be, B, Al, V, Mn, Fe, Co, Se, Sr, Sn, Mo, Ag, Ba, Tl, Bi, Sb

Chain of Custody

Relinquished by: TP Date/Time: 14/9/22 Signature: Received by: Date/Time: Signature:

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Warriewood, NSW 2102
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CHAIN OF COUSTODY

Project Manager: Kiran Baby
Contact email: kbaby@geo-logix.com.au, tpolassery@geo-logix.com.au
Project Name: Terry Hills - Phoenix
Project Number: 2201064 Date Submitted: 14/09

Purchase Order No: PO5603TP
Quote Reference:
Send Invoice to: accounts@geo-logix.com.au
TAT required: Standard

ANALYSIS REQUIRED

Lab ID	Sample ID	Date	soil	water	air	paint, filters	other	Comments	COMPOSITE	TRH - C6 - C10	TRH - C10 - C40	VOCs	BTEXN	PAHs	PCBs	OCPs	OPPs	Phenols	Metals - M8	Metals - Lead	Metals - Specify **	TCLP	Asbestos (ID only)	Asbestos (WA DOH)	Foreign Materials	Conductivity (EC)	pH			Hold	SUITE
	BH27/0.8-1.0	9/9/22	X																											X	
	BH28/0.3-0.6	↓	↓							X	X		X	X		X			X												B9
	BH28/0.8-1.0		↓																											X	
	BH29/0.0-0.1	13/9/22	↓																											X	
	BH29/0.3-0.4	↓	↓							~~X~~	~~X~~		~~X~~	~~X~~		~~X~~			~~X~~											X	[illegible]
	BH30/0.0-0.2	↓	↓																											X	
	BH30/0.5-0.7	↓	↓																											X	
	BH30/1.0-1.2	↓	↓							X	X		X	X		X			X												B9
	BH30/1.2-1.4	↓	↓																											X	
	DS1	7/9/22	↓							X	X		X	X		X			X												B9
	DS2	9/9/22	↓							X	X		X	X		X			X												B9
	SPIKE1	7/9/22	✓										✓																		
	BLANK1	7/9/22	✓										✓																		
	RW1	7/9/22		✓						✓	✓		✓	✓		✓			✓												
	BH30/1.4-1.5																													X	
	BH29/0.8-0.7							B9		X	X		X	X		X			X											~~X~~	B9

Eurofins MGT Suite Codes

- B1 TRH/BTEXN
- B1A TRH/MAH
- B2 TRH/BTEXN/Pb
- B2A TRH/MAH/Pb
- B3 PAH/Phenols
- B4 TRH/BTEXN/PAH
- B4A TRH/BTEXN/PAH/Phenols
- B5 TRH/BTEXN/M7
- B6 TRH/BTEXN/M8
- B7 TRH/BTEXN/PAH/M8
- B7A TRH/BTEXN/PAH/Phenols/M8
- B8 TRH/VOC/PAH/M8
- B9 TRH/BTEXN/PAH/OCP/M8
- B10 TRH/BTEXN/PAH/OCP/OPP/M8
- B11 Na/K/Ca/Mg/Cl/SO_4/CO_3/HCO_3/NH_3/NO_3
- B11A B11/Alkalinity
- B11B B11/EC/TDS
- B12 TRH/BTEXN/Oxygenates/Ethanol
- B12A TRH/BTEXN/Oxygenates
- B13 OCP/PCB
- B14 OCP/OPP
- B15 OCP/OPP/PCB
- B16 TDS/SO_4/CH_4/Alk/BOD/COD/HPC/CUB
- B17 SO_4/NO_3/Fe++/HPC/CUB
- B18 Cl/SO_4/pH
- B19 N/P/K
- B20 CEC/%ESP/Ca/Ma/Na/K

Metals**(circle) As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Cr^{6+}, Cr^{3+}, Fe^{2+}, Fe^{3+}, Be, B, Al, V, Mn, Fe, Co, Se, Sr, Sn, Mo, Ag, Ba, Tl, Bi, Sb

Chain of Custody

Relinquished by: TP Date/Time: 14/9/22 Signature: Thacep Received by: NARESH Date/Time: Signature: [signature]

#923657

Geo-Logix P/L
Bld Q2 Level 3, 2309/4 Daydream St
Warriewood
NSW 2102

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Kiran Baby**

Report **928993-S**
Project name ADDITIONAL - TERRY HILLS-PRIMARY
Project ID ADDITIONAL - 2201064
Received Date Oct 05, 2022

Client Sample ID			**HA4/0.1-0.4**	**BH7/2.5-2.6**	**BH21/3.0-3.2**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Oc0006907**	**S22-Oc0006993**	**S22-Oc0006994**
Date Sampled			**Sep 07, 2022**	**Sep 07, 2022**	**Sep 07, 2022**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	79	73	85
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5

Client Sample ID			HA4/0.1-0.4	BH7/2.5-2.6	BH21/3.0-3.2
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S22-Oc0006907	S22-Oc0006993	S22-Oc0006994
Date Sampled			Sep 07, 2022	Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	92	124	131
p-Terphenyl-d14 (surr.)	1	%	101	126	143
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	79	126	135
Tetrachloro-m-xylene (surr.)	1	%	97	133	145
Heavy Metals					
Arsenic	2	mg/kg	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	16	18	20
Copper	5	mg/kg	< 5	< 5	< 5
Lead	5	mg/kg	9.7	7.6	6.9
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5
Zinc	5	mg/kg	14	< 5	< 5
% Moisture	1	%	9.9	19	15

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B9			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 07, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 07, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 07, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 07, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 07, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Oct 07, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Oct 07, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Oct 05, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

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Project Name: ADDITIONAL - TERRY HILLS-PRIMARY
Project ID: ADDITIONAL - 2201064

Order No.:
Report #: 928993
Phone: 02 9979 1722
Fax: 02 9979 1222

Received: Oct 5, 2022 11:50 AM
Due: Oct 10, 2022
Priority: 3 Day
Contact Name: Kiran Baby

Eurofins Analytical Services Manager : Asim Khan

Sample Detail						Moisture Set	Eurofins Suite B9
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	HA4/0.1-0.4	Sep 07, 2022		Soil	S22-Oc0006907	X	X
2	BH7/2.5-2.6	Sep 07, 2022		Soil	S22-Oc0006993	X	X
3	BH21/3.0-3.2	Sep 07, 2022		Soil	S22-Oc0006994	X	X
Test Counts						3	3

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	105			70-130	Pass	
TRH C10-C14	%	79			70-130	Pass	
Naphthalene	%	114			70-130	Pass	
TRH C6-C10	%	103			70-130	Pass	
TRH >C10-C16	%	79			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	106			70-130	Pass	
Toluene	%	103			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	106			70-130	Pass	
o-Xylene	%	104			70-130	Pass	
Xylenes - Total*	%	105			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	91			70-130	Pass	
Acenaphthylene	%	77			70-130	Pass	
Anthracene	%	90			70-130	Pass	
Benz(a)anthracene	%	78			70-130	Pass	
Benzo(a)pyrene	%	82			70-130	Pass	
Benzo(b&j)fluoranthene	%	71			70-130	Pass	
Benzo(g.h.i)perylene	%	86			70-130	Pass	
Benzo(k)fluoranthene	%	84			70-130	Pass	
Chrysene	%	91			70-130	Pass	
Dibenz(a.h)anthracene	%	81			70-130	Pass	
Fluoranthene	%	88			70-130	Pass	
Fluorene	%	86			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	83			70-130	Pass	
Naphthalene	%	78			70-130	Pass	
Phenanthrene	%	89			70-130	Pass	
Pyrene	%	88			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	87			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDD	%	85			70-130	Pass	
4.4'-DDE	%	86			70-130	Pass	
4.4'-DDT	%	98			70-130	Pass	
a-HCH	%	84			70-130	Pass	
Aldrin	%	88			70-130	Pass	
b-HCH	%	92			70-130	Pass	
d-HCH	%	87			70-130	Pass	
Dieldrin	%	82			70-130	Pass	
Endosulfan I	%	85			70-130	Pass	
Endosulfan II	%	97			70-130	Pass	
Endosulfan sulphate	%	75			70-130	Pass	
Endrin	%	93			70-130	Pass	
Endrin aldehyde	%	79			70-130	Pass	
Endrin ketone	%	87			70-130	Pass	
g-HCH (Lindane)	%	92			70-130	Pass	
Heptachlor	%	93			70-130	Pass	
Heptachlor epoxide	%	84			70-130	Pass	
Hexachlorobenzene	%	87			70-130	Pass	
Methoxychlor	%	102			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	105			80-120	Pass	
Cadmium	%	107			80-120	Pass	
Chromium	%	107			80-120	Pass	
Copper	%	110			80-120	Pass	
Lead	%	107			80-120	Pass	
Mercury	%	115			80-120	Pass	
Nickel	%	113			80-120	Pass	
Zinc	%	110			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Oc0006907	CP	%	94			70-130	Pass	
TRH C10-C14	S22-Oc0006907	CP	%	79			70-130	Pass	
Naphthalene	S22-Oc0006907	CP	%	87			70-130	Pass	
TRH C6-C10	S22-Oc0006907	CP	%	92			70-130	Pass	
TRH >C10-C16	S22-Oc0006907	CP	%	81			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Oc0006907	CP	%	100			70-130	Pass	
Toluene	S22-Oc0006907	CP	%	97			70-130	Pass	
Ethylbenzene	S22-Oc0006907	CP	%	94			70-130	Pass	
m&p-Xylenes	S22-Oc0006907	CP	%	95			70-130	Pass	
o-Xylene	S22-Oc0006907	CP	%	95			70-130	Pass	
Xylenes - Total*	S22-Oc0006907	CP	%	95			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Oc0012137	NCP	%	97			70-130	Pass	
Acenaphthylene	S22-Oc0012137	NCP	%	81			70-130	Pass	
Anthracene	S22-Oc0012137	NCP	%	96			70-130	Pass	
Benz(a)anthracene	S22-Oc0012137	NCP	%	75			70-130	Pass	
Benzo(a)pyrene	S22-Oc0012137	NCP	%	86			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Oc0012137	NCP	%	72			70-130	Pass	
Benzo(g.h.i)perylene	S22-Oc0012137	NCP	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(k)fluoranthene	S22-Oc0012137	NCP	%	86			70-130	Pass	
Chrysene	S22-Oc0012137	NCP	%	104			70-130	Pass	
Dibenz(a.h)anthracene	S22-Oc0012137	NCP	%	81			70-130	Pass	
Fluoranthene	S22-Oc0012137	NCP	%	93			70-130	Pass	
Fluorene	S22-Oc0012137	NCP	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Oc0012137	NCP	%	82			70-130	Pass	
Naphthalene	S22-Oc0012137	NCP	%	87			70-130	Pass	
Phenanthrene	S22-Oc0012137	NCP	%	95			70-130	Pass	
Pyrene	S22-Oc0012137	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Oc0012542	NCP	%	90			75-125	Pass	
Cadmium	S22-Oc0012542	NCP	%	98			75-125	Pass	
Chromium	S22-Oc0012542	NCP	%	96			75-125	Pass	
Copper	N22-Oc0002361	NCP	%	112			75-125	Pass	
Lead	N22-Oc0002361	NCP	%	103			75-125	Pass	
Mercury	S22-Oc0012542	NCP	%	104			75-125	Pass	
Nickel	S22-Oc0012542	NCP	%	99			75-125	Pass	
Zinc	N22-Oc0002361	NCP	%	96			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Oc0006936	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Se0067235	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Se0067235	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Se0067235	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Oc0006936	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Oc0006936	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Se0067235	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Se0067235	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Se0067235	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Oc0006936	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Oc0006936	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Oc0006936	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Oc0006936	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Oc0006936	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Oc0006936	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Naphthalene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Oc0012135	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Oc0012135	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Oc0012135	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Se0065876	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Oc0012130	NCP	mg/kg	9.5	9.5	<1	30%	Pass	
Cadmium	S22-Oc0012130	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Oc0012130	NCP	mg/kg	22	23	4.4	30%	Pass	
Copper	S22-Oc0012130	NCP	mg/kg	42	44	5.4	30%	Pass	
Lead	S22-Oc0012130	NCP	mg/kg	28	28	<1	30%	Pass	
Mercury	S22-Oc0012130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Oc0012130	NCP	mg/kg	14	15	3.5	30%	Pass	
Zinc	S22-Oc0012130	NCP	mg/kg	60	61	1.6	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Oc0006993	CP	%	19	20	5.3	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Quinn Raw	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	Geo-Logix P/L
Contact name:	Kiran Baby
Project name:	ADDITIONAL - TERRY HILLS-PRIMARY
Project ID:	ADDITIONAL - 2201064
Turnaround time:	3 Day
Date/Time received	Oct 5, 2022 11:50 AM
Eurofins reference	928993

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 1.8 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Asim Khan on phone : or by email: AsimKhan@eurofins.com

Results will be delivered electronically via email to Kiran Baby - kbaby@geo-logix.com.au.

Note: A copy of these results will also be delivered to the general Geo-Logix P/L email address.

Asim Khan

From: Kiran Baby <kbaby@geo-logix.com.au>
Sent: Wednesday, 5 October 2022 12:45 PM
To: Asim Khan
Subject: RE: Eurofins Sample Receipt Advice - Report 923657 : Site TERRY HILLS-PRIMARY (2201064)

Hi Asim,

Can you run samples **BH7/2.5-2.6 and BH21/3.0-3.2 as well for suite B9 on 3 day TAT**? Apologies for not mentioning this in the trailing email.

This is the complete list

- HA4/0.1-0.4
- BH7/2.5-2.6
- BH21/3.0-3.2

Thanks,

Kiran

From: Asim Khan <AsimKhan@eurofins.com>
Sent: Wednesday, 5 October 2022 11:51 AM
To: Kiran Baby <kbaby@geo-logix.com.au>
Subject: RE: Eurofins Sample Receipt Advice - Report 923657 : Site TERRY HILLS-PRIMARY (2201064)

No worries Kiran. I will forward it to our sample receipt to organise.

Kind regards,

Asim Khan
Analytical Services Manager
Please note my hours are from 9:30 am to 5:30 pm

Eurofins Environment Testing Australia Pty Ltd
Phone: +61 2 9900 8432
Mobile: +61 429 051 456

E-mail: AsimKhan@eurofins.com

Geo-Logix P/L
Bld Q2 Level 3, 2309/4 Daydream St
Warriewood
NSW 2102

Attention: **Kiran Baby**

Report **926115-S-V2**
Project name TERRY HILLS-TRIPLICATES
Project ID 2201064
Received Date Sep 14, 2022

Client Sample ID			**TS1**	**TS2**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S22-Se0032265**	**S22-Se0032266**
Date Sampled			**Sep 07, 2022**	**Sep 07, 2022**
Test/Reference	LOR	Unit		
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	0.2
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	103	102
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	68
TRH C10-C36 (Total)	50	mg/kg	< 50	68
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			TS1	TS2
Sample Matrix			Soil	Soil
Eurofins Sample No.			S22-Se0032265	S22-Se0032266
Date Sampled			Sep 07, 2022	Sep 07, 2022
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	63	72
p-Terphenyl-d14 (surr.)	1	%	146	114
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	0.07
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	0.07
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	73	90
Tetrachloro-m-xylene (surr.)	1	%	83	86
Heavy Metals				
Arsenic	2	mg/kg	< 2	2.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	15	22
Copper	5	mg/kg	5.1	8.6
Lead	5	mg/kg	8.1	9.9
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5
Zinc	5	mg/kg	12	21
% Moisture	1	%	13	7.4

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B9			
BTEX	Melbourne	Sep 16, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons	Melbourne	Sep 16, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Sep 16, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Sep 16, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Sep 16, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Melbourne	Sep 16, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Melbourne	Sep 16, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
Metals M8	Melbourne	Sep 16, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Melbourne	Sep 15, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

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Company Name: Geo-Logix P/L
Address: Bld Q2 Level 3, 2309/4 Daydream St
Warriewood
NSW 2102

Project Name: TERRY HILLS-TRIPLICATES
Project ID: 2201064

Order No.: P05604TP
Report #: 926115
Phone: 02 9979 1722
Fax: 02 9979 1222

Received: Sep 14, 2022 1:25 PM
Due: Oct 3, 2022
Priority: 5 Day
Contact Name: Kiran Baby

Eurofins Analytical Services Manager : Asim Khan

Sample Detail						Moisture Set	Eurofins Suite B9
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	TS1	Sep 07, 2022		Soil	S22-Se0032265	X	X
2	TS2	Sep 07, 2022		Soil	S22-Se0032266	X	X
Test Counts						2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	81			70-130	Pass	
Toluene	%	90			70-130	Pass	
Ethylbenzene	%	86			70-130	Pass	
m&p-Xylenes	%	87			70-130	Pass	
Xylenes - Total*	%	87			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	95			70-130	Pass	
Naphthalene	%	76			70-130	Pass	
TRH C6-C10	%	93			70-130	Pass	
TRH >C10-C16	%	96			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	108			70-130	Pass	
Acenaphthylene	%	106			70-130	Pass	
Anthracene	%	102			70-130	Pass	
Benz(a)anthracene	%	111			70-130	Pass	
Benzo(a)pyrene	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	%	95			70-130	Pass	
Benzo(g.h.i)perylene	%	93			70-130	Pass	
Benzo(k)fluoranthene	%	107			70-130	Pass	
Chrysene	%	108			70-130	Pass	
Dibenz(a.h)anthracene	%	109			70-130	Pass	
Fluoranthene	%	102			70-130	Pass	
Fluorene	%	80			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	101			70-130	Pass	
Naphthalene	%	105			70-130	Pass	
Phenanthrene	%	119			70-130	Pass	
Pyrene	%	100			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	102			70-130	Pass	
4.4'-DDD	%	95			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDE	%	96			70-130	Pass	
4.4'-DDT	%	84			70-130	Pass	
a-HCH	%	109			70-130	Pass	
Aldrin	%	125			70-130	Pass	
b-HCH	%	72			70-130	Pass	
d-HCH	%	128			70-130	Pass	
Dieldrin	%	105			70-130	Pass	
Endosulfan I	%	127			70-130	Pass	
Endosulfan II	%	78			70-130	Pass	
Endosulfan sulphate	%	93			70-130	Pass	
Endrin	%	110			70-130	Pass	
Endrin aldehyde	%	73			70-130	Pass	
Endrin ketone	%	101			70-130	Pass	
g-HCH (Lindane)	%	102			70-130	Pass	
Heptachlor	%	115			70-130	Pass	
Heptachlor epoxide	%	129			70-130	Pass	
Hexachlorobenzene	%	89			70-130	Pass	
Methoxychlor	%	88			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			80-120	Pass	
Cadmium	%	88			80-120	Pass	
Chromium	%	101			80-120	Pass	
Copper	%	98			80-120	Pass	
Lead	%	104			80-120	Pass	
Mercury	%	113			80-120	Pass	
Nickel	%	97			80-120	Pass	
Zinc	%	96			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	M22-Se0035152	NCP	%	92			70-130	Pass	
Toluene	M22-Se0035152	NCP	%	104			70-130	Pass	
Ethylbenzene	M22-Se0035152	NCP	%	93			70-130	Pass	
m&p-Xylenes	M22-Se0035152	NCP	%	92			70-130	Pass	
o-Xylene	M22-Se0035152	NCP	%	91			70-130	Pass	
Xylenes - Total*	M22-Se0035152	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M22-Se0035152	NCP	%	112			70-130	Pass	
TRH C10-C14	M22-Se0042907	NCP	%	113			70-130	Pass	
Naphthalene	M22-Se0035152	NCP	%	76			70-130	Pass	
TRH C6-C10	M22-Se0035152	NCP	%	111			70-130	Pass	
TRH >C10-C16	M22-Se0042907	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M22-Se0036915	NCP	%	97			70-130	Pass	
Acenaphthylene	M22-Se0036915	NCP	%	94			70-130	Pass	
Anthracene	M22-Se0036915	NCP	%	88			70-130	Pass	
Benz(a)anthracene	M22-Se0036915	NCP	%	103			70-130	Pass	
Benzo(a)pyrene	M22-Se0036915	NCP	%	80			70-130	Pass	
Benzo(b&j)fluoranthene	M22-Se0036915	NCP	%	98			70-130	Pass	
Benzo(g.h.i)perylene	M22-Se0036915	NCP	%	83			70-130	Pass	
Benzo(k)fluoranthene	M22-Se0036915	NCP	%	96			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene	M22-Se0036915	NCP	%	98			70-130	Pass	
Dibenz(a.h)anthracene	M22-Se0036915	NCP	%	112			70-130	Pass	
Fluoranthene	M22-Se0036915	NCP	%	97			70-130	Pass	
Fluorene	M22-Se0036915	NCP	%	80			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M22-Se0036915	NCP	%	99			70-130	Pass	
Naphthalene	M22-Se0036915	NCP	%	102			70-130	Pass	
Phenanthrene	M22-Se0036915	NCP	%	106			70-130	Pass	
Pyrene	M22-Se0036915	NCP	%	94			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M22-Se0038087	NCP	%	93			75-125	Pass	
Cadmium	M22-Se0038087	NCP	%	111			75-125	Pass	
Chromium	M22-Se0038087	NCP	%	114			75-125	Pass	
Copper	M22-Se0038087	NCP	%	103			75-125	Pass	
Lead	M22-Se0038087	NCP	%	104			75-125	Pass	
Mercury	M22-Se0038087	NCP	%	98			75-125	Pass	
Nickel	M22-Se0038087	NCP	%	96			75-125	Pass	
Zinc	M22-Se0038087	NCP	%	103			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M22-Se0036820	NCP	%	92			70-130	Pass	
4.4'-DDD	M22-Se0036820	NCP	%	119			70-130	Pass	
4.4'-DDE	M22-Se0036820	NCP	%	127			70-130	Pass	
4.4'-DDT	M22-Se0036820	NCP	%	78			70-130	Pass	
a-HCH	M22-Se0036820	NCP	%	90			70-130	Pass	
Aldrin	M22-Se0036820	NCP	%	84			70-130	Pass	
b-HCH	M22-Se0036820	NCP	%	87			70-130	Pass	
d-HCH	M22-Se0036820	NCP	%	88			70-130	Pass	
Dieldrin	M22-Se0036820	NCP	%	95			70-130	Pass	
Endosulfan I	M22-Se0036820	NCP	%	92			70-130	Pass	
Endosulfan II	M22-Se0036820	NCP	%	94			70-130	Pass	
Endosulfan sulphate	M22-Se0036820	NCP	%	83			70-130	Pass	
Endrin	M22-Se0036820	NCP	%	82			70-130	Pass	
Endrin aldehyde	M22-Se0036820	NCP	%	79			70-130	Pass	
Endrin ketone	M22-Se0036820	NCP	%	73			70-130	Pass	
g-HCH (Lindane)	M22-Se0036820	NCP	%	92			70-130	Pass	
Heptachlor	M22-Se0036820	NCP	%	91			70-130	Pass	
Heptachlor epoxide	M22-Se0036820	NCP	%	99			70-130	Pass	
Hexachlorobenzene	M22-Se0036820	NCP	%	98			70-130	Pass	
Methoxychlor	M22-Se0036820	NCP	%	89			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M22-Se0035156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M22-Se0035156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M22-Se0035156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M22-Se0035156	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M22-Se0035156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	M22-Se0035156	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M22-Se0035156	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M22-Se0034457	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M22-Se0034457	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M22-Se0034457	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M22-Se0035156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M22-Se0035156	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M22-Se0034457	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M22-Se0034457	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M22-Se0034457	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M22-Se0034852	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M22-Se0034852	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M22-Se0034852	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M22-Se0034852	NCP	mg/kg	2.1	1.4	44	30%	Fail	Q15
Benzo(a)pyrene	M22-Se0034852	NCP	mg/kg	2.1	1.5	33	30%	Fail	Q15
Benzo(b&j)fluoranthene	M22-Se0034852	NCP	mg/kg	1.3	0.9	34	30%	Fail	Q15
Benzo(g.h.i)perylene	M22-Se0034852	NCP	mg/kg	1.1	0.9	21	30%	Pass	
Benzo(k)fluoranthene	M22-Se0034852	NCP	mg/kg	1.8	1.2	39	30%	Fail	Q15
Chrysene	M22-Se0034852	NCP	mg/kg	1.9	1.3	35	30%	Fail	Q15
Dibenz(a.h)anthracene	M22-Se0034852	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M22-Se0034852	NCP	mg/kg	4.4	2.1	70	30%	Fail	Q15
Fluorene	M22-Se0034852	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M22-Se0034852	NCP	mg/kg	1.1	1.0	18	30%	Pass	
Naphthalene	M22-Se0034852	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M22-Se0034852	NCP	mg/kg	1.9	0.6	100	30%	Fail	Q15
Pyrene	M22-Se0034852	NCP	mg/kg	4.6	2.1	75	30%	Fail	Q15
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M22-Se0038582	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M22-Se0038582	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M22-Se0034852	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M22-Se0038087	NCP	mg/kg	2.1	2.1	1.4	30%	Pass	
Cadmium	M22-Se0038087	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M22-Se0038087	NCP	mg/kg	33	33	<1	30%	Pass	
Copper	M22-Se0038087	NCP	mg/kg	11	11	1.4	30%	Pass	
Lead	M22-Se0038087	NCP	mg/kg	11	11	1.3	30%	Pass	
Mercury	M22-Se0038087	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M22-Se0038087	NCP	mg/kg	32	32	<1	30%	Pass	
Zinc	M22-Se0038087	NCP	mg/kg	23	26	11	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M22-Se0032636	NCP	%	25	25	1.2	30%	Pass	

Comments

This report has been revised (V2) to amend Project Name as per client request.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Asim Khan	Analytical Services Manager
Edward Lee	Senior Analyst-Organic
Emily Rosenberg	Senior Analyst-Metal
Joseph Edouard	Senior Analyst-Organic
Mary Makarios	Senior Analyst-Sample Properties
Vivian Wang	Senior Analyst-Volatile

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

eurofins | Environment Testing

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Eurofins Environment Testing Australia Pty Ltd

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Auckland 1061	Christchurch 7675
Tel: +64 9 526 45 51	Tel: 0800 856 450
IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	Geo-Logix P/L
Contact name:	Kiran Baby
Project name:	TERRY HILLS-TRIPLICATES
Project ID:	2201064
Turnaround time:	5 Day
Date/Time received	Sep 14, 2022 1:25 PM
Eurofins reference	926115

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 1.8 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✗	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Asim Khan on phone : or by email: AsimKhan@eurofins.com

Results will be delivered electronically via email to Kiran Baby - kbaby@geo-logix.com.au.

Note: A copy of these results will also be delivered to the general Geo-Logix P/L email address.

Geo-Logix Pty Ltd
Building Q2, Level 3
2309/4 Daydream St
Warriewood, NSW 2102
ABN: 86 116 892 936
P: (02) 9979 1722
F: (02) 9979 1222

CHAIN OF CUSTODY

Page 1 of 1

Project Manager: Kiran Baby

Contact email: kbaby@geo-logix.com.au, tpolassery@geo-logix.com.au

Project Name: Terry Hills - Pharmacy

Project Number: 2201064 **Date Submitted:** 14/09

Purchase Order No: PO5604TP

Quote Reference:

Send Invoice to: accounts@geo-logix.com.au

TAT required: Standard.

ANALYSIS REQUIRED

Lab ID	Sample ID	Date	Matrix: soil	Matrix: water	Matrix: air	Matrix: paint, filters	Matrix: other	Comments	COMPOSITE	TRH - C6 - C10	TRH - C10 - C40	VOCs	BTEXN	PAHs	PCBs	OCPs	OPPs	Phenols	Metals - M8	Metals - Lead	Metals - Specify **	TCLP	Asbestos (ID only)	Asbestos (WA DOH)	Foreign Materials	Conductivity (EC)	pH			Hold	SUITE
✓	TS1	7/9/22	X					Please send it to		X	X		X	X		X			X												B9
✓	TS2	9/9/22	X					Eurofins Melbourne lab		X	X		X	X		X			X												B9

Eurofins MGT Suite Codes

B1	TRH/BTEXN
B1A	TRH/MAH
B2	TRH/BTEXN/Pb
B2A	TRH/MAH/Pb
B3	PAH/Phenols
B4	TRH/BTEXN/PAH
B4A	TRH/BTEXN/PAH/Phenols
B5	TRH/BTEXN/M7
B6	TRH/BTEXN/M8
B7	TRH/BTEXN/PAH/M8
B7A	TRH/BTEXN/PAH/Phenols/M8
B8	TRH/VOC/PAH/M8
B9	TRH/BTEXN/PAH/OCP/M8
B10	TRH/BTEXN/PAH/OCP/OPP/M8
B11	Na/K/Ca/Mg/Cl/SO_4/CO_3/HCO_3/NH_3/NO_3
B11A	B11/Alkalinity
B11B	B11/EC/TDS
B12	TRH/BTEXN/Oxygenates/Ethanol
B12A	TRH/BTEXN/Oxygenates
B13	OCP/PCB
B14	OCP/OPP
B15	OCP/OPP/PCB
B16	TDS/SO_4/CH_4/Alk/BOD/COD/HPC/CUB
B17	SO_4/NO_3/Fe++/HPC/CUB
B18	Cl-/SO_4/pH
B19	N/P/K
B20	CEC/%ESP/Ca/Ma/Na/K

Metals(circle)** As, Cd, Cr, Cu, Ni, Pb, Zn, Hg, Cr^{6+}, Cr^{3+}, Fe^{2+}, Fe^{3+}, Be, B, Al, V, Mn, Fe, Co, Se, Sr, Sn, Mo, Ag, Ba, Tl, Bi, Sb

Chain of Custody

Relinquished by: TP Date/Time: 14/9/22 Signature: [illegible] Received by: [illegible] Date/Time: Signature: [illegible]

#923657

Asim Khan

From: Kiran Baby <kbaby@geo-logix.com.au>
Sent: Monday, 26 September 2022 10:53 AM
To: Asim Khan
Cc: Thara Polassery
Subject: RE: Eurofins Test Results - Report 926115 : Site TERRY HILLS-PRIMARY (2201064)

Hi Asim,

Can you change the report name to “TERRY HILLS-TRIPLICATES”?

Thanks,

Kiran

From: AsimKhan@eurofins.com <AsimKhan@eurofins.com>
Sent: Monday, 26 September 2022 10:48 AM
To: Kiran Baby <kbaby@geo-logix.com.au>
Cc: Thara Polassery <tpolassery@geo-logix.com.au>
Subject: Eurofins Test Results - Report 926115 : Site TERRY HILLS-PRIMARY (2201064)

Please find attached results for your project in the subject header.

Kind regards,

Asim Khan
Analytical Services Manager
Please note my hours are from 9:30 am to 5:30 pm

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