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Due Diligence Environmental Site Assessment

40 Myoora Road, Terrey Hills NSW

Prepared for Isaac Property

21 January 2022

Version 1

reditusconsulting.com

Due Diligence Environmental Site Assessment
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Prepared for Isaac Property

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This report has been prepared for Isaac Property in accordance with the terms and conditions of appointment for proposal P21385 dated 1 December 2021.

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Executive Summary

Reditus Consulting Pty Ltd (Reditus) was engaged to complete a Due Diligence Environmental Site Assessment (ESA) by Isaac Property (the client). The purpose of the ESA was to facilitate the property acquisition of the proposed mixed use commercial sub-division site located at 40 Myoora Road, Terrey Hills NSW (the site).The objective of the due diligence investigation was to adequately characterise the site for potential contamination and provide advice on whether the site was suitable for the proposed future land use.

The site covers an approximate land area of 1.5 hectares (ha)and was historically used for agricultural purposes including operation of market gardens. Surrounding land uses include light industrial, rural, low density residential and open space.

Reditus understands that the client is currently partaking in negotiations for the acquisition of the site. Following acquisition, the client intends to redevelop the site for use as a multi-purpose area comprising of various potential future land uses, including a fast-food restaurant, gym, garden centre and a childcare centre. Most of the proposed redevelopment will be covered by hardstand areas, with some small dedicated landscaped zones.

To facilitate the proposed acquisition of the site, Reditus completed a Due Diligence and ESA investigation inclusive of a desktop assessment and intrusive site investigation.

The objectives of the investigation were achieved through the completion of a soil assessment to identify issues, concerns or environmental risks and liabilities associated with the present and historical uses of the site. The investigation also assessed whether there was potential for soil and/or groundwater contamination associated with historical activities both on and off-site. Analytical results from the investigation were compared against land use criteria applicable for low-density residential properties due to the most sensitive receptor within the proposed development being a childcare centre.

During the investigation, the following results were observed:

- Fill of unknown origin was found to extend between 0.15 and 1.3 metres below ground level (mbgl).
- No stains, odours, or other visible signs of contamination (with exception of asbestos containing materials (ACM)) were noted on the site. No photoionisation detector (PID) readings exceeded 0.5 parts per million (ppm) above the background concentration.
- Chemical contaminants of potential concern (COPC) in soil were reported below the adopted site assessment criteria in soil samples analysed with exception of a minor benzo(a)pyrene (1.3 mg/kg) exceedance of the ecological screening level (ESL) criteria (0.7 mg/kg) in TP17, however considered not to pose an unacceptable risk to future ecological receptors with respect to the proposed development.
- Bonded ACM fragments were observed during 10L field screening of soils in TP02 and TP04 at depths of up to 0.3mbgl within fill materials at concentrations

of 0.0024 %w/w and 0.004 %w/w, respectively, below the NEPM (2013) HSL-A criteria of 0.01 %w/w.

- Fibrous Asbestos (FA) in the form of Amosite asbestos containing loose fibre bundles was positively identified by the laboratory in sample TP15 (0.1 mbgl) at a concentration below the limit of reporting (0.001%w/w).
- An ACM (>7mm) fragment containing Chrysotile and Amosite asbestos was positively identified by the laboratory in the 500mL quantification sample collected at TP19 at 0.1 mbgl.
- Asbestos was positively identified by the laboratory in material samples PACM-Eaves, PACM-UH and PACM-Shed, collected from the residential building eaves, sub-floor space soil surface and storage shed/building respectively.

The results of the assessment indicate asbestos in soil contamination from ACM (>7mm) at TP02, TP04 and TP19; and FA at TP15 (albeit at concentrations below the health screening level (HSL-A) criteria and/or limit of reporting) is present within the top 10cm of the soil profile and thus fails the NEPM (2013) HSL-A criteria for 'No visible asbestos in the top 10cm'. The identified contamination is considered to present an unacceptable risk to potential on-site human receptors.

Based on the findings of the investigation and reported asbestos in soil contamination in the form of ACM (>7mm) and FA within the top 10cm of the soil profile, Reditus considers that **the site is currently not suitable for the proposed development.**

Based on the findings of the DD/ESA, **the site can be made suitable for the proposed development**, subject to the preparation and implementation of a Remedial Action Plan (RAP) to address the identified asbestos in soil contamination. The RAP should be prepared by a certified environmental practitioner – site contamination specialist in accordance with the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated sites

The following recommendations are provided based on the outcomes of the assessment:

- Preparation and implementation of a RAP to address the identified asbestos in soil contamination.
- Preparation of an interim site management plan (ISMP) to appropriately manage human health risks posed by the identified asbestos in soil contamination on site prior to site remediation works.
- Development of an Asbestos Management Plan (AMP) and asbestos register for the site to comply with WHS Regulation (2017) when the site becomes a 'workplace' (i.e. during any excavation and construction).
- Completion of a Hazardous Materials Survey of on site buildings before commencement of demolition works.
- Classification of all materials requiring removal from the site for the proposed development in accordance with NSW EPA (2014) Waste Classification Guidelines.

1. Introduction

Reditus Consulting Pty Ltd (Reditus) was engaged by Isaac Property (the client) to complete a Due Diligence Environmental Site Assessment (DD/ESA). The purpose of the ESA is to support the property acquisition of the commercial sub-division site located at 40 Myoora Road, Terrey Hills NSW 2084 (the site).

The location of the site is provided in **Figure 1, Appendix A**.

1.1. Background

The site is situated on Lot 180 of Deposited Plan (DP)752017 and covers an approximate area of 1.5 hectares (ha). Historical records indicate that the site has been for agricultural purposes including operation of market gardens. It is understood the Client is currently undergoing negotiations to facilitate the acquisition of the site. Following acquisition, the site is intended to be developed for use as a multi-purpose area comprising of various potential future land uses, including a fast-food restaurant, gym, garden centre and a childcare centre. Most of the proposed redevelopment will be covered by hardstand areas, with some small dedicated landscaped zones.

Surrounding land uses relevant to the site include light industrial, commercial businesses, a joint primary & secondary school, a church, swim school facility, public open space and NSW Rural Fire Service, Marine Rescue NSW and NSW State Emergency Services (SES) stations.

1.2. Objectives

The overarching objective of the DD/ESA was to assess the presence, distribution and extent of Contaminants of Potential Concern (CoPC) at the site to support an assessment of the suitability of the site for the proposed redevelopment. The specific objectives of the investigation are summarised as follows:

- Conduct a desktop investigation to identify and evaluate potential contamination sources based on the current and historical land uses of the site and surrounding areas to the site.
- Assess the nature, extent and distribution of CoPC in soil.
- Assess whether any identified contamination presents an unacceptable risk of exposure to human health and/or the environment, in the context of the proposed redevelopment.
- Provide advice on whether the land is currently suitable, from a contamination perspective, for the proposed redevelopment or if it could be made suitable following further investigation and/or remediation.

1.3. Scope of Works

The following scope of works was completed by Reditus to achieve the investigation objectives.

1.3.1. Desktop Assessment

- Preparation of Safe Work Method Statements (SWMS) to cover the site inspection.
- A site inspection to make observations regarding the property setting, site surface, visual signs of potential contamination and/or potential contaminant sources.
- A desktop evaluation of surrounding land uses to identify any neighbouring activities which may have affected or present a potential risk to the environmental quality of the site.
- A review of available zoning plans, online databases and relevant planning documentation to assess potentially contaminating activities that may have occurred on the site.
- An evaluation of aerial photographs to assist in the identification of historical land uses and conditions on and adjacent to the site.
- A review of the environmental setting with regards to geology, topography, hydrology and hydrogeology.
- Identification of areas of environmental concern (AEC) (if any) to target during the intrusive ESA.

1.3.2. Environmental Site Assessment (ESA) – Assessment of Soil

- Project preliminaries, including the preparation of all Work, Health and Safety (WHS) documentation, a review of available services plans, a dial-before-you-dig search and underground service location.
- Excavation of twenty-five (25) test pits across the site using an excavator/backhoe, to a maximum depth of 1.9 m below ground level (mbgl).
- Excavation of eight (8) shallow 'step-out' test pits to a maximum depth of 0.3 mbgl surrounding test pits TP02 and TP04 in which asbestos was visually observed.
- Collection of soil samples from each test pit at regular intervals, changes in geology or at zones of gross contamination, nominally from near surface (0.1-0.3 m bgl), at 0.5m bgl and every meter thereafter.
- Each sample location was logged in general accordance with the Unified Soil Classification System (USCS). Part of each soil sample collected was placed into a snap lock plastic bag and screened with a Photo-ionisation Detector (PID) to detect the potential presence of volatile organic compounds (VOCs).
- Analysis of selected soil samples from each test pit, nominally from the fill/near surface material and the natural material across the site. The selected primary soil samples were submitted to a NATA accredited laboratory for analysis of:
    - Total Recoverable Hydrocarbons (C_6-C_{40}) (TRH).
    - Benzene, Toluene, Ethylbenzene, Xylene (BTEX).

- Polycyclic Aromatic Hydrocarbons (PAHs).
- Eight priority heavy metals (including arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), nickel (Ni) and zinc (Zn).
- Organochlorine/organophosphate pesticides (OCP/OPPs) and Polychlorinated Biphenyls (PCBs) – selected samples.
- Asbestos quantification in soil (NEPM %w/w) – surface soils only.
- Per- and polyfluoroalkyl substances (PFAS) – selected samples.

- In addition, Quality Assurance/Quality Control (QAQC) samples were also submitted to NATA accredited laboratory Eurofins, consisting of duplicate and triplicate sets and soil trip blank & spike.

1.3.3. Reporting

Preparation of a DD/ESA report (this document) detailing the findings of the investigation in general accordance with the NSW EPA (2020) *Contaminated Land Guidelines - Consultants Reporting on Contaminated Land*, NEPC (2013) *National Environmental Protection (Assessment of Site Contamination) Measure (NEPM)* and other relevant NSW EPA Guidelines.

2. Site Identification

The location of the site is provided in **Figure 1**, **Appendix A**, and the site layout is shown in **Figure 2**, **Appendix A.** A summary of the site identification details is provided in Table 2-1 below.

Table 2-1: Site Summary Details

Site Characteristics	Details
Street Address	40 Myoora Road, Terrey Hills, NSW 2084
Lot & Deposited Plan	Lot 180 of DP752017
Local Government Area	Northern Beaches Council
Zoning	RU4 – Rural Small Holdings
Site Coordinates to the approximate centre of the site (Geographic)	Easting: -33.691126 Northing: 151.220864
Site Area	Approximately 1.5 ha

2.1. Site Description

The site is situated between Myoora Road and Mona Vale Road and is currently unoccupied. The site is bound by a light industrial properties to the south and north and the site's topography slopes from the south-eastern to the north-western boundary. The site is predominantly covered in grass and small vegetation, largely overgrown and unkept with occasional anthropogenic materials residing on the surface. A residential dwelling and large shed are located in the south-eastern portion of the site and several storage containers, sheds and storage areas in the north-western portion including several small stockpiles of construction and demolition materials and debris.

During the site inspection conducted on 16th December 2021, visible signs of contamination were observed on the site comprised asbestos containing fibre cement sheeting debris on the surface in two (2) locations in the central-northern portion of the site. Several storage sheds in the north-western portion of the site were observed to contain small quantities of gas cannisters (<20L) and various oils (<20L), including agricultural inoperative machinery in various states of disrepair.

2.2. Surrounding Land Uses

The land uses which currently surround the site are described as follows:

- North: A light industrial/rural property adjacent the northern site boundary, followed by Terrey Hills Swim School, German International School, St Anthony in the Fields Catholic Church and grounds, wedding reception hospitality facility with mixed land uses including vacant land and rural properties beyond.
- South: A light industrial properties including a truck mechanic, followed by Terrey Hills Tavern, rural properties and landscaping supply store beyond.
- West: Myoora Road, rural properties with Kierans Creek and bushland beyond.
- East: Mona Vale Road, followed by NSW Rural Fire Service, Marine Rescue NSW and NSW SES stations, public recreation and open space land with bushland and Kimbriki Resource Recovery Centre beyond.

2.3. Sensitive Environments

The nearest sensitive environments are as follows:

- St Anthony in the Fields Catholic Church approximately 142m north of the site.
- Marine Rescue NSW Station approximately 86m south-east of the site.
- NSW SES Warringah Pittwater Unit station approximately 114m south-east of the site.
- NSW Rural Fire Service Station approximately 90m east of the site.
- German International School Sydney approximately 150m north of the site.
- Terrey Hills Swim Club approximately 102m north-west of the site.
- Kierans Creek approximately 350m west of the site.

2.4. Proposed Land Use

The site is intended to be developed for use as a multi-purpose area comprising of various potential future land uses, including a fast-food restaurant, gym, garden centre and a childcare centre.

The majority of the proposed redevelopment will be covered by hardstand areas, with some small dedicated landscaped areas.

3. Previous Investigations

At the time of issuing this report, Reditus had not been provided with any previous reports or data relevant to the site.

4. Site Setting and Surrounding Environment

The following information has been summarised using information provided within the Land Insight and Resources Report (LIR) provided in **Appendix F**, as well as observations made during the current investigation.

4.1. Topography and Hydrology

The site has an elevation of approximately 188-173 m above the Australian Height Datum (mAHD). The on-site topography is characterised by a moderate grade towards the north-western site boundary. Surface water run-off is likely to follow this topography and enter the local stormwater drainage network before discharging to Kierans Creek approximately 350m west of the site.

The LIR report indicates regional topography is characterised by a moderate grade towards the west of the site, increasing in grade in bushland surrounding Kierans Creek. The site is positioned along a ridge line with the regional topography to the east characterised by steep grades to the east. Within the 500 m search buffer, relief mostly ranges between 140-200 mAHD, with the highest elevations located to the north of the site.

Kierans Creek forms part of a regional drainage and catchment system which eventually discharges to Cowan Creek approximately 4.8km west of the site. Cowan Creek is a tributary of the Hawkesbury River.

4.2. Regional Geology and Soils

In reference to the Sydney 1:100,000 Geological Sheet, geological conditions on site comprise Middle Triassic Hawkesbury Sandstone. The unit is described as medium to coarse grained quartz sandstone with minor shale and laminite lenses.

The site lies within the Somersby Residual soil landscape, characterised by gently undulating to rolling rises on deeply weather Hawkesbury Sandstone plateau. Local relief to 40m with slopes of 15 to <60%. Soils generally comprise moderately deep to deep (100-300cm), Yellow Earths and Earthy Sands on crests and slopes, with Grey Earths in poorly drained areas and leached or siliceous sands along drainage lines.

Regional soils are characterised by localised permanent and seasonal waterlogging, moderate erosion hazard, very low soil fertility and high permeability.

4.2.1. Local Soils and Geology

The soils identified during intrusive works were described as follows:

- **Fill:** Fill at depths ranging between 0.15 – 1.3 m. Fill materials were characterised by predominantly fine to medium grained silty sand and clayey sand.
- **Natural:** Natural material was encountered at depths ranging between 0.15 and 1.3 m. The predominant material was fine to medium grained clayey gravelly sand and clayey sand with inclusions of sub rounded gravels underlain by weathered Hawkesbury Sandstone.

Detailed test pit logs are provided in **Appendix C**, while sampling locations are provided in **Figure 2, Appendix A**.

4.3. Regional Hydrogeology

The LIR report identifies thirty-eight (38) groundwater bores within 2 km of the subject site. The nearest bore (GW107392) is 70 m north-west of the site and is used for household purposes. The following is a breakdown of the bore uses within 2 km of the subject site:

- Irrigated Agriculture – 3 bores.
- Water Supply – 10 bores.
- Household – 21 bores.
- Recreation – 2 bores.
- Drainage – 1 bore.
- Unknown or no recorded use – 1 bore.

The hydrogeologic units within 500 m of the site include late Permian/Triassic sediments (porous media – consolidated). Aquifers within the region are typically described as porous, extensive and low to moderate productivity.

The site is not identified as being within a drinking water catchment, groundwater vulnerability and exclusion zone or having groundwater dependant ecosystems.

The site is however located within the Hawkesbury River Underground Petroleum Storage System (UPSS) Environmentally Sensitive Zone.

4.4. Acid Sulfate Soils

Following a review of information contained within the National Acid Sulfate Soils Atlas, the site has been identified as being located within zone Cq(p4) ASS in inland lakes, waterways, wetlands and riparian zones. There is an extremely low probability of ASS occurring in the region, as such further investigation of potential ASS was not deemed necessary.

4.5. Salinity

The Western Sydney Hydrogeological Landscapes identifies the salinity hazard on site as being very low. As such further investigation of potential salinity hazards on site was not deemed necessary.

5. Historical Site Records

5.1. Historical Aerial Photography

A review of selected and available historical aerial imagery relevant to the site was undertaken using images sourced from the LIR report. A summary of observations is provided in Table 5-1. A copy of aerial photographs reviewed as part of this investigation is provided within the LIR report in **Appendix F**.

Table 5-1: Summary of Aerial Photography Review

Date	Site Observations	Surrounding Land Use Observations
1947	The site appears to be located on agricultural land used as a market garden and production of crops. A single residential dwelling and several ancillary structures/sheds are located in the eastern portion of the site.	The setting of the immediate surrounding area appears be predominantly cleared pastural and agricultural land with extensive bushland to the west and east.
1961	Ancillary structures/sheds in the eastern portion of the site have been demolished and replaced with a single rectangular structure. The remainder of the site appears largely unchanged.	The surrounding land remains relatively unchanged with exception of clearing and potential sandstone quarrying of portions of bushland to the east of Mona Vale Road.
1971	The residential dwelling in the eastern portion of the site has been demolished and a new residential dwelling constructed adjacent the location of the former. The remainder of the site remains largely unchanged.	The surrounding land remains relatively unchanged with exception of further clearing and quarrying of bushland to the east of Mona Vale Road.
1975	The site remains largely unchanged.	The surrounding land remains relatively unchanged except for low density residential and rural development to the north-west and north of the site.
1978	The site remains largely unchanged.	The surrounding land remains relatively unchanged.
1983	The site remains largely unchanged.	The surrounding land remains relatively unchanged. Quarrying activities appear to have ceased to the east of the site.

Date	Site Observations	Surrounding Land Use Observations
1986	The site remains largely unchanged.	The surrounding land remains largely unchanged except for further clearing and low density and rural redevelopment to the west and north-west of the site. The RFS, SES and Marine Rescue Station buildings have been constructed to the south-east of the site.
1991	The site remains largely unchanged.	The surrounding land remains largely unchanged.
1994	The north-western portion of the site is used for storage of materials, parts, machinery and vehicles and several small sheds and storage areas. The remainder of the site remains largely unchanged.	The property adjacent the southern boundary has been redeveloped for light industrial purposes, representing the current configuration. Light industrial and commercial redevelopment has also occurred at properties to the north and south of the site.
1996	The site remains largely unchanged.	The surrounding land remains largely unchanged.
2004	The equipment and material storage area in the north-western portion of the site has expanded. The storage shed/building in the south-eastern portion of the site has been extended and the materials appear to be stored within a cleared area adjacent Mona Vale Road.	The surrounding land remains largely unchanged.
2007	The site remains relatively unchanged.	The surrounding land remains largely unchanged.
2009	Small sheds, storage areas and materials appear to have been cleared from the north-western and south-eastern portions of the site.	The surrounding land remains largely unchanged.
2012	The site remains relatively unchanged with exception of a shed constructed in the north-western portion of the site. Market garden activities on site appear to have greatly reduced.	The surrounding land remains largely unchanged.

Date	Site Observations	Surrounding Land Use Observations
2015	The site remains relatively unchanged. Grass cover has replaced areas previously used as market gardens and the site has become somewhat overgrown.	The surrounding land remains largely unchanged.
2018	The site remains relatively unchanged.	The surrounding land remains largely unchanged.
2021	The site remains relatively unchanged with exception of demolition of part of the storage building/shed in the south-eastern portion of the site.	The surrounding land remains relatively unchanged.

The historical aerial imagery review indicates that the surrounding area was developed gradually throughout the mid-to-late 20th century from rural pastural and agricultural land use into a mixed-use comprising predominantly low-density residential properties and commercial/industrial premises. From review of the aerial photos, the site has been used predominantly for agricultural purposes since circa 1947, including operation of market gardens and storage of associated plant, machinery and materials. Several ancillary structures and storage sheds/buildings have been demolished and constructed during the period. The on-site land use has however remained largely unchanged to date.

5.2. Historical Land Title Deed Search/ Council Planning Certificate

A review of selected and available title deeds relevant to the site was undertaken using a historical land title deed search from the LIR report. A summary of this search is provided in Table 5-2. A copy of the title search reviewed as part of this investigation is provided in **Appendix G**.

Table 5-2: Summary of Title Deeds

Date of Acquisition	Registered Proprietor(s) & Occupations where available
20.04.1881	Rail Reserve No.63
27.11.1931	Richard Shinfield
25.11.1947	Arthur Rule Peterson
03.08.1954	Norman Leslie Harris (Mechanic) (& his deceased estate)

17.09.1959	George William England (Poultry Farmer), Mavis Jane England (Married Woman)
26.09.1985	Barry George England, Antonetta Johanna England
10.01.1991	Philip James Johnston
08.04.2019	Terrey Hills No.2 Pty Ltd (current proprietor)

Based on the title search and historical aerial photography it is evident that the site has been used as agricultural land since relinquishment/sale of the site by the Rail Reserve in 1931. Since then, the site has been owned by various owners, notable of which includes a mechanic from 1954 to 1959, however there is no visual evidence to suggest the site was used for mechanical repair or maintenance purposes during this period.

5.3. Section 10.7 Planning Certificate

A copy of the planning certificate issued for the site under Section 10.7 of the Environmental Planning and Assessment Act 1979 was reviewed. The certificate indicated that, within the meaning of the Contaminated Land Management Act 1997, the site was not:

- Significantly contaminated land.
- Subject to a management order.
- The subject of an approved voluntary management proposal.
- Subject to an ongoing maintenance order.
- The subject of a site audit statement.

A copy of the Planning Certificate is provided in **Appendix G**.

5.4. Contaminated Land Records

There are no records listed on the NSW EPA contaminated land record relating to a notice under the Contaminated Land Management Act 1997 (CLM Act) for the site or within 1 km of the site. The LIR Report in **Appendix F** provides a summary of the contaminated land records within 1 km of the site.

5.5. SafeWork NSW Dangerous Goods Records

A SafeWork NSW dangerous goods search was not performed for the site as part of the assessment. The results of the desktop investigation and observations made during the site inspection identified the potential for dangerous goods to have been historically stored on site as very low.

5.6. Potential Contaminating Processes

5.6.1. Past Industrial Processes

Following a review of the LIR report provided in **Appendix F,** along with notes made during the site inspection conducted by Reditus on 16th December 2021, there is no evidence of historical or current industrial processes on the site.

5.6.2. Manufacturing Processes

The LIR report provided in **Appendix F,** along with notes made during the site inspection conducted by Reditus on 16th December 2021, indicated that manufacturing processes were unlikely to have occurred at the subject site.

5.6.3. Hazardous Materials

Observations and material sampling made during the assessment conducted by Reditus on 16th December 2021 suggested that hazardous building materials are present within on-site structures and within shallow soils.

5.6.4. Storage Tanks

Field notes made during the site inspection conducted by Reditus on 16th December 2021 suggested that underground storage tanks are unlikely to be present on site.

5.6.5. Discharges to Land, Water and Air

As outlined in *5.6.1 Past Industrial Processes* and *5.6.2 Manufacturing Processes*, there is no evidence of past industrial or manufacturing processes. As such, discharges to land, water and air are not deemed to pose an unacceptable risk.

5.6.6. Previous Investigations

No previous environmental investigations for the site were provided.

5.6.7. Visible Signs of Contamination

Visible signs of contamination observed on site during the assessment performed by Reditus on 16th December 2021 included asbestos containing fibre cement sheeting debris on the soil surface within the sub-floor space of the residential dwelling and in two (2) test pits within shallow (<0.3m depth) fill in the centre of the site.

5.6.8. Presence of Drums and Wastes

Field notes made during the site inspection conducted by Reditus on 16th December 2021 indicated the presence of an empty intermediate bulk container (IBC), several small gas cannisters (<20L) and oil containers (<20L) and several small stockpiles of

construction and demolition materials and debris located in the storage area in the north-western portion of the site.

5.6.9. Fill Material

Review of historical aerial photographs of the site do not indicate evidence of large filling activities on the site.

During intrusive works, fill material was observed in all boreholes ranging from 0.15 – 1.3 m in depth. Fill material was deepest in the north-west of the site and shallowest in the south-east of the site.

5.6.10. Odours

There were no olfactory indicators of contamination noted during the site walkover performed by Reditus on 16th December 2021.

5.6.11. Historical Landfills

Following a review of the LIR report provided in **Appendix F,** the Kimbriki Resource Recovery Centre (currently in operation) was identified 415m south-east of the site. The site is described as being established as a landfill site in 1974 prior to commencing of resource recovery operations in 1989-90. The landfill gas collection system installed on site in 2013 currently extracts approximately 490 cubic metres of landfill gas per hour.

The landfill site is not considered to pose an unacceptable risk to current or future on-site receptors due to the physical distance of the site from the former landfill and position hydraulically down-gradient of the site.

5.6.12. Off-Site Potentially Contaminating Activities

Following a review of the LIR report provided in **Appendix F,** the following notable potentially contaminating activities were identified within 500 m of the site:

- All Truck Mechanic, 38 Myoora Road, Terrey Hills (operational) – located 40m south of the site.
- DHaRCO Sportwear manufacturer (operational) – located 30m south of the site.
- Warringah Fire Control Centre, 1A Thompson Drive Gate 4, Kamber Road, Terrey Hills, NSW (current) – located 90m east of the site.
- Warringah Headquarters Rural Fire Brigade, 1A Kamber Road, Terrey Hills, NSW (current) – located 132m south-east of the site.

Review of notable potential off-site contaminating activities provided in the LIR report together site observations and aerial imagery suggest the sportwear manufacturer located 30m south of the site operates predominantly as a storage and distribution warehouse and it is considered unlikely textile manufacturing is conducted on the site.

The truck mechanic, fire control centre and RFS headquarters are considered to present a potential off-site contamination risk.

5.7. Regulatory Records and Desktop Investigation Results

A summary of the desktop investigation results, and review of regulatory records is provided in Table 5-3.

Table 5-3: Summary of Regulatory Records and Desktop Investigation Results

Record	Detail
NSW EPA Register of Contaminated Sites	The NSW EPA does not hold records of a notification of a contaminated site under *Environment Protection Act (1997)* for the site.
NSW EPA Public Registers	A search of the NSW EPA Public Registers did not identify any license or notices that have been issued to the site under the Protection of the Environment (Operations) Act 1997.
National Pollutant Inventory Map	The National Pollutant Inventory (NPI) identified one facility within 2 km of the site. ▪ Dematic Pty Ltd, Structural Steel Fabricating, 24 Narabang Way – 1,848 m south of the site. Given the proximity and location hydraulically down gradient of the site, the NPI sites is considered to pose a low risk of potential contamination.
SafeWorkNSW Dangerous Goods Records	A SafeWork NSW dangerous goods search was not performed for the site as part of the assessment. The results of the desktop investigation and observations made during the site inspection identified the potential for dangerous goods to have been historically stored on site as very low.
Contaminated Lands Records	There are no contaminated land records listed on the NSW EPA records list relating to a notice under the Contaminated Land Management Act 1997 (CLM Act) for the site or within 1km of the site.

5.8. PFAS Assessment

Per- and polyfluoroalkyl substances (PFAS) are a complex group of >4,700 synthetically produced organic compounds. PFAS are highly effective surface-active agents in high temperature environments and are resistant to water and oils. These unique physico-chemical characteristics account for their widespread use in Aqueous Film Forming Foams (AFFF) and a wide range of household and industrial products.

The potential risk to the site presented by PFAS has been evaluated in general accordance with Tables B1 and B2 in Appendix B PFAS National Environmental

Management Plan (NEMP) Version 2.0 following a review of historical site aerial photographs and observations made during the site walkover. A summary of the potential risk to the Site presented by PFAS is provided in Table 5-4.

Table 5-4: PFAS Screening Assessment

Item	Probability	Detail
Has fire training occurred on-site?	Low	It is unlikely that firefighting training has occurred at the site.
Is an airport or fire station located within close proximity to the Site?	High	The site is located within close proximity (<100m) to rural fire station.
Have fuel fires ever occurred on-site?	Low	No evidence of fuel fires occurring on site.
Have PFAS been manufactured at the Site, or stored on-site?	Low	The site has no evidence of any manufacturing or storage of PFAS as per a review of aerial imagery and a site walkover.

The outcomes of the PFAS Assessment summarised in Table 5-4 above indicates there is low potential for the site to be impacted by PFAS generated by on-site activities and high potential for the site to be impacted by PFAS generated by off-site activities, as such PFAS has been assessed as part of this investigation.

6. Preliminary Conceptual Site Model

The following preliminary conceptual site model (CSM) has been prepared based on the information outlined in Sections 2 to 5 of this report. The CSM identifies complete and potential pathways between the known or potential source(s) and the receptor(s).

It allows for determination of potential Areas of Environment Concern (AEC) which require further investigation to characterise the sites contamination status.

6.1. Potential Contamination Sources

Potential sources of contamination at the site and the associated contaminants of potential concern (CoPC) are listed in Table 6-1 below.

Table 6-1: Potential Contaminant Sources

Source	Evidence/Data Gap	COPC
Fill Materials Importation of fill material of unknown origin and demolition of historical structures. ACM fragments were identified in fill materials on site.	Aerial imagery indicates potential historical demolition of structures on site and the site inspection identified hazardous building materials within and adjacent on-site buildings. Potential for asbestos, ash, slag, general waste, industrial waste, construction waste, demolition waste and pesticides for vermin and weed control. Potential leaching of contaminants within fill.	**Soil** Heavy metals, TRH, BTEX, PAHs, PCBs, organochlorine pesticides (OCPs), organophosphate pesticides (OPPs) and asbestos. **Groundwater** BTEX, TRH, VOCs, PAHs, 8 priority heavy metals
Historical land uses Use of the site as a market garden and for agricultural purposes. Storage of construction and demolition materials/wastes, machinery, equipment and various fuels, oils and chemicals.	Use of pesticides for vermin and weed control. Servicing, maintenance and operation of agricultural machinery and equipment.	**Soil** Heavy metals, TRH, BTEX, PAHs, PCBs, OCPs, OPPs and asbestos **Groundwater** BTEX, TRH, VOCs, PAHs, 8 priority heavy metals (filtered)
Off-Site Land Uses Adjacent properties used for mechanical repairs	Operation of mechanical workshop including storage	**Soil**

Source	Evidence/Data Gap	COPC
and servicing, NSW Rural Fire Service, Marine Rescue NSW and NSW SES stations.	and potential spills of fuels, oils and solvents. Operation of Fire Rescue and SES facilities including the potential for fire training activities.	Heavy metals, TRH, BTEX, PAHs and PFAS. **Groundwater** BTEX, TRH, VOCs, PAHs, 8 priority heavy metalsand PFAS.

6.2. Potentially Affected Media

Potentially affected media at the site include:

- Soil.
- Groundwater.

A risk-based and staged approach to the assessment of on-site groundwater was adopted for this assessment, whereby preliminary review of field observations and soil analytical data compared against adopted Tier 1 screening criteria would inform whether assessment of groundwater was required. Preliminary review of the investigation findings did not identify mobility and migration from soil to groundwater to present a potential contamination risk, as such on-site groundwater was not assessed as part of the DD/ESA.

6.3. Potential Receptors and Pathways

6.3.1. Proposed Land Use Scenario and Potential Receptors

The proposed development will consist of a multi-purpose area comprising of various potential future land uses, including a fast-food restaurant, gym, garden centre and a childcare centre. The majority of the proposed redevelopment is anticipated to be covered by hardstand areas, with some small dedicated landscaped areas.

Although the proposed development of the site is multi-faceted, the most conservative land use scenario must be considered for comparison against criteria, which will be low-density residential for the proposed childcare centre.

Based on the above, the potential receptors at and near the site include the following:

- On-site receptors:
  - Current and future demolition/construction/maintenance workers.
  - Current and future users and visitors of the site and future commercial/retail workers.
  - Limited on-site ecological receptors (terrestrial flora and fauna) in landscaped areas.
- Off-site receptors:

- Current and future intrusive construction/maintenance workers on adjacent properties.
- Surrounding surface water receptors.
- Commercial/workers and visitors at surrounding properties.
- Current and future occupants and visitors of residential properties.
- Current and future aquatic flora and fauna in Kierans Creek to the west.

6.3.2. Human Health – Direct Contact Pathway

Given the site history, it is considered appropriate to assess whether a direct contact source may be present on the site for current/future users of the site.

6.3.3. Human Health – Inhalation / Vapour Intrusion Pathway

Given the proposed development plans, there is potential for volatilisation of volatile organic compounds bound to soils/groundwater to accumulate beneath the future building footprint and become an inhalation health risk via vapour intrusion for future users/visitors and maintenance workers. Further to this, leaching of COPC into the groundwater aquifer can also lead to lateral migration with similar exposure to offsite receptors.

It is therefore considered appropriate, given the presence of fill of unknown origin to assess whether a vapour source may be present on the site and determine if there is an unacceptable risk to future users of the site.

6.3.4. Aesthetics

No visual evidence of widespread or significant staining was observed on the surface of the site. While it is considered that the proposed site hardstand materials will prevent receptor visual exposure to potentially aesthetically impacted sub–surface soils, an assessment of aesthetics can be made during assessment of other pathways.

Given the commercial nature of the proposed development and hardstand surface covering large portions of the site, aesthetics impacts of soil and fill materials are unlikely to preclude the proposed the development.

6.3.5. Ecological – Terrestrial Ecosystems

The NEPC (2013) NEPM requires a pragmatic risk-based approach should be taken in applying ecological investigation and screening levels in residential and commercial / industrial land use settings.

The EIL and ESL guidelines are considered by Reditus to only be applicable to proposed garden bed areas or deep soil areas for the proposed development. It is noted that the proposed development will include construction a hardstand building footprint and car parking across majority of the site on ground level. It is considered that this limits the environmental values that require consideration (i.e. support of plant growth).

The proposed extensive area of pavement across the remainder of the site (and the minimal, peripheral, landscaped area (i.e. approximately less than 5% of the total site area) associated with the development footprint limits physical access to soils. In addition, the pavement limits the potential for water infiltration into the subsurface fill layers during rainfall events and thereby reduces the ongoing potential for contaminant mobility and migration from soil to groundwater.

6.4. Potential Exposure Pathway Assessment

A summary of the potential exposure pathway assessment is provided in Table 6-2 below.

Table 6-2: Potential Exposure Pathway Assessment

Source	Pathway	Receptor	Exposure Assessment
Fill materials and ACM fragments identified in fill materials on site	Direct contact	Future site occupants. Current and future onsite maintenance workers in a trench.	The potential exists for site users, construction workers including future maintenance workers and ecological receptors to encounter any underlying soils/groundwater potentially impacted with hazardous substances and materials. **There is a potential complete pathway**
	Inhalation / Vapour Intrusion	Future site occupants. Current and future onsite maintenance workers in a trench. Current and future off-site occupants and visitors	On-site users, ecological receptors, construction and maintenance workers and off-site visitors and occupants of residential properties may be at risk of inhaling dust from the fill material or soils during site construction/maintenance works (if present). Any volatile contaminant present within the fill materials and groundwater may pose a potential vapour intrusion risk to site users, ecological receptors, commercial workers and maintenance workers. **There is a potential complete pathway**
	Ingestion	Future site occupants. Current and future construction and maintenance workers	Construction and maintenance workers, ecological receptors, and future site occupants may be at risk of ingesting soil material (dust) from the fill material or soil. **There is a potential complete pathway**
	Leaching to groundwater	Users of groundwater and Kierans Creek receptors.	The potential existing for contaminants to leach through the fill material into the underlying site groundwater. The contaminants may then migrate through the groundwater and impact offsite groundwater receptors.

Source	Pathway	Receptor	Exposure Assessment
			There is a potential complete pathway
Historical land uses	Direct contact	Future site occupants. Current and future onsite maintenance workers in a trench.	The potential exists for site users, ecological receptors, construction workers including future maintenance workers to encounter any underlying contaminated soils/groundwater. **There is a potential complete pathway**
	Inhalation / Vapour Intrusion	Future site occupants. Current and future onsite maintenance workers in a trench. Current and future off-site occupants and visitors	On-site users, ecological receptors, construction and maintenance workers and off-site visitors and occupants of residential properties may be at risk of inhaling dust from the on-site soils potentially contaminated by historical activities during site construction/ maintenance works (if present). Any volatile contaminant present within the soils and groundwater may pose a potential vapour intrusion risk to site users, ecological receptors, commercial workers and maintenance workers. **There is a potential complete pathway**
	Ingestion	Future site occupants. Current and future construction and maintenance workers	Construction and maintenance workers, ecological receptors and future occupants on-site may be at risk of ingesting potentially contaminated soil/groundwater. **There is a potential complete pathway**
	Leaching to groundwater	Users of groundwater and Kierans Creek receptors.	The potential existing for contaminants to leach through the soil into the underlying site groundwater. The contaminants may then migrate through the groundwater and impact offsite groundwater receptors. **There is a potential complete pathway**
Off-Site Land Uses	Direct contact	Future site occupants. Current and future onsite maintenance workers in a trench.	The potential exists for site users, ecological receptors, construction workers including future maintenance workers to encounter any underlying contaminated soils/groundwater resulting from off-site contamination sources. **There is a potential complete pathway**

Source	Pathway	Receptor	Exposure Assessment
	Inhalation / Vapour Intrusion	Future site occupants. Current and future onsite maintenance workers in a trench. Current and future off-site occupants and visitors	On-site users, ecological receptors, construction and maintenance workers and off-site visitors and occupants of residential properties may be at risk of inhaling dust from the on-site soils potentially contaminated by off-site potentially contaminating activities during site construction/ maintenance works (if present). Any volatile contaminant present within the soils and groundwater may pose a potential vapour intrusion risk to site users, ecological receptors, commercial workers and maintenance workers. **There is a potential complete pathway**
	Ingestion	Future site occupants. Current and future construction and maintenance workers	Construction and maintenance workers, ecological receptors and future occupants on-site may be at risk of ingesting potentially contaminated soil/groundwater resulting from off-site contamination sources. **There is a potential complete pathway**

7. Data Quality Objectives

The Data Quality Objective (DQO) process is a systematic planning tool based on the scientific method for establishing criteria for data quality and for developing data collection designs. The DQO defines the experimental process required to test a hypothesis. The DQO process has been developed to ensure that efforts relating to data collection are cost effective, by eliminating unnecessary, duplicative or overly precise data whilst at the same time, ensuring the data collected is of sufficient quality and quantity to support defensible decision making.

It is recognised that the most efficient way to accomplish these goals is to establish criteria for defensible decision making before data collection begins and develop a data collection design based on these criteria. By using the DQO process to plan the investigation effort, the relevant parties can improve the effectiveness, efficiency and defensibility of a decision in a resource and cost-effective manner.

The DQO process consists of seven steps, which are designed to clarify the study objectives, define the appropriate type of data and specify tolerable levels of potential decision errors. The seven-step DQO process adopted for this due diligence site investigation can be summarised as:

- **Step 1: State the Problem** – concisely describe the problem to be studied. Review prior studies and existing information to gain a sufficient understanding to define the problem.
- **Step 2: Identify the Decision** – identify what questions the study will attempt to resolve, and what actions may result.
- **Step 3: Identify the Inputs to the Decision** – identify the information that needs to be obtained and the measurements that need to be taken to resolve the decision statement.
- **Step 4: Define the Study Boundaries** – specify the time periods and spatial area to which decisions will apply. Determine when and where data should be collected.
- **Step 5: Develop a Decision Rule** – define the statistical parameter of interest, specify the action level, and integrate the previous DQO outputs into a single statement that describes the logical basis for choosing among alternative actions.
- **Step 6: Specify Tolerable Limits on Decision Errors** – define the decision maker's tolerable decision error rates based on a consideration of the consequences of making an incorrect decision; and
- **Step 7: Optimise the Design** –evaluate information from the previous steps and generate alternative data collection designs. Choose the most resource-effective design that meets all DQOs.

The DQOs are provided in Table 7-1 below and were derived in accordance with Australian Standard 4482.1-2005 'Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds' (AS 4482.1-1997).

Table 7-1: Data Quality Objectives

Step	Discussion
1. State the Problem	Potential sources of contamination have been identified at the site and off-site. Site-specific soil data was required to assess the extent and/or magnitude of contamination (if present) at the site. Prior to conducting the current investigation, it was unknown if the site is currently suitable for the proposed development.
2: Identify the decision/goal of the study	The goal of the study was to identify whether any contamination was present on site and if so, does it present an unacceptable risk to human health or the environment with respect to the proposed mixed-use redevelopment. If elevated concentrations of COPCs are identified at the site: ▪ What is the extent of the impact? ▪ Does any COPC at the site occur at concentrations that pose or may pose an unacceptable liability or risk to the environment and/or human health to persons who will utilise the future development? ▪ If so, what is the order of priority to minimise the risk and what additional measures are required to mitigate, remediate, or manage the risk? ▪ Is the site suitable for the proposed mixed-use redevelopment?
Step 3: Identify the information inputs	Key data is required to resolve the project problem included concentrations of CoPC in the soil collected in the study area and the structure and depth of the underlying site geology. The CoPC selected were based on the results of the desktop study and the current site condition observed during fieldworks as listed within Table 6-1. The guidelines adopted by Reditus to assess the soil results were as follows. **Soil Assessment Criteria:** ▪ NEPM ASC (2013) Health Screening Levels (HSLs) for Vapour Intrusion A&B – Low-High Density Residential. ▪ NEPM ASC (2013) Health Investigation Levels (HIL) A – Low-Density Residential. ▪ NEPM ASC (2013) Management Limits (ML) – Residential, parkland and public open space – coarse soils. ▪ NEPM ASC (2013) Environmental Investigation Levels (EIL) – Urban Residential and Public Open Space – generic trigger values. ▪ NEPM ASC (2013) Ecological Screening Levels (ESLs) – Urban Residential and Public Open Space – coarse soils. ▪ NEPM ASC (2013) HSLs for asbestos contamination in soil – Residential A land use setting.

Step	Discussion
	▪ PFAS NEMP (2020) HILs for Residential with garden/accessible soil (HIL-A). ▪ PFAS NEMP (2020) Ecological Guideline Value - Direct Exposure. ▪ PFAS NEMP (2020) Ecological Guideline Value – Indirect Exposure. Further explanation for the selection of these criteria is provided below in Section 8 below. In the case that CoPC are detected that do not currently have a state or nationally endorsed assessment criteria, an appraisal of international guidelines will be conducted to determine an appropriate screening value.
Step 4: Define the boundaries of the study	This investigation was restricted to the physical site boundaries, as shown in **Figure 2, Appendix A**. The vertical extent of the study boundaries was limited to a maximum depth of 1.9 m bgl (depth to refusal on sandstone rock). The temporal boundaries of the study were limited to the dates that the investigation was conducted.
Step 5: Develop a decision rule	If the concentrations of CoPCs in the soil are reported to be below the relevant adopted guidelines, then the site will be deemed suitable and no management/remediation options will be proposed for the proposed future use at the site. If, however, the concentration of one or more CoPCs are greater than the guidelines, then further investigation may be required to laterally and vertically delineate the extent of the impact and/or recommendations made for the remediation/management of contamination to render the site suitable for the proposed use.
Step 6: Specify Tolerable Limits on Decision Errors	The acceptable limits for samples are as follows: ▪ % RPD for laboratory duplicates for TRH and BTEX analysis is less than 60%; and ▪ Recovery of matrix spikes and surrogate spikes is as per the laboratory's Quality Assurance targets accepted under their National Association of Testing Authorities (NATA) accreditation. Precision is measured using the standard deviation 'SD' or Relative Percent Difference '%RPD'. Replicate data for field duplicates of organics is expected to be as follows: ▪ RPD criteria of 50% or less, for concentrations > or = 10 times practical quantitation limits (PQL). ▪ RPD criteria of 75% or less, for concentrations between 5 and 10 times the EQL. ▪ RPD criteria of 100% or less, for concentrations < 5 times PQL. Replicate data for field duplicates for inorganics, including metals is expected to be as follows: ▪ RPD criteria of 30% or less, for concentrations > or = 10 times PQL.

Step	Discussion
	▪ RPD criteria of 75% or less, for concentrations between 5 and 10 times the EQL. ▪ RPD criteria of 100% or less, for concentrations < 5 times PQL. Where acceptable limits for field duplicates were not met, a discussion on low biased error will be provided. For this investigation, a decision error of 5% will be considered acceptable This error rate is in accordance with Appendix B of Schedule B(2) of the ASC NEPM. In order to achieve this level of confidence, the investigation has been designed as described below.
Step 7: Optimise the Design	Soil samples were collected on both a judgemental (targeted) and systematic grid-based sampling design program, with COPC analysis based on the potential areas of concern. Soil samples were collected at relevant intervals, changes in geology or in zones of gross contamination and locations selected for efficient and representative sampling. All media sampled was conducted in accordance with Reditus standard operating procedures (SOPs) and relevant industry guidelines.

8. Tier 1 Assessment Criteria

Tier 1 assessment involves the comparison of monitoring data to published guideline criteria (typically presented as screening levels). Relevant criteria are selected based on the identified viable exposure routes and the available data.

In Australia, appropriate HILs (including interim HILs for vapour and, where applicable, HSLs for petroleum hydrocarbons and assessment criteria for asbestos) and GILs are used for Tier 1 screening to provide a rapid assessment of whether the site contamination may be of concern with respect to human health. Should contaminant concentrations at a site occur at levels that are below the Tier 1 levels, this implies that for the majority of the people in the population there is no significant health risk from contamination and that remedial action may not be required to protect human health.

Exceedances of the tier 1 HILs should be identified and considered. Tier 1 HIL exceedances do not imply that a risk is necessarily present, but that further assessment may be justified. Tier 1 HILs are not intended to indicate a clear demarcation between acceptable and unacceptable. Marginal exceedances may not require quantitative Tier 2 risk assessment to conclude that further assessment is not necessary. The magnitude of the exceedance should be considered in the context of the CSM (that is, whether the exposure pathways are plausible and whether exposure will result in harm).

Tier 1 screening criteria (including HILs and HSLs) should only be used where there has been adequate characterisation of a site (that is, appropriate representative sampling has been carried out). For this investigation the maximum reported concentrations for each sample and analyte will be compared against the tier 1 criteria. Should any individual sample exceedance of the tier 1 criteria exist, the 95% Upper Confidence Limit (UCL) of the analyte for the site data set was calculated and compared to relevant Tier 1 screening criteria. However, the implications of localised elevated values should also be considered. In order to adopt the 95% UCL result, the analyte data set must also meet the following criteria:

- the standard deviation (SD) of the results should be less than 50% of the Tier 1 screening criteria
- no single value exceeds 250% of the relevant Tier 1 screening criteria (characterised as a 'hot-spot').

Where site data exceeds the screening levels or suitable screening levels cannot be identified, further consideration (Tier 2 assessment) is required.

8.1. Soil Assessment Criteria

The tier 1 assessment criteria were adopted from:

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

Despite the mixed-use land scenario, the soil assessment criteria (SAC) adopted for this investigation were chosen with a conservative approach due to the proposed childcare centre. The following criteria were selected utilising this approach:

- Ecological Investigation Levels (EILs) guidelines were selected to assess the risk of selected heavy metals and organic substances to terrestrial ecosystems. EILs are dependent on specific soil physico-chemical properties. Generic EIL criteria for low-density residential land use were adopted from Table 1B(4) of NEPM (2013) as tier 1SAC.
- Ecological Screening Levels (ESL) (Sand) guidelines for Urban Residential and Public Open Space land use setting were selected to evaluate the risk of identified contamination to terrestrial ecosystems within the initial 2m bgl. The ESL provide guidance for petroleum hydrocarbons in sand.
- Detected soil concentrations have been assessed against the NEPC (2013) NEPM HIL-A as the proposed future use of the site includes a childcare centre.
- NEPC (2013) NEPM HSL-A&B have been adopted to evaluate the risk posed from vapour intrusion. The soil HSLs are based on depth of impacts, overlying soil type and land use. The selection of HSL-A & B was based the applicable ground floor land use (child-care centre), the potential receptor/s onsite and the exposure that may be experienced. A review of subsurface conditions indicated the dominant presence of sand-based material within the fill material. As such, HSLs for sand have been adopted to effectively characterise the subsurface conditions residing on site.
- Management Limits (MLs – Residential, parkland and public open space) have been adopted and are used to consider the potential formation of light non-aqueous phase liquids, fire and explosion risks and damage to buried infrastructure. Sand was observed to be the predominant sub-surface material during works and thus MLs for Sand have been adopted.
- PFAS NEMP (2020) HIL-A guidelines for residential with garden/accessible soil land use setting were selected based on the proposed future use of the site including a childcare centre and potential off-site sources of PFAS contamination within close proximity to the site.
- PFAS NEMP (2020) Ecological Guideline Values for indirect and direct exposure were selected to evaluate the risk of potential on-site PFAS contamination (resulting from off-site contamination sources) to on-site ecological receptors.
- The assessment criteria for asbestos was adopted from NEPC (2013) NEPM, which provides health screening levels for asbestos contamination in soil, which are based on specific land use exposure scenarios, for three forms of asbestos: bonded asbestos containing material (ACM), friable asbestos (FA) and asbestos fines (AF). The laboratory method for analysis of asbestos in bulk materials is based on AS 4964&2004. Consequently, a practical quantification limit (PQL) equal to or less than 0.001% by weight is not adopted and the limit is 0.1g/kg (equivalent to 0.01% w/w). by weight is not possible and the limit is 0.1g/kg (equivalent to 0.01% w/w). The laboratory however will report asbestos results to both the NATA accredited PQL and lower 0.001% by weight NEMP (2013) quantification. In addition to the laboratory results, a criteria of "no

visible asbestos containing materials in soils sampled" has been adopted. The health screening level for low-high density residential sites has been adopted for this assessment.

Soil and asbestos analytical results are tabulated in **Table 1** and **Table 2**, respectively in **Appendix B,** and guideline criteria are presented in Table 8-1.

Table 8-1: Soil Assessment Criteria (mg/kg)

Analyte	HIL A	HSL-A (CLAY)				ESL	ML**	EIL	PFAS HIL-A	PFAS Ecological Direct Exposure	PFAS Ecological Indirect Exposure
		0 - <1m	1 - 2m	2 - 4m	>4 m						
Arsenic	100	-	-	-	-	-	-	100	-	-	-
Cadmium	20	-	-	-	-	-	-	-	-	-	-
Chromium (VI)	100*	-	-	-	-	-	-	-	-	-	-
Copper	6000	-	-	-	-	-	-	-	-	-	-
Lead	300	-	-	-	-	-	-	1100	-	-	-
Mercury	40	-	-	-	-	-	-	-	-	-	-
Nickel	400	-	-	-	-	-	-	-	-	-	-
Zinc	7400	-	-	-	-	-	-	-	-	-	-
Toluene	-	480	NL	NL	NL	105	-	-	-	-	-
Ethylbenzene	-	NL	NL	NL	NL	125	-	-	-	-	-
Xylenes	-	110	310	NL	NL	45	-	-	-	-	-
Naphthalene	-	5	NL	NL	NL	-	-	170	-	-	-
Benzene	-	0.7	1	2	3	65	-	-	-	-	-
F1 (C_6-C_{10})	-	50	90	150	290	180	800	-	-	-	-
F2 (C_{10}-C_{16})	-	280	NL	NL	NL	120	1,000	-	-	-	-
F3 (C_{16}-C_{34})	-	-	-	-	-	1300	3,500	-	-	-	-
F4 (C_{34}-C_{40})	-	-	-	-	-	5600	10,000	-	-	-	-
BaP	-	-	-	-	-	0.7	-	-	-	-	-
BaP TEQ	3	-	-	-	-	-	-	-	-	-	-
Total PAHs	300	-	-	-	-	-	-	-	-	-	-
Phenols	3000	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	100	-	-	-	-	-	-	-	-	-	-
DDT	-	-	-	-	-	-	-	180	-	-	-
DDT+DDE+DDD	240	-	-	-	-	-	-	-	-	-	-
Aldrin and dieldrin	6	-	-	-	-	-	-	-	-	-	-

Analyte	HIL A	HSL-A (CLAY)				ESL	ML**	EIL	PFAS HIL-A	PFAS Ecological Direct Exposure	PFAS Ecological Indirect Exposure
		0 - <1m	1 - 2m	2 - 4m	>4 m						
Chlordane	50	-	-	-	-	-	-	-	-	-	-
Endosulfan	270	-	-	-	-	-	-	-	-	-	-
Endrin	10	-	-	-	-	-	-	-	-	-	-
Heptachlor	6	-	-	-	-	-	-	-	-	-	-
HCB	10	-	-	-	-	-	-	-	-	-	-
Methoxychlor	300	-	-	-	-	-	-	-	-	-	-
Toxaphene	20	-	-	-	-	-	-	-	-	-	-
Chloropyrifos	160	-	-	-	-	-	-	-	-	-	-
PCBs	1	-	-	-	-	-	-	-	-	-	-
PFOS	-	-	-	-	-	-	-	-	-	1	0.01
PFOA	-	-	-	-	-	-	-	-	-	10	-
PFHxS + PFOS	-	-	-	-	-	-	-	-	0.007***	-	-
Asbestos (bonded) >7mm	0.01 %w/w										
Asbestos (AF/FA)	0.001 %w/w										
Visible Asbestos	No visible asbestos in top 10cm										

* Guideline for Chromium (III)

** Separate management limits for BTEX and naphthalene are not available hence these should not be subtracted from the relevant fractions to obtain F1 and F2.

*** Assumes 25% PFOS and 75% PFHxS.

NL – Non Limiting. No limit value specified, exceeds saturation limit.

9. Method

The methods used for the collection of data for the DD/ESA are presented in the following sections.

9.1. Schedule of Works

Fieldworks including site inspection, test pitting and soil sampling a were conducted by Reditus Environmental Scientists Ross Kingswell and Jack Palma on the 16th December 2021.

9.2. Sampling Analysis Plan and Sampling Rationale

The objective of the sampling plan was to meet the objectives stated in Section1.2. Sampling locations were strategically placed across the site to:

- Assess nature, extent and degree of potential contamination; and
- To adequately assess the soil quality across the site.

The sampling plan was based on a grid system across the site to provide sufficient data to allow for in situ soil assessment, with some targeted PFAS sampling in the eastern portion of the site closest to the potential PFAS contamination sources east of the site. The combination of these works provides increased confidence in the conclusions made for the status of soil at the site.

Soil sample locations were completed on a targeted and an approximate systematic grid to ensure adequate site coverage.

On the site, a total of twenty-five (25) test pits were completed along with an additional eight (8) visual 'step-out' test pits to a maximum depth of 0.3 mbgl surrounding test pits TP02 and TP04 in which asbestos was visually observed. A total of twenty-five (25) sample locations are required in accordance with the NSW EPA (1995) *Sampling Design Guidelines* 'Table A - Minimum Sampling Points Required for Site Characterisation' to appropriately characterise soil at a site of up to 1.5 ha. Furthermore, the sampling regime and methodology was conducted in accordance NSW Department of Environment and Conservation (2005) – *Guidelines for Assessing Former Orchards and Market Gardens*.

For due diligence purposes, Reditus consider that sufficient sampling locations and methods were conducted to adequately characterise the site.

The test pit and sample locations are provided in **Figure 2, Appendix A**.

9.3. Soil Sampling

Soil samples were collected from the near surface, at changes in lithology or zones with any visual (staining or discolouration) or olfactory signs of contamination.

The soil samples were collected directly from the test pit or excavator bucket. Efforts were made to minimise disturbance of the material being sampled to the extent practicable. Such techniques included taking care during sampling to remove

material directly from the middle of the excavator bucket and removing the outside layer of material, to prevent cross-contamination and minimise the potential for loss of VOCs.

Part of the soil sample was placed into snap lock plastic bag for screening with a photo-ionisation detector (PID), and the remaining part being placed directly into a laboratory prepared 250 mL glass jar or specific PFAS soil sampling container with the details of the sample, including the sample name, the job number, the date of sample and the sample depth.

Sample preservation was undertaken in accordance with NEPC (2013) NEPM, with samples immediately placed and stored in an ice filled esky to keep them chilled, prior to being couriered to the laboratory under a signed chain of custody (COC) form filled out with the required analysis.

Each soil sample was described in general accordance with the USCS and details of any discolouration, staining, odours or other indicators of contamination were also noted.

In summary, soil samples were collected in accordance with Reditus standard operating procedures which are based on the NEPC (2013) NEPM, Australian Standard AS4482.1-2005 and AS4482.2-1999 and OEH requirements. All samples were analysed within holding times.

Soil samples were selected for laboratory analysis based on the presence of odours, staining, changes in geology and the infield PID screening results. Samples that displayed indications of potential contamination, such as, hydrocarbon odours, staining or elevated PID measurements were selected for analysis.

Test pit logs with lithology descriptions are provided in **Appendix C**.

9.3.1. ACM Soil Sampling Methodology

Soil samples were collected from the surface and near-surface and generally at every 0.5m, at changes in lithology or zones with any visual (ACM) signs of contamination.

A total of twenty-five (25) separate 500mL soil samples were collected from test pits where fill materials were encountered. Samples were collected in accordance with the NEPC (2013) NEPM methodology for asbestos gravimetric sampling and submitted for asbestos in soil quantification analysis.

500mL soil samples were placed into snap lock plastic bag (double bagged), with the details of the sample, including the sample name, the job number, the date of sample and the sample depth, for laboratory analysis of AF and FA asbestos in accordance with the NEPC (2013) NEPM, where possible.

A minimum of one (1) 10L sample from each test pit was collected from a representative depth interval. All samples were individually screened manually through a 7 x 7 mm sieve or spread over a contrast surface (i.e. tarp) and inspected if unable to be sieved. Any ACM or FA identified was collected, bagged and submitted to the laboratory for asbestos identification and weight of asbestos fragments collected.

Percentage soil asbestos from collected ACM was calculated as follows:

$$\%Soil\ Asbestos = \frac{\%Asbestos\ Content \times ACM\ (kg)}{Soil\ Volume\ (L) \times Soil\ Density\ (kg/L)}$$

where:

% Asbestos Content by weight (within asbestos cement materials) = 10% – 15% (Reditus has adopted 15% for the sake of conservatism)

Soil Density (for sand material) = 1.65 kg/L

Soil samples were couriered to the laboratory under a signed chain of custody (COC) forms filled out with the required analysis.

10. Quality Assurance and Quality Control (QA/QC)

10.1. Field Quality Assurance

10.1.1. Details of Sampling Team

Fieldworks including site inspection, test pitting and soil sampling were conducted by Reditus Environmental Scientists Ross Kingswell and Jack Palma on the 16th December 2021. Each are suitably qualified and experienced in the collection of environmental samples.

10.1.2. Decontamination Procedures Carried out Between Sampling Events

There were no reusable sampling tools used between events with the exception of a 7 mm sieve. The sieve was brushed clean with a wire brush between sampling events and rinsed with potable water. Reditus considers this to be a suitable method of decontamination.

10.1.3. Chain of Custody Details

Soil samples were transported to the laboratory under a chain of custody (CoC). Information on the CoC included the sampler, sample identifier, sample matrix, collection date, analyses to be performed, sample preservation method, sample release date and sample received date. COCs are provided in **Appendix E** along with the laboratory reports.

10.1.4. Trip Blanks

Trip Blanks and Field Blanks are used to assess contamination from field conditions at the time of the sampling event and that sampling procedures were adequate in preventing cross contamination of VOCs during sample transport and storage.

One (1) Trip Blank sample was collected during soil sampling and submitted to laboratory for analysis of VOCs.

10.1.5. Trip Spikes

Trip Spike samples accompanied samples collected in the field and transported to the laboratory to assess the effects of sample storage and transport on the identified concentrations of volatile contaminants of concern.

One (1) Trip spike sample was collected during soil sampling. The Trip Spike samples was prepared by the laboratory Envirolab and submitted for analysis of VOCs.

10.1.6. Sampling Splitting Techniques

Soil duplicates (DUP1, DUP2) and triplicates (TRIP1, TRIP2) were collected by taking representative samples of the soil at the same depth interval. Due to the potential loss of volatiles, samples were not mixed or homogenised during collection or splitting.

10.1.7. Statement of Duplicate Frequency

Field intra-laboratory duplicates and inter-laboratory duplicates were collected at a rate of 1:20 samples. This rate is within the Australian Standard 4482.1-2005 'Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds and Reditus' QA frequency ranges.

The following soil QA/QC samples were collected:

- Soil: DUP1 and TRIP1 were respectively soil intra-laboratory and inter-laboratory duplicates of sample TP01-0.1.
- Soil DUP2 and TRIP2 were respectively soil intra-laboratory and inter-laboratory duplicates of sample TP14-0.5.

10.2. Laboratory QA/QC

10.2.1. Sample Technical Holding Times

All holding times were reported as being within specified ranges.

10.2.2. Laboratory Accreditation and Analytical Methods Used

The primary laboratory used for soil samples was Envirolab Services Pty Ltd (Envirolab), while the secondary laboratory for soil samples was Eurofins MGT (Eurofins).

Eurofins is accredited by NATA with the accreditation number 1261, while Envirolab is also accredited with the accreditation number 2901.

Laboratory QA/QC is provided on the laboratory reports in **Appendix E**.

10.2.3. Laboratory Control Samples

Laboratory control samples were in acceptable ranges.

Detailed laboratory QA/QC are found in the laboratory report in **Appendix E**.

10.2.4. Laboratory Control and Duplicate Samples

Laboratory control and duplicate samples were within acceptable ranges.

Detailed laboratory QA/QC are found in the laboratory report in **Appendix E**.

10.3. Evaluation of the QA/QC Information Compared to the DQOs

- Documentation completeness:
  - Soil logs, chain-of-custody forms were complete and appropriate.
- Data completeness:
  - All samples were received by the laboratories and analytical results reported including laboratory QA/QC.
- Data comparability:
  - Reditus standard operating procedures, Australian Standards and industry best practice were followed during sampling.
  - Consistent field conditions and similarly trained staff were used during sampling; and
  - The limits of reporting are appropriate and generally consistent from each laboratory.
- Data representativeness:
  - Reditus is confident that cross contamination has not occurred, and primary samples are representative of actual soil conditions.
  - The frequency of laboratory blanks was acceptable, and the results were within specified ranges.
- Precision:
  - Intra-laboratory and inter-laboratory duplicates were collected at the following rates:
    - Soil intra-laboratory and inter-laboratory duplicates frequency were collected at least 1:20.
  - QA/QC sample collection rate follows the guidance provided in the Australian Standard Field procedures (AS1482.1 1997).

10.3.1. Relative Percent Difference

Refer to **Table 3, Appendix B** for Relative Percent Differences (RPDs) calculations. Reditus notes that RPDs were only calculated for groups of compounds with detections above the laboratory detection limits.

RPDs for soil were reported within acceptable ranges.

10.3.2. Trip Blanks

Results of analysis reported concentrations in Trip Blanks to be below the laboratory limit of reporting. The results of the Trip Blank indicate that field conditions, sampling, storage and transport procedures were adequate.

Results of the Trip Blanks are provided in **Table 4, Appendix B**.

10.3.3. Trip Spikes

Results of analysis of Trip Spikes reported all analytes within acceptable recovery percentages, indicating that sampling storage and transportation procedures were adequate, with potential for cross-contamination considered minimal.

Acceptable results of the trip spike recovery analysis (recovery between 70-130%) indicated that sample storage and transport has been adequate to minimise volatile contaminant loss.

Results of the Trip Spikes are provided in **Table 4, Appendix B**.

11. Results

11.1. Field Observations

11.1.1. Soil

The following observations were made during excavation and soil sampling:

The soils identified during intrusive works included:

- **Fill:** Fill thickness ranges between 0.15 – 1.3 m. Fill materials were characterised by predominantly fine to medium grained silty sand and clayey sand.
- **Natural:** Natural material was encountered at depths ranging between 0.15 and 1.3 m. The predominant material was fine to medium grained clayey gravelly sand and clayey sand with inclusions of sub rounded gravels underlain by weathered Hawkesbury Sandstone.

Detailed test pit logs are provided in **Appendix C**, while sampling locations are provided in **Figure 2**, **Appendix A**.

During fieldworks, there was no hydrocarbon odours, staining or other visible signs of contamination noted. No PID measurements were reported in exceedance of 0.5 ppm, considered to be representative of ambient background levels.

During fieldworks, ACM bonded fibre cement sheeting fragments in fair condition were observed during 10L field screening in test pits TP02 and TP04 at depths of up to 0.3mbgl.

ACM bonded fibre cement sheeting fragments were also observed on the soil surface within the sub-floor space of the residential building in the south-east of the site. A representative sample (PACM-UH) was subsequently collected and submitted for asbestos identification analysis. Representative samples of suspected ACM building materials collected from the eaves of the residential building (PACM-Eaves) and the wall panels of the large storage shed/building in the south-east of the site (PACM-Shed) were also submitted for asbestos identification analysis.

At the time of inspection, large portions of the southern and north-western portion of the site were covered in dense vegetation. The soil surface was therefore not able to be thoroughly inspected in these areas.

Photographs taken during the investigation are provided in **Appendix D**.

11.2. Soil Analytical Results

All soil analytical results can be found in **Table 1, Appendix B**. The following section outlines the key findings of the comparison between laboratory results and the site assessment criteria.

11.2.1. Heavy Metals

Concentrations of heavy metals in all soil samples submitted for analysis were reported below the adopted human health and ecological guidelines.

11.2.2. TRH & BTEXN

Concentration of TRH and BTEX were reported below the adopted site human health and ecological assessment criteria in all soil samples analysed.

11.2.3. PAHs

Concentrations of PAHs in soil samples submitted for analysis were reported below the adopted guidelines with exception of sample TP17 (0.1m) which reported benzo(a)pyrene at 1.3 mg/kg above the adopted ESL for coarse soil (0.7 mg/kg). Benzo(a)pyrene concentrations reported for the remainder of the dataset were predominantly less than the laboratory limit of reporting with minor concentrations reported three (3) additional sample locations.

Given the distribution of benzo(a)pyrene concentrations across the site, the minor exceedance of adopted ESL criteria in an isolated shallow (0.1mbgl) sample location together the proposed redevelopment including construction of hardstand surface cover across majority of the site, the exceedance of the ESL criteria in TP17 is not considered to pose an unacceptable risk to future ecological receptors with respect to the proposed development.

11.2.4. OCPs, OPPs and PCBs

Concentrations of OCPs, OPPs and PCBs in all soil samples submitted for analysis were reported below the adopted guidelines.

11.2.5. PFAS

Concentrations of PFAS in all soil samples submitted for analysis were reported below the adopted guidelines.

11.2.6. Asbestos Identification

Bonded ACM fragments were observed during 10L field screening of soils in TP02 and TP04 at depths of up to 0.3mbgl within fill materials.

Concentrations of asbestos in soil from ACM (>7mm) were calculated as follows:

- TP02 (0.0-0.3 mbgl) reported bonded ACM (>7mm) containing Chrysotile asbestos at a concentration of 0.0024 %w/w below the NEPM (2013) HSL-A criteria of 0.01 %w/w.
- TP04 (0.0-0.1 mbgl) reported bonded ACM (>7mm) containing Chrysotile asbestos at a concentration of 0.004 %w/w below the NEPM (2013) HSL-A criteria of 0.01 %w/w.

No other ACM was found within 10L field screening samples collected at any of the other test pit location.

Concentrations of asbestos fines (AF) and fibrous asbestos (FA) were reported below the laboratory detection limit and NEPM (2013) HSL of <0.001 %w/w in all asbestos quantification in all 500mL soil samples analysed.

FA in the form of Amosite asbestos containing loose fibre bundles was positively identified by the laboratory in sample TP15 (0.1 mbgl) at a concentration below the limit of reporting (0.001%w/w).

An ACM (>7mm) fragment containing Chrysotile and Amosite asbestos was positively identified by the laboratory in the 500mL quantification sample collected at TP19 at 0.1 mbgl.

Asbestos was positively identified by the laboratory in material samples PACM-Eaves, PACM-UH and PACM-Shed, collected from the residential building eaves, sub-floor space and storage shed/building respectively.

No asbestos was detected at the reporting limit of 0.1 g/kg in remaining soil samples submitted for analysis. Additionally, no trace asbestos was detected in any of the analysed samples.

Analytical results for asbestos are presented in **Table 2**, **Appendix B**.

12. Discussion

12.1. Soil

The results of the laboratory analysis indicate that the concentrations of the chemical contaminants of potential concern in soil at each sample location was below adopted human health and ecological site assessment criteria for the proposed land use with exception of sample TP17 (0.1m) which reported benzo(a)pyrene at 1.3 mg/kg above the adopted ESL for coarse soil (0.7 mg/kg). Benzo(a)pyrene concentrations reported for the remainder of the dataset were predominantly less than the laboratory limit of reporting with minor concentrations reported three (3) additional sample locations.

Given the distribution of benzo(a)pyrene concentrations across the site, the minor exceedance of adopted ESL criteria in an isolated shallow (0.1mbgl) sample location together the proposed redevelopment including construction of hardstand surface cover across majority of the site, the exceedance of the ESL criteria in TP17 is not considered to pose an unacceptable risk to future ecological receptors with respect to the proposed development.

Concentrations of PFAS in all soil samples submitted for analysis were reported below the adopted guidelines.

12.2. Asbestos

Bonded ACM fragments were observed during 10L field screening of soils in TP02 and TP04 at depths of up to 0.3mbgl within fill materials at concentrations of 0.0024 %w/w and 0.004 %w/w, respectively, below the NEPM (2013) HSL-A criteria of 0.01 %w/w.

No other ACM was found within 10L field screening samples collected at any of the other test pit location.

Concentrations of AF and FA were reported below the laboratory detection limit and NEPM (2013) HSL of <0.001 %w/w in all asbestos quantification in all 500mL soil samples analysed.

FA in the form of Amosite asbestos containing loose fibre bundles was positively identified by the laboratory in sample TP15 (0.1 mbgl) at a concentration below the limit of reporting (0.001%w/w).

An ACM (>7mm) fragment containing Chrysotile and Amosite asbestos was positively identified by the laboratory in the 500mL quantification sample collected at TP19 at 0.1 mbgl.

Asbestos was positively identified by the laboratory in material samples PACM-Eaves, PACM-UH and PACM-Shed, collected from the residential building eaves, sub-floor space and storage shed/building respectively.

No asbestos was detected at the reporting limit of 0.1 g/kg in remaining soil samples submitted for analysis. Additionally, no trace asbestos was detected in any of the analysed samples.

The results of the assessment indicate asbestos in soil contamination from ACM (>7mm) at TP02, TP04 and TP19; and FA at TP15 (albeit at concentrations below the HSL-A criteria and/or limit of reporting) is present within the top 10cm of the soil profile and thus fails the NEPM (2013) HSL-A criteria for 'No visible asbestos in the top 10cm'. Furthermore, asbestos was positively identified in sample PACM-UH collected from the soil surface within the residential building sub-floor space.

The identified contamination is considered to present an unacceptable risk to potential on-site human receptors. The identified contamination requires remediation of ACM impacted soils and should be managed through development of a Remediation Action Plan (RAP) prior to commencement of the proposed development.

Furthermore, at the time of inspection, large portions of the southern and north-western portion of the site were covered in dense vegetation. The soil surface was therefore not able to be thoroughly inspected in these areas and should be addressed prior to proposed development.

13. Refined Conceptual Site Model

Based on the results of the investigation, the preliminary CSM presented in Section 6 has been refined to identify complete and potential pathways between the known or potential source(s) and the receptors(s).

13.1. Known and Potential Contamination Sources

Known and potential sources of contamination at the site, the associated CoPC and potentially affected media refined from the results of the investigation are listed in Table 13-1 below.

Table 13-1: Known and Potential Contaminant Sources

Source	Contaminants of Potential Concern	Affected Media
Fill Materials Importation of fill material of unknown origin and demolition of historical structures. ACM fragments were identified in near surface soils on site.	Asbestos	Soil

13.2. Review of Potential and Complete Exposure Pathways

13.2.1. Human Health – Direct Contact and Inhalation Pathway

The results of the investigation suggest a potential complete direct contact and inhalation (of fugitive dust) pathway exists for current and future site users, visitors, intrusive maintenance/construction workers on-site from surface asbestos and asbestos in soil (from ACM >7mm and FA) contamination.

13.3. Potential Exposure Pathway Assessment

Given the proposed development design, the most significant and likely future exposure pathways are direct contact with ACM and inhalation of fugitive dust from asbestos contamination in soil by intrusive maintenance/construction workers on-site during the construction of the proposed development.

14. Conclusions

Based on a review of the site history, observations made during fieldwork, results of laboratory analysis and the most conservative proposed land use (child-care centre), Reditus concludes the following:

- Fill of unknown origin was found to extend between 0.15 and 1.3 mbgl.
- No stains, odours, or other visible signs of contamination (with exception of ACM) were noted on the site. No PID readings exceeded 0.5 ppm above the background concentration.
- Chemical COPC in soil were reported below the adopted site assessment criteria in soil samples analysed with exception of a minor benzo(a)pyrene (1.3 mg/kg) exceedance of the ESL criteria (0.7 mg/kg) in TP17, however considered not to pose an unacceptable risk to future ecological receptors with respect to the proposed development.
- Bonded ACM fragments were observed during 10L field screening of soils in TP02 and TP04 at depths of up to 0.3mbgl within fill materials at concentrations of 0.0024 %w/w and 0.004 %w/w, respectively, below the NEPM (2013) HSL-A criteria of 0.01 %w/w.
- FA in the form of Amosite asbestos containing loose fibre bundles was positively identified by the laboratory in sample TP15 (0.1 mbgl) at a concentration below the limit of reporting (0.001%w/w).
- An ACM (>7mm) fragment containing Chrysotile and Amosite asbestos was positively identified by the laboratory in the 500mL quantification sample collected at TP19 at 0.1 mbgl.
- Asbestos was positively identified by the laboratory in material samples PACM-Eaves, PACM-UH and PACM-Shed, collected from the residential building eaves, sub-floor space soil surface and storage shed/building respectively.

The results of the assessment indicate asbestos in soil contamination from ACM (>7mm) at TP02, TP04 and TP19; and FA at TP15 (albeit at concentrations below the HSL-A criteria and/or limit of reporting) is present within the top 10cm of the soil profile and thus fails the NEPM (2013) HSL-A criteria for 'No visible asbestos in the top 10cm'. The identified contamination is considered to present an unacceptable risk to potential on-site human receptors.

Based on the findings of the investigation and reported asbestos in soil contamination in the form of ACM (>7mm) and FA within the top 10cm of the soil profile, Reditus considers that **the site is currently not suitable for the proposed development.**

Based on the findings of the DD/ESA, **the site can be made suitable for the proposed development**, subject to the preparation and implementation of a Remedial Action Plan (RAP) to address the identified asbestos in soil contamination. The RAP should be prepared by a certified environmental practitioner – site contamination specialist in accordance with the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated sites.

14.1. Recommendations

The site can be made suitable for the proposed development subject to the following recommendations being undertaken:

- Preparation of an interim site management plan (ISMP) to appropriately manage human health risks posed by the asbestos identified in the shallow site soils. The plan should be commissioned and implemented as soon as reasonably practicable.
- Preparation and implementation of a Remedial Action Plan (RAP), prepared by a certified environmental practitioner – site contamination specialist in accordance with the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated sites.
- The RAP can be incorporated into the site's development approval, detailing the recommended methodology for remediation and validation of asbestos in soil contamination identified on site. The RAP will include an appraisal of potential remedial options with respect to the proposed development design, exposure pathway risk assessment and financial considerations.
- Asbestos (as ACM and AF/FA) has been identified within fill material on the site (whilst at concentrations reported below the adopted land use assessment criteria), to comply with the WHS Regulation 2017, an Asbestos Management Plan (AMP) and asbestos register is required when the site becomes a 'workplace' (i.e. during any excavation and construction).
- A Hazardous Materials Survey (Hazmat) should be completed by a suitably qualified and experienced consultant, before commencement of demolition works of the residential property, in order to identify any hazardous materials that may be present within existing structure.
  - Should hazardous building materials be identified by the Hazmat, an asbestos clearance certificate, as required by the WHS Regulation (2017), is to be obtained from a suitably experienced scientist following removal of the hazardous building materials at the conclusion of demolition works.
- All materials requiring removal from the site for the proposed development will need to be classified in accordance with NSW EPA (2014) Waste Classification Guidelines.
    - A suitable sampling density should be adopted, appropriate to fully characterise the actual volume of material to be removed. Reditus recommends that the collected samples are analysed in accordance with the Toxicity Characteristic Leaching Procedure (TCLP) to enable an assessment in accordance with Table 2 of the NSW EPA (2014) Waste Classification Guidelines.
  - This material should only be transported offsite to an appropriately licensed landfill for disposal or to an appropriately licensed facility which is licensed to receive this material, and waste disposal dockets kept for 'cradle to grave' waste tracking purposes.

15. Limitations

This report has been prepared in accordance with the scope of services described in the Section 1.3. The letter has been prepared for the sole use of the client and has been prepared in accordance with a scope of work agreed by the client.

The report or document does not purport to provide legal advice and any conclusions or recommendations made should not be relied upon as a substitute for such advice.

The report does not constitute a recommendation by Reditus for the client or any other party to engage in any commercial or financial transaction and any decision by the client or other party to engage in such activities is strictly a matter for the client.

The report relies upon data, surveys, measurements and results taken at or under the site at particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the client. Furthermore, the report has been prepared solely for use by the client and Reditus accepts no responsibility for its use by other parties. The client agrees that Reditus' report or associated correspondence will not be used or reproduced in full or in part for promotional purposes and cannot be used or relied upon by any other individual, party, group or company in any prospectus or offering. Any individual, party, group or company seeking to rely on this report cannot do so and should seek their own independent advice.

No warranties, express or implied, are made. Subject to the scope of work undertaken, Reditus assessment is limited strictly to identifying typical environmental conditions associated with the subject property based on the scope of work and testing undertaken and does not include and evaluation of the structural conditions of any buildings on the subject property or any other issues that relate to the operation of the site and operational compliance of the site with state or federal laws, guidelines, standards or other industry recommendations or best practice. Scope of work undertaken for assessments are agreed in advance with the client and may not necessarily comply with state or federal laws or industry guidelines for the type of assessment conducted.

Additionally, unless otherwise stated Reditus did not conduct soil, air or wastewater analyses including asbestos or perform contaminated sampling of any kind. Nor did Reditus investigate any waste material from the property that may have been disposed off the site, or undertake and assessment or review of related site waste management practices.

The results of this assessment are based upon (if undertaken as part of the scope work) a site inspection conducted by Reditus personnel and/or information from interviews with people who have knowledge of site conditions and/or information provided by regulatory agencies. All conclusions and recommendations regarding the property are the professional opinions of the Reditus personnel involved with the project, subject to the qualifications made above.

While normal assessments of data reliability have been made, Reditus assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Reditus, or developments resulting from situations outside the scope of this project/assessment.

Reditus is not engaged in environmental auditing and/or reporting of any kind for the purpose of advertising sales promoting, or endorsement of any client's interests, including raising investment capital, recommending investment decisions, or other publicity purposes. Reditus assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Reditus, or developments resulting from situations outside the scope of this project.

In relation the conduct of Asbestos inspections or the preparation of hazardous materials reports Reditus has conducted inspections and the identification of hazardous material within the constraints presented by the property. Whilst efforts are made to access areas not normally accessed during normal use of the site to identify the presence of asbestos or other hazardous material, unless explicitly tested no guarantee can be provided that such material is or is not present.

Reditus' professional opinions are based upon its professional judgment, experience, and training. These opinions are also based upon data derived from the limited testing and analysis described in this report or reports reviewed. It is possible that additional testing and analysis might produce different results and/or different opinions or other opinions. Reditus has limited its investigation(s) to the scope agreed upon with its client. Reditus believes that its opinions are reasonably supported by the testing and analysis that has been undertaken (if any), and that those opinions have been developed according to the professional standard of care for the environmental consulting profession in this area at this time. Other opinions and interpretations may be possible. That standard of care may change and new methods and practices of exploration, testing and analysis may develop in the future, which might produce different results.

16. References

Australian Standard AS4482.1-2005. Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil. Part 1: Non-volatile and Semi-volatile Compounds. 2005.

Australian Standard AS4482.2-1999. Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil. Part 2: Volatile Substances. 1999

NEPC, 2013 National Environmental Protection (Assessment of Site Contamination) Measure (NEPM). Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater. 2013

NSW EPA (1995) Sampling Design Guidelines.

NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Sites.

NSW Department of Environment and Conservation (2005) – *Guidelines for Assessing Former Orchards and Market Gardens.*

Appendix A - Figures

REDITUS

Map	Legend	Figure 1 - Site Location
21385_rp01_f01_siteloc_v01	Site Boundary; Rivers; Streams; Minor Channels	40 Myoora Road, Terrey Hills, NSW
Date of Export: 20/01/2022		21385 - Due Diligence Environmental Site Assessment
Author: MB / **Approver**: DJ		Isaac Property
Data Source: Metromap, Google Maps, Open Street Map, NSW Government		

REDITUS

Map	**Author**
21385_rp01_f02_samplelocs_v01	MB
Date of Export	**Approver**
20/01/2022	DJ
Data source	
Metromap, Google Maps, Open Street Map	

N

0 15 30 m

1:1,100

Scale correct at A3

Figure 2 - Site Layout & Sample Locations

40 Myoora Road, Terrey Hills, NSW

21385 - Due Diligence Environmental Site Assessment

Isaac Property

Appendix B – Summary Results Tables & RPDs

Due Dilligence Environmental
Site Assessment
40 Myoora Road, Terrey Hills, NSW
21385RP01_v1

Table 1 - Soil Results Summary

REDITUS

				BTEX						TRH							TPH					PAH									
				Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	C6-C10 Fraction (F1)	C6-C10 (F1 minus BTEX)	>C10-C16 Fraction (F2)	>C10-C16 Fraction (F2 minus Naphthalene)	>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	>C10-C40 Fraction (Sum)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum)	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				1	0.2	0.5	1	2	1	3	25	25	50	50	100	100	50	25	50	100	100	50	0.2	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Res A Soil																																			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																			
>=0m, <1m				3	0.5	160	55			40		45[#7]		110[#8]																					3
>=1m, <2m				[#6]	0.5	220	[#6]			60		70		240																					[#6]
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil											700[#9]		1,000[#9]		2,500	10,000																			
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space				170																															170
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil >=0m, <2m					50	85	70			105		180[#7]	120[#11]	120[#12]	300	2,800												0.7							
PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)																																			
PFAS NEMP 2020 Ecological direct exposure																																			
PFAS NEMP 2020 Ecological indirect exposure																																			
Field ID	**Date**	**Depth (m)**	**Matrix Type**																																
TP01	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP01	16/12/2021	1.2	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP02	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1
TP02	16/12/2021	1.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP03	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP03	16/12/2021	1.3	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP04	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP04	16/12/2021	1.4	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP05	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP06	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP06	16/12/2021	0.6	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP07	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP07	16/12/2021	0.5	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP08	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP09	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP09	16/12/2021	0.5	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP10	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP11	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP11	16/12/2021	0.9	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP12	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP12	16/12/2021	1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP13	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP13	16/12/2021	1.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP14	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP14	16/12/2021	0.5	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP15	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP15	16/12/2021	1.2	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP16	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP17	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	**120**	<100	**120**	<25	<50	<100	<100	<50	**2**	<0.1	<0.1	**0.7**	**1.2**	1.1	**0.7**	**1.1**	**0.1**	**4.9**	**0.3**	**0.6**	**0.2**
TP17	16/12/2021	0.3	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	16/12/2021	1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP18	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP18	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	**110**	<100	**110**	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1
TP19	16/12/2021	0.3	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP20	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	**120**	<100	**120**	<25	<50	<100	**110**	**110**	<0.2	<0.1	<0.1	<0.1	<0.1	**0.06**	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1
TP21	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP21	16/12/2021	0.4	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP22	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP23	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP23	16/12/2021	0.4	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP24	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP25	16/12/2021	0.1	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	**0.06**	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1
TP25	16/12/2021	0.5	Soil	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Comments

#1 Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing
#2 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).
#3 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.
#4 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.
#5 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken
#6 Derived soil HSL exceeds soil saturation concentraiton
#7 To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#8 To obtain F2 subtract napthalene from the >C10 - C16 fraction.
#9 Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2
#10 Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.
#11 ERRATA Updated 30 April 2014 . Naphthalene should not be subtracted.
#12 Errata 30 April 2014. Naphthalene should not be subtracted from >C
#13 Assumes 25% PFOS and 75% PFHxS

Environmental Standards

2013, NEPM 2013 Table 1A(1) HILs Res A Soil
2013, NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand
NEPM, NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
2013, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil
HEPA, January 2020, PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure

Due Dilligence Environmental
Site Assessment
40 Myoora Road, Terrey Hills, NSW
21385RP01_v1

Table 1 - Soil Results Summary

REDITUS

				PAH					Metals								Organochlorine Pesticides																							
				Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	PAHs (Sum of positives)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	4,4-DDE	a-BHC	Aldrin + Dieldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.1	0.5	0.5	0.05	4	0.4	1	1	1	0.1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Res A Soil						3[#1]	3[#1]	300	100[#2]	20	100	6,000	300[#3]	40[#4]	400	7,400			6		50					240				10			6		10	300
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																						
>=0m, <1m																																						
>=1m, <2m																																						
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																						
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space									100[#10]															180														
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil >=0m, <2m																																						
PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)																																						
PFAS NEMP 2020 Ecological direct exposure																																						
PFAS NEMP 2020 Ecological indirect exposure																																						
Field ID	**Date**	**Depth (m)**	**Matrix Type**																																				
TP01	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	8	3	12	<0.1	<1	27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP01	16/12/2021	1.2	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	31	<1	4	<0.1	<1	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP02	16/12/2021	0.1	Soil	<0.1	0.1	<0.5	<0.5	0.2	10	<0.4	21	29	100	0.1	3	290	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP02	16/12/2021	1.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	4	<0.4	30	2	8	<0.1	1	38	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP03	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	8	<0.4	22	10	16	<0.1	2	88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP03	16/12/2021	1.3	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	20	<1	2	<0.1	<1	3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP04	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	18	9	10	<0.1	1	66	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP04	16/12/2021	1.4	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	24	<1	2	<0.1	<1	6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP05	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	18	3	9	<0.1	<1	24	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP06	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	11	<1	2	<0.1	<1	5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP06	16/12/2021	0.6	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	19	2	4	<0.1	<1	10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP07	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	10	3	10	<0.1	<1	21	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP07	16/12/2021	0.5	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	11	1	2	<0.1	<1	3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP08	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	18	<1	4	<0.1	<1	4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP09	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	9	<0.4	14	6	10	<0.1	2	42	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP09	16/12/2021	0.5	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	13	<1	4	<0.1	1	6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP10	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	14	<1	3	<0.1	1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP11	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	14	3	5	<0.1	<1	19	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP11	16/12/2021	0.9	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	23	<1	2	<0.1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP12	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	17	1	4	<0.1	<1	13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP12	16/12/2021	1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	17	<1	1	<0.1	<1	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP13	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	17	4	9	<0.1	1	54	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP13	16/12/2021	1.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	28	<1	2	<0.1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP14	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	18	11	12	<0.1	1	71	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP14	16/12/2021	0.5	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	24	<1	2	<0.1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP15	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	4	<0.4	28	13	14	<0.1	1	55	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP15	16/12/2021	1.2	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	34	<1	3	<0.1	<1	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP16	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	15	1	22	47	160	0.1	4	800	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP17	16/12/2021	0.1	Soil	4.3	4.5	1.8	1.8	22	<4	<0.4	10	11	140	<0.1	2	100	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP17	16/12/2021	0.3	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	16/12/2021	1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	22	<1	3	<0.1	<1	5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP18	16/12/2021	0.1	Soil	<0.1	0.1	<0.5	<0.5	0.2	<4	<0.4	13	8	13	<0.1	2	15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP18	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19	16/12/2021	0.1	Soil	<0.1	0.1	<0.5	<0.5	0.2	10	0.7	32	10	51	0.8	7	2,300	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP19	16/12/2021	0.3	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	18	2	9	<0.1	1	66	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP20	16/12/2021	0.1	Soil	<0.1	0.2	<0.5	<0.5	0.4	6	<0.4	15	12	27	<0.1	1	160	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP21	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	5	<0.4	21	12	20	0.1	2	85	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP21	16/12/2021	0.4	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	26	1	3	<0.1	1	12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP22	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	14	4	7	<0.1	1	28	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP23	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	20	3	13	<0.1	1	34	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP23	16/12/2021	0.4	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	14	<1	2	<0.1	<1	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP24	16/12/2021	0.1	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	6	<0.4	17	2	6	<0.1	<1	18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP25	16/12/2021	0.1	Soil	<0.1	0.1	<0.5	<0.5	0.3	<4	<0.4	8	1	7	<0.1	<1	9	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP25	16/12/2021	0.5	Soil	<0.1	<0.1	<0.5	<0.5	<0.05	<4	<0.4	15	<1	3	<0.1	<1	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Due Dilligence Environmental
Site Assessment
40 Myoora Road, Terrey Hills, NSW
21385RP01_v1

Table 1 - Soil Results Summary

REDITUS

				Organophosphorous Pesticides											PCBs								PFAS													
				Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Tonnel	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluorohexanoic acid (PFHxA)	Perfluoropentanoic acid (PFPeA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorononanoic acid (PFNA)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0001	0.0002	0.0001	0.0001	0.0005	0.0005	0.0001
NEPM 2013 Table 1A(1) HILs Res A Soil						160																	1[#5]													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																				
>=0m, <1m																																				
>=1m, <2m																																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																				
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil >=0m, <2m																																				
PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)																																		0.1		
PFAS NEMP 2020 Ecological direct exposure																												1						10		
PFAS NEMP 2020 Ecological indirect exposure																												0.01								
Field ID	Date	Depth (m)	Matrix Type																																		
TP01	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.0001	<0.0001	<0.0001	<0.0001	**0.0004**	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP01	16/12/2021	1.2	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	**0.0001**	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP02	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	**0.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	16/12/2021	1.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	16/12/2021	1.3	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	16/12/2021	1.4	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	16/12/2021	0.6	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	16/12/2021	0.9	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	16/12/2021	1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	16/12/2021	1.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	**0.0006**	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP14	16/12/2021	0.5	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP15	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15	16/12/2021	1.2	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	**0.0002**	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP17	16/12/2021	0.3	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP17	16/12/2021	1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP18	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP19	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	**0.0009**	<0.0002	**0.0002**	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP19	16/12/2021	0.3	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0001	<0.0001	<0.0001	<0.0001	**0.0003**	<0.0002	**0.0002**	<0.0001	<0.0002	<0.0001	<0.0001	<0.0005	<0.0005	<0.0001
TP20	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	**0.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21	16/12/2021	0.4	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP22	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP23	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP23	16/12/2021	0.4	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP24	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25	16/12/2021	0.1	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Due Dilligence Environmental
Site Assessment
40 Myoora Road, Terrey Hills, NSW
21385RP01_v1

Table 1 - Soil Results Summary

				PFAS																
				Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFHxS and PFOS	Sum of PFAS	Sum of PFAS (PFOS + PFOA)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.005	0.0005	0.0005	0.0001	0.0001	0.0002	0.0002	0.001	0.001	0.0002	0.001	0.001	0.0002	0.005	0.0001	0.0001	0.0001
NEPM 2013 Table 1A(1) HILs Res A Soil																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																				
>=0m, <1m																				
>=1m, <2m																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																				
NEPM 2013 Table 1B(5) Generic EIL - Urban Res & Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil >=0m, <2m																				
PFAS NEMP 2020 Residential with garden/accessible soil (HIL A)																		0.007[#13]		
PFAS NEMP 2020 Ecological direct exposure																				
PFAS NEMP 2020 Ecological indirect exposure																				
Field ID	**Date**	**Depth (m)**	**Matrix Type**																	
TP01	16/12/2021	0.1	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	**0.0004**	**0.0004**	**0.0004**
TP01	16/12/2021	1.2	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	**0.0001**	**0.0001**	**0.0001**
TP02	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	16/12/2021	1.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	16/12/2021	1.3	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	16/12/2021	1.4	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	16/12/2021	0.6	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	16/12/2021	0.9	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	16/12/2021	1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	16/12/2021	1.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14	16/12/2021	0.1	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	**0.0006**	**0.0006**	**0.0006**
TP14	16/12/2021	0.5	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	<0.0001	<0.0001	<0.0001
TP15	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15	16/12/2021	1.2	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	16/12/2021	0.1	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	**0.0002**	**0.0002**	**0.0002**
TP17	16/12/2021	0.3	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	<0.0001	<0.0001	<0.0001
TP17	16/12/2021	1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18	16/12/2021	0.1	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	<0.0001	<0.0001	<0.0001
TP18	16/12/2021	0.5	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	<0.0001	<0.0001	<0.0001
TP19	16/12/2021	0.1	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	**0.0009**	**0.0011**	**0.0009**
TP19	16/12/2021	0.3	Soil	<0.005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	**0.0003**	**0.0006**	**0.0003**
TP20	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21	16/12/2021	0.4	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP22	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP23	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP23	16/12/2021	0.4	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP24	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25	16/12/2021	0.1	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP25	16/12/2021	0.5	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Table 2 - Asbestos Results Summary

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				Asbestos Fines and Fibrous Asbestos				ACM		
				Sample Mass	Asbestos Trace Analysis	FA and AF	FA and AF	ACM (>7mm) Weight	ACM (>7mm)	Result
				g	-	g	%w/w	g	%w/w	-
				0.01			0.001	0.01	0.001	
Guidelines										
NEPC (2013) NEPM HIL-A Residential Land Use							**0.001**		**0.01**	
Sample ID	**Date**	**Target Depth (m)**	**Matrix Description**							
PACM-Eaves		-	Fibre Cement	-	-	-	-	-	-	**AD[#2]**
PACM-Shed		-	Fibre Cement	-	-	-	-	-	-	**AD[#2]**
PACM-UH		-	Fibre Cement	-	-	-	-	-	-	**AD[#1]**
TP02-0-0.3-PACM		**0 - 0.3**	Fibre Cement from 10L Sample	-	-	-	-	2.6	0.0024	**AD[#2]**
TP04-0.1-PACM		**0.1**	Fibre Cement from 10L Sample	-	-	-	-	4.4	0.0040	**AD[#2]**
TP01		**0.1**	500ml Soil	486.09	No trace asbestos detected	-	<0.001	-	-	-
TP02		**0.1**	500ml Soil	517.32	No trace asbestos detected	-	<0.001	-	-	-
TP03		**0.1**	500ml Soil	609.44	No trace asbestos detected	-	<0.001	-	-	-
TP04		**0.1**	500ml Soil	644.39	No trace asbestos detected	-	<0.001	-	-	-
TP05		**0.1**	500ml Soil	630.91	No trace asbestos detected	-	<0.001	-	-	-
TP06		**0.1**	500ml Soil	674.19	No trace asbestos detected	-	<0.001	-	-	-
TP07		**0.1**	500ml Soil	576.39	No trace asbestos detected	-	<0.001	-	-	-
TP08		**0.1**	500ml Soil	714.1	No trace asbestos detected	-	<0.001	-	-	-
TP09		**0.1**	500ml Soil	474.31	No trace asbestos detected	-	<0.001	-	-	-
TP10	**16.12.2021**	**0.1**	500ml Soil	555.76	No trace asbestos detected	-	<0.001	-	-	-
TP11		**0.1**	500ml Soil	592.02	No trace asbestos detected	-	<0.001	-	-	-
TP12		**0.1**	500ml Soil	640.13	No trace asbestos detected	-	<0.001	-	-	-
TP13		**0.1**	500ml Soil	589.65	No trace asbestos detected	-	<0.001	-	-	-
TP14		**0.1**	500ml Soil	585.83	No trace asbestos detected	-	<0.001	-	-	-
TP15		**0.1**	500ml Soil	733.41	No trace asbestos detected	0.0008	***<0.001*** *[#3]*	-	-	*AD below LOR [#3]*
TP16		**0.1**	500ml Soil	343.15	No trace asbestos detected	-	<0.001	-	-	-
TP17		**0.1**	500ml Soil	452.69	No trace asbestos detected	-	<0.001	-	-	-
TP18		**0.1**	500ml Soil	679.66	No trace asbestos detected	-	<0.001	-	-	-
TP19		**0.1**	500ml Soil	471.19	No trace asbestos detected	-	<0.001	0.1181	-	**AD[#1]**
TP20		**0.1**	500ml Soil	518.11	No trace asbestos detected	-	<0.001	-	-	-
TP21		**0.1**	500ml Soil	607.85	No trace asbestos detected	-	<0.001	-	-	-
TP22		**0.1**	500ml Soil	507.61	No trace asbestos detected	-	<0.001	-	-	-
TP23		**0.1**	500ml Soil	612.62	No trace asbestos detected	-	<0.001	-	-	-
TP24		**0.1**	500ml Soil	662.62	No trace asbestos detected	-	<0.001	-	-	-
TP25		**0.1**	500ml Soil	588.55	No trace asbestos detected	-	<0.001	-	-	-

Note:
Soil density of 1.65g/L adopted
ACM content of 15% adopted

Comments
AD - Asbestos Detected
#1 Chrysotile asbestos detected: Amosite asbestos detected
#2 Chrysotile asbestos detected
#3 Fibrous Asbestos (FA) identified by the laboratory at concentrations below the limit of reporting (<0.001 %w/w)

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Table 3 - Field Duplicate RPD Summary

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				BTEX							TRH								TPH				
				Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	C6-C10 Fraction (F1)	C6-C10 (F1 minus BTEX)	>C10-C16 Fraction (F2)	>C10-C16 Fraction (F2 minus Naphthalene)	>C16-C34 Fraction (F3)	>C34-C40 Fraction (F4)	>C10-C40 Fraction (Sum)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.1	0.1	0.1	0.2	0.1	0.3	20	20	50	50	100	100	50	20	20	50	50	50
Lab Report Number	**Field ID**	**Date**	**Matrix Type**																			
285645	**TP01**	**16/12/2021**	**Soil**	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
285645	**DUP1**	**16/12/2021**	**Soil**	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
285645	**TP01**	**16/12/2021**	**Soil**	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
852489	**TRIP1**	**16/12/2021**	**Soil**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	**160**	<100	**160**	<20	<20	<50	**130**	**130**
RPD				0	0	0	0	0	0	0	0	0	0	0	46	0	105	0	0	0	26	89
285645	**TP14**	**16/12/2021**	**Soil**	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
285645	**DUP2**	**16/12/2021**	**Soil**	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
285645	**TP14**	**16/12/2021**	**Soil**	<1	<0.2	<0.5	<1	<2	<1	<3	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50
852489	**TRIP2**	**16/12/2021**	**Soil**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 100 (0 - 5 x EQL); 75 (5 - 10 x EQL); 30 (> 10 x EQL))**
*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

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Table 3 - Field Duplicate RPD Summary

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				PAH																	Metals							
				Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.2	0.1	0.1	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	2	0.4	1	1	1	0.1	1	1
Lab Report Number	**Field ID**	**Date**	**Matrix Type**																										
285645	**TP01**	**16/12/2021**	**Soil**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<4	<0.4	**8**	**3**	**12**	<0.1	<1	**27**
285645	**DUP1**	**16/12/2021**	**Soil**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<4	<0.4	**10**	**3**	**15**	<0.1	**1**	**27**
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	22	0	0	0
285645	**TP01**	**16/12/2021**	**Soil**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<4	<0.4	**8**	**3**	**12**	<0.1	<1	**27**
852489	**TRIP1**	**16/12/2021**	**Soil**	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**1.2**	<0.5	<2	<0.4	**9.3**	<5	**15**	<0.1	<5	**32**
RPD				-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	82	0	0	0	15	0	22	0	0	17
285645	**TP14**	**16/12/2021**	**Soil**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<4	<0.4	**24**	<1	**2**	<0.1	<1	<1
285645	**DUP2**	**16/12/2021**	**Soil**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<4	<0.4	**21**	<1	**2**	<0.1	<1	**2**
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	67
285645	**TP14**	**16/12/2021**	**Soil**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<4	<0.4	**24**	<1	**2**	<0.1	<1	<1
852489	**TRIP2**	**16/12/2021**	**Soil**	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**1.2**	<0.5	**3.8**	<0.4	**33**	<5	<5	<0.1	<5	**9.9**
RPD				-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	82	0	0	0	92	0	0	0	0	163

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier ran
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any

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Table 3 - Field Duplicate RPD Summary

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				Organochlorine Pesticides																				Organophosphorous Pesticides							
				4,4-DDE	a-BHC	Aldrin	Dieldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Lab Report Number	**Field ID**	**Date**	**Matrix Type**																													
285645	**TP01**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
285645	**DUP1**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
285645	**TP01**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
852489	**TRIP1**	**16/12/2021**	**Soil**	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
RPD				0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0
285645	**TP14**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
285645	**DUP2**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
285645	**TP14**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
852489	**TRIP2**	**16/12/2021**	**Soil**	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
RPD				0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0

**RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier ran
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any

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Table 3 - Field Duplicate RPD Summary

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						PCBs								
				Fenitrothion	Malathion	Parathion	Ronnel	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Lab Report Number	**Field ID**	**Date**	**Matrix Type**												
285645	**TP01**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
285645	**DUP1**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0
285645	**TP01**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
852489	**TRIP1**	**16/12/2021**	**Soil**	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0
285645	**TP14**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
285645	**DUP2**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0
285645	**TP14**	**16/12/2021**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
852489	**TRIP2**	**16/12/2021**	**Soil**	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0

**RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier ran
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any

Table 4 - Trip Spike/Blank Summary

REDITUS

		Lab Report Number	285645	285645
		Field ID	Trip Blank	Trip Spike
		Date	16/12/2021	16/12/2021
		Matrix Type	Soil	Soil
	Unit	EQL		
BTEX				
Naphthalene (BTEX)	mg/kg	1	<1	-
Benzene	mg/kg	0.2	<0.2	120%
Toluene	mg/kg	0.5	<0.5	122%
Ethylbenzene	mg/kg	1	<1	114%
Xylene (m & p)	mg/kg	2	<2	118%
Xylene (o)	mg/kg	1	<1	117%
Xylene Total	mg/kg	3	<3	-
TRH				
C6-C10 Fraction (F1)	mg/kg	25	<25	-
C6-C10 (F1 minus BTEX)	mg/kg	25	<25	-
>C10-C16 Fraction (F2)	mg/kg	50	<50	-
>C10-C16 Fraction (F2 minus Naphthalene)	mg/kg	50	<50	-
>C16-C34 Fraction (F3)	mg/kg	100	<100	-
>C34-C40 Fraction (F4)	mg/kg	100	<100	-
>C10-C40 Fraction (Sum)	mg/kg	50	<50	-
TPH				
C6-C9 Fraction	mg/kg	25	<25	-
C10-C14 Fraction	mg/kg	50	<50	-
C15-C28 Fraction	mg/kg	100	<100	-
C29-C36 Fraction	mg/kg	100	<100	-
C10-C36 Fraction (Sum)	mg/kg	50	<50	-

Appendix C – Test Pit Logs

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ENVIRONMENTAL TEST PIT TP01

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.2 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP01 - 0.1 DUP1 & TRIP1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres.	Topsoil with grass cover
		NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
0.5	TP01 - 0.5				
1	TP01 - 1.2				
				End of Test Pit @ 1.2 m Refusal on Ironstone	
1.5					
2					
2.5					

ENVIRONMENTAL TEST PIT TP02

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.1 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP02 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres with ceramic and metal	Topsoil with grass cover PACM identified in 10L bucket (TP01 - 0 - 0.3 - PACM1) Redundant pipes in top soil.
	TP02 - 0.4	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
0.5					
1	TP02 - 1.1				
				End of Test Pit @ 1.1 m	
1.5					
2					
2.5					

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ENVIRONMENTAL TEST PIT TP03

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.8 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP03 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	Topsoil with grass cover
0.5	TP03 - 0.4	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
1	TP03 - 1.3				
		ROCK		SANDSTONE: weathered, grey-orange-brown	
1.5					
				End of Test Pit @ 1.8 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP04

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP04 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	Topsoil with grass cover PACM in 10L bucket (TP04 - 0.1 - PACM)
	TP04 - 0.4	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
0.5					
1					
	TP04 - 1.4				Water @ 1.4 m - likely to be perched
1.5				End of Test Pit @ 1.4 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP05

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.2 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP05 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres.	Topsoil with grass cover
	TP05 - 0.4	NATURAL		SILTY CLAYEY SAND: fine-medium grain, slightly moist, poorly sorted, yellow-brown	
0.5	TP05 - 0.9				
1		ROCK		SANDSTONE: weathered, grey mottled orange	
1.5				End of Test Pit @ 1.2 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP06

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
0.5	TP06 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres and bricks	Topsoil with grass cover
	TP06 - 0.6				
1	TP06 - 0.9	NATURAL		SANDY CLAY/XW SANDSTONE: grey, moist, low-medium plasticity	
1.5				End of Test Pit @ 1.4 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP07

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.3 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP07 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	Topsoil with grass cover
0.5	TP07 - 0.5	NATURAL		SILTY CLAYEY SAND: fine-medium grain, slightly moist, poorly sorted, yellow-brown	
	TP07 - 0.8			CLAYEY SAND/XW SANDSTONE: grey, medium to coarse grain, moist	
1					Perched Water at 1. 3 m
				End of Test Pit @ 1.3 m	
1.5					
2					
2.5					

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ENVIRONMENTAL TEST PIT TP08

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.7 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP08 - 0.1	FILL		CLAYEY SAND: medium to coarse grain, poorly sorted, loose, moist, grey-brown, trace metal (aluminium can) and plastic	
	TP08 - 0.4			CLAYEY SAND: fine to coarse grain, poorly sorted, loose, moist, dark grey	
0.5					
1	TP08 - 1.0				
	TP08 - 1.4	NATURAL		CLAYEY SAND: medium to coarse grain, grey, well sorted, moist	
1.5					
				End of Test Pit @ 1.7 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP09

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP09 - 0.1	FILL		5F/1F mixed	
0.5	TP09 - 0.5			SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres.	
	TP09 - 0.9	NATURAL		CLAYEY SAND: medium to coarse grain, grey, well sorted, moist	
1	TP09 - 1.4				
1.5				End of Test Pit @ 1.4 m	
2					
2.5					

ENVIRONMENTAL TEST PIT TP10

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP10 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres and some plastic	
0.5	TP10 - 0.5	NATURAL		CLAYEY SAND: medium to coarse grain, grey, well sorted, moist	
1	TP10 - 1.4				
1.5				End of Test Pit @ 1.4 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP11

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.5 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP11 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres and some plastic	
	TP11 - 0.4	NATURAL		SILTY CLAYEY SAND: fine to medium grain, slightly moist, poorly sorted, yellow-brown	
0.5					
	TP11 - 0.9			CLAYEY SAND/XW SANDSTONE: grey, moist, medium to coarse grain	
1					
1.5				End of Test Pit @ 1.5 m	Perched water at 1.5 m
2					
2.5					

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ENVIRONMENTAL TEST PIT TP12

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP12 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
	TP12 - 0.3	NATURAL		SILTY CLAYEY SAND: fine-medium grain, slightly moist, poorly sorted, pale yellow-brown	
0.5					
1	TP12 - 1.0			CLAYEY SAND/XW SANDSTONE: grey, moist, medium to coarse grain	Perched water at 1.4 m
1.5				End of Test Pit @ 1.4 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP13

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.6 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP13 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
0.5	TP13 - 0.5	NATURAL		SILTY CLAYEY SAND: fine-medium grain, slightly moist, poorly sorted, yellow-brown	
1	TP13 - 1.1				
				CLAYEY SAND/SANDSTONE: weathered, grey mottled orange	
1.5	TP13 - 1.6				Perched water at 1.6 m
				End of Test Pit @ 1.6 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP14

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.5 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP14 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
0.5	TP14 - 0.5 DUP2 & TRIP2	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
1					
1.5	TP14 - 1.5			End of Test Pit @ 1.5 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP15

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.2 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP15 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
0.5	TP15 - 0.5	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
1	TP15 - 1.2				
				End of Test Pit @ 1.2 m	
1.5					
2					
2.5					

ENVIRONMENTAL TEST PIT TP16

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.0 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP16 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres, traces of metal, ceramic and plastic	Topsoil
		NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
0.5	TP16 - 0.3				
1	TP16 - 1.0			End of Test Pit @ 1.0 m	
1.5					
2					
2.5					

ENVIRONMENTAL TEST PIT TP17

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.9 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP17 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres, traces of glass	Topsoil
	TP17 - 0.3	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
0.5					
1	TP17 - 1.0				
1.5					
	TP17 - 1.9				Refusal on Ironstone
2				End of Test Pit @ 1.9 m	
2.5					

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ENVIRONMENTAL TEST PIT TP18

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
0	TP18 - 0.1	FILL		SILTY CLAY: low-medium plasticity, firm, dry, grey mottled orange/red traces of plastic	
0.5	TP18 - 0.5	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
1	TP18 - 1.0				
1.5				End of Test Pit @ 1.9 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP19

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.2 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP19 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	Leaf Cover
	TP19 - 0.3	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
0.5					
1	TP19 - 1.2				
				End of Test Pit @ 1.2 m	
1.5					
2					
2.5					

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ENVIRONMENTAL TEST PIT TP20

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP20 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
	TP20 - 0.4	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
0.5					
1					
	TP20 - 1.4				
1.5				End of Test Pit @ 1.2 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP21

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.6 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP21 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
0.5	TP21 - 0.4	NATURAL		CLAYEY GRAVELLY SAND: poorly sorted, fine-medium grain sand, loose, moist, orange-brown, sub rounded gravels	
1					
1.5	TP21 - 1.5				
				End of Test Pit @ 1.6 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP22

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.4 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP22 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
	TP22 - 0.4	NATURAL		SILTY CLAYEY SAND: fine-medium grain, slightly moist, poorly sorted, yellow-brown	
0.5					
1	TP22 - 1.0			SANDSTONE: weathered, grey mottled orange	
1.5				End of Test Pit @ 1.4 m	
2					
2.5					

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ENVIRONMENTAL TEST PIT TP23

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.3 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP23 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
	TP23 - 0.4	NATURAL		SILTY CLAYEY SAND: fine-medium grain, slightly moist, poorly sorted, pale yellow-brown	
0.5					
	TP23 - 1.0				
1				SANDSTONE: weathered, grey mottled orange	
				End of Test Pit @ 1.3 m	
1.5					
2					
2.5					

REDITUS

ENVIRONMENTAL TEST PIT TP24

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.5 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP24 - 0.1	FILL		SILTY SAND: poorly sorted, fine-medium grain, loose, dry-moist, brown with root fibres	
0.5	TP24 - 0.5	NATURAL		CLAYEY SAND: fine-medium grain, moist, poorly sorted, grey	
1					
1.5	TP24 - 1.5			End of Test Pit @ 1.5 m	Perched water @ 1.5 m
2					
2.5					

REDITUS

ENVIRONMENTAL TEST PIT TP25

PROJECT NUMBER 21385	**DRILLING DATE** 16 December 2021	**COORDINATES**
PROJECT NAME Due Diligence Assessment	**DRILLING COMPANY**	**COORD SYS**
CLIENT Isaac Property	**DRILLER**	**SURFACE ELEVATION**
ADDRESS 40 Myoora Road, Terry Hills NSW	**DRILLING METHOD** Excavator	**LOGGED BY** RK
	TOTAL DEPTH 1.7 m	**CHECKED BY** MB

COMMENTS

Depth (m)	Sample ID	Material Type	Graphic Log	Material Description	Additional Observations
	TP25 - 0.1	FILL		CLAYEY SAND: loose, poorly sorted, fine-coarse sand, dark grey-brown with brick, ceramic, plastic and geofabric	
0.5	TP25 - 0.5	NATURAL		CLAYEY SAND: medium to coarse grain, grey, well sorted, moist	
1					
1.5	TP25 - 1.7				
				End of Test Pit @ 1.7 m	
2					
2.5					

Appendix D – Photo Board

REDITUS	SITE PHOTOGRAPHS	
Client Name **Isaac Property Group**	**Site Location** 40 Myoora Road, Terrey Hills NSW	**Project No.** **21385**

Photo No.	**Date**
1	16.12.21

Description: View of the western portion of the site facing west.

Photo No.	**Date**
2	16.12.21

Description: ACM fibre cement sheeting in the storage building/shed in the south-east of the site.

REDITUS	SITE PHOTOGRAPHS	
Client Name **Isaac Property Group**	**Site Location** 40 Myoora Road, Terrey Hills NSW	**Project No.** **21385**

Photo No.	**Date**
3	16.12.21

Description: View of the storage area shed and overgrown vegetation in the north-west of the site.

Photo No.	**Date**
4	16.12.21

Description: View of the storage area in the north-west of the site.

REDITUS	SITE PHOTOGRAPHS	
Client Name **Isaac Property Group**	**Site Location** 40 Myoora Road, Terrey Hills NSW	**Project No.** **21385**

Photo No.	**Date**
5	16.12.21

Description: Stored items and empty IBC in the north-west of the site.

Photo No.	**Date**
6	16.12.21

Description: Stored building and construction materials in the north-west of the site.

REDITUS	SITE PHOTOGRAPHS	
Client Name **Isaac Property Group**	**Site Location** 40 Myoora Road, Terrey Hills NSW	**Project No.** **21385**

Photo No.	**Date**
7	16.12.21

Description: Stored machinery, parts, LPG gas cylinders, oil cans and materials in the north-west of the site.

Photo No.	**Date**
8	16.12.21

Description: Bonded ACM fibre cement debris on the soil surface within the residential building sub-floor space.

REDITUS	SITE PHOTOGRAPHS	
Client Name **Isaac Property Group**	**Site Location** 40 Myoora Road, Terrey Hills NSW	**Project No.** **21385**

Photo No.	**Date**
9	16.12.21

Description: ACM fragment collected with 10L field screening sample in TP02.

Photo No.	**Date**
10	16.12.21

Description: Typical soil profile encountered within the centre of the site.

REDITUS	SITE PHOTOGRAPHS	
Client Name **Isaac Property Group**	**Site Location** 40 Myoora Road, Terrey Hills NSW	**Project No.** **21385**

Photo No.	**Date**
11	16.12.21

Description: Typical test pit soil profile.

Appendix E – Laboratory Reports

COC @ 2114 16/12/21

CHAIN OF CUSTODY FORM - Client

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ENVIROLAB GROUP
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Melbourne Lab - Envirolab Services
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Adelaide Office - Envirolab Services
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08 7087 6800 | adelaide@envirolab.com.au

Brisbane Office - Envirolab Services
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Darwin Office - Envirolab Services
Unit 7, 17 Willes Rd, Berrimah, NT 0820
08 8967 1201 | darwin@envirolab.com.au

Client: Reditus Consulting	Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma	
Project Mgr: Mathew Burcher	PO No.: 21385
Sampler: Ross Kingswell/ Jack Palma	Envirolab Quote No. :
Address: Suite 1/ 11-15 Gray St, Sutherland NSW	Date results required: standard Or choose: standard ~~/ same day / 1 day / 2 day / 3 day~~ *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 9521 6567 Mob: 0426992391	Additional report format: esdat
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au	Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS (extended suite)	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD									Provide as much information about the sample as you can
1	TP01	0.1	16/12/2021	Soil	x		x	x												
2	TP01	0.5	16/12/2021	Soil							x									
3	TP01	1.2	16/12/2021	Soil	x	x														
4	TP02	0.1	16/12/2021	Soil			x	x												
5	TP02	0.4	16/12/2021	Soil							x									
6	TP02	1.1	16/12/2021	Soil		x														
7	TP03	0.1	16/12/2021	Soil			x	x												
8	TP03	0.4	16/12/2021	Soil							x									
9	TP03	1.3	16/12/2021	Soil		x														
10	TP04	0.1	16/12/2021	Soil		x		x												
11	TP04	0.4	16/12/2021	Soil							x									
12	TP04	1.4	16/12/2021	Soil		x														

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus	Received by (Company): ELS STP	*Lab Use Only*	
Print Name: Jack Palma	Print Name: Christine	Job number: 285645	Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021 5:30 PM	Date & Time: 16/12/21 1740	Temperature: 7°C	Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

CHAIN OF CUSTODY FORM - Client

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National phone number 1300 424 344

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Darwin Office - Envirolab Services
Unit 7, 17 Willes Rd, Berrimah, NT 0820
08 8967 1201 | darwin@envirolab.com.au

Client: Reditus Consulting	Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma	PO No.: 21385
Project Mgr: Mathew Burcher	Envirolab Quote No. :
Sampler: Ross Kingswell/ Jack Palma	Date results required: standard
Address: Suite 1/ 11-15 Gray St, Sutherland NSW	Or choose: standard / ~~same day / 1 day / 2 day / 3 day~~ *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 9521 6567 Mob: 0426992391	Additional report format: esdat
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au	Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD									Provide as much information about the sample as you can
13	TP05	0.1	16/12/2021	Soil		X		X												
14	TP05	0.4	16/12/2021	Soil							X									
15	TP05	0.9	16/12/2021	Soil							X									
16	TP06	0.1	16/12/2021	Soil			X	X												
17	TP06	0.6	16/12/2021	Soil		X														
18	TP06	0.9	16/12/2021	Soil							X									
19	TP07	0.1	16/12/2021	Soil		X		X												
20	TP07	0.5	16/12/2021	Soil		X														
21	TP07	0.8	16/12/2021	Soil							X									
22	TP08	0.1	16/12/2021	Soil		X		X												
23	TP08	0.4	16/12/2021	Soil							X									
24	TP08	1	16/12/2021	Soil							X									
25	TP08	1.4	16/12/2021	Soil							X									

☐ ***Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis***

Relinquished by (Company): Reditus		Received by (Company): ECS STD	Lab Use Only
Print Name: Jack Palma		Print Name: Christina	Job number: 285645 — Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021	5:30 PM	Date & Time: 16/12/21 1740	Temperature: 7°C — Security seal: Intact / Broken / None
Signature:		Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD

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Client: Reditus Consulting	Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma	
Project Mgr: Mathew Burcher	PO No.: 21385
Sampler: Ross Kingswell/ Jack Palma	Envirolab Quote No. :
Address: Suite 1/ 11-15 Gray St, Sutherland NSW	Date results required: standard Or choose: standard ~~/ same day / 1 day / 2 day / 3 day~~ *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 9521 6567 Mob: 0426992391	Additional report format: esdat
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au	Lab Comments:

Sample information					Tests Required														Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD								Provide as much information about the sample as you can
26	TP09	0.1	16/12/2021	Soil		x		x											
27	TP09	0.5	16/12/2021	Soil		x													
28	TP09	0.9	16/12/2021	Soil							x								
29	TP09	1.4	16/12/2021	Soil							x								
30	TP10	0.1	16/12/2021	Soil		x		x											
31	TP10	0.5	16/12/2021	Soil							x								
32	TP10	1.4	16/12/2021	Soil							x								
33	TP11	0.1	16/12/2021	Soil		x		x											
34	TP11	0.4	16/12/2021	Soil							x								
35	TP11	0.9	16/12/2021	Soil		x													
36	TP12	0.1	16/12/2021	Soil		x		x											
37	TP12	0.3	16/12/2021	Soil							x								
38	TP12	1	16/12/2021	Soil		x													

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus	Received by (Company): ECSYD	*Lab Use Only*
Print Name: Jack Palma	Print Name: Christine	Job number: 285645 — Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021 5:30 PM	Date & Time: 16/12/21 1740	Temperature: 7 °C — Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD

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Client: Reditus Consulting	Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma	
Project Mgr: Mathew Burcher	PO No.: 21385
Sampler: Ross Kingswell/ Jack Palma	Envirolab Quote No. :
Address: Suite 1/ 11-15 Gray St, Sutherland NSW	Date results required: standard Or choose: standard ~~/ same day / 1 day / 2 day / 3 day~~ *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 9521 6567 Mob: 0426992391	Additional report format: esdat
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au	Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS (extended suite)	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD									Provide as much information about the sample as you can
39	TP13	0.1	16/12/2021	Soil			x	x												
40	TP13	0.5	16/12/2021	Soil							x									
41	TP13	1.1	16/12/2021	Soil		x														
42	TP13	1.6	16/12/2021	Soil							x									
43	TP14	0.1	16/12/2021	Soil	x	x		x												
44	TP14	0.5	16/12/2021	Soil	x		x													
45	TP14	1.5	16/12/2021	Soil							x									
46	TP15	0.1	16/12/2021	Soil			x	x												
47	TP15	0.5	16/12/2021	Soil							x									
48	TP15	1.2	16/12/2021	Soil		x														
49	TP16	0.1	16/12/2021	Soil		x		x												
50	TP16	0.3	16/12/2021	Soil							x									
51	TP16	1	16/12/2021	Soil							x									

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus	Received by (Company): ECS SYD	Lab Use Only	
Print Name: Jack Palma	Print Name: christina	Job number: 285645	Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021 5:30 PM	Date & Time: ~~16~~ 16/12/21 1740	Temperature: 7°C	Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

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Client: Reditus Consulting	Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma	PO No.: 21385
Project Mgr: Mathew Burcher	Envirolab Quote No. :
Sampler: Ross Kingswell/ Jack Palma	Date results required: standard
Address: Suite 1/ 11-15 Gray St, Sutherland NSW	Or choose: standard ~~/ same day / 1 day / 2 day / 3 day~~ *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 9521 6567 Mob: 0426992391	Additional report format: esdat
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au	Lab Comments:

Sample information					Tests Required														Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS (extended suite)	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD								Provide as much information about the sample as you can
52	TP17	0.1	16/12/2021	Soil	x	x		x											
53	TP17	0.3	16/12/2021	Soil	x														
54	TP17	1	16/12/2021	Soil		x													
55	TP17	1.9	16/12/2021	Soil							x								
56	TP18	0.1	16/12/2021	Soil	x	x		x											
57	TP18	0.5	16/12/2021	Soil	x														
58	TP18	1	16/12/2021	Soil							x								
59	TP18	1.4	16/12/2021	Soil							x								
60	TP19	0.1	16/12/2021	Soil	x	x		x											
61	TP19	0.3	16/12/2021	Soil	x	x													
62	TP19	1.2	16/12/2021	Soil							x								

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus	Received by (Company): ES SYD	*Lab Use Only*	
Print Name: Jack Palma	Print Name: Christine	Job number: 285645	Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021 5:30 PM	Date & Time: 16/12/21 17:40	Temperature: 7°C	Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

CHAIN OF CUSTODY FORM - Client

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National phone number 1300 424 344

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Client: Reditus Consulting	Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma	PO No.: 21385
Project Mgr: Mathew Burcher	Envirolab Quote No. :
Sampler: Ross Kingswell/ Jack Palma	Date results required: standard
Address: Suite 1/ 11-15 Gray St, Sutherland NSW	Or choose: standard ~~/ same day / 1 day / 2 day / 3 day~~ *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 9521 6567 Mob: 0426992391	Additional report format: esdat
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au	Lab Comments:

Sample information					Tests Required														Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD								Provide as much information about the sample as you can
63	TP20	0.1	16/12/2021	Soil			x	x											
64	TP20	0.4	16/12/2021	Soil							x								
65	TP20	1:4	16/12/2021	Soil							x								
66	TP21	0.1	16/12/2021	Soil		x		x											
67	TP21	0.4	16/12/2021	Soil		x													
68	TP21	1.5	16/12/2021	Soil							x								
69	TP22	0.1	16/12/2021	Soil		x		x											
70	TP22	0.4	16/12/2021	Soil							x								
71	TP22	1	16/12/2021	Soil							x								
72	TP23	0.1	16/12/2021	Soil		x		x											
73	TP23	0.4	16/12/2021	Soil		x													
74	TP23	1	16/12/2021	Soil							x								

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus	Received by (Company): ES	Lab Use Only	
Print Name: Jack Palma	Print Name: Christine	Job number: 285645	Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021 5:30 PM	Date & Time: 16/12/21 1740	Temperature: 7°	Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

CHAIN OF CUSTODY FORM - Client

ENVIROLAB GROUP
National phone number 1300 424 344

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Melbourne Lab - Envirolab Services
25 Research Drive, Croydon South, VIC 3136
03 9763 2500 | melbourne@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
08 7087 6800 | adelaide@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
07 3266 9532 | brisbane@envirolab.com.au

Darwin Office - Envirolab Services
Unit 7, 17 Willes Rd, Berrimah, NT 0820
08 8967 1201 | darwin@envirolab.com.au

Client: Reditus Consulting
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma
Project Mgr: Mathew Burcher
Sampler: Ross Kingswell/ Jack Palma
Address: Suite 1/ 11-15 Gray St, Sutherland NSW
Phone: 02 9521 6567 Mob: 0426992391
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au

Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
PO No.: 21385
Envirolab Quote No. :
Date results required: standard
Or choose: standard ~~/ same day / 1 day / 2 day / 3 day~~
Note: Inform lab in advance if urgent turnaround is required - surcharges apply
Additional report format: esdat
Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS (extended suite)	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD									Provide as much information about the sample as you can
75	TP24	0.1	16/12/2021	Soil			x	x												
76	TP24	0.5	16/12/2021	Soil							x									
77	TP24	1.5	16/12/2021	Soil							x									
78	TP25	0.1	16/12/2021	Soil			x	x												
79	TP25	0.5	16/12/2021	Soil		x														
80	TP25	1.7	16/12/2021	Soil							x									
81	DUP1		16/12/2021	Soil			x													
82	DUP2		16/12/2021	Soil			x													
83	DUP3		16/12/2021	Soil							x									
—	TRIP1		16/12/2021	Soil			x													Please forward to eurofins
—	TRIP2		16/12/2021	Soil			x													Please forward to eurofins
84	TRIP3		16/12/2021	Soil							x									

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus
Print Name: Jack Palma
Date & Time: 16/12/2021 5:30 PM
Signature:

Received by (Company): ECSYD
Print Name: Christina
Date & Time: 16/12/21 1740
Signature:

Lab Use Only
Job number: 285645
Temperature: 7°C
Cooling: Ice / Ice pack / None
Security seal: Intact / Broken / None
TAT Req - SAME day / 1 / 2 / 3 / 4 / STD

CHAIN OF CUSTODY FORM - Client

[Copyright and Confidential]

ENVIROLAB GROUP
National phone number 1300 424 344

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
02 9910 6200 | sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt, Myaree, WA 6154
08 9317 2505 | lab@mpl.com.au

Melbourne Lab - Envirolab Services
25 Research Drive, Croydon South, VIC 3136
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Darwin Office - Envirolab Services
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08 8967 1201 | darwin@envirolab.com.au

Client: Reditus Consulting	Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma	
Project Mgr: Mathew Burcher	PO No.: 21385
Sampler: Ross Kingswell/ Jack Palma	Envirolab Quote No. :
Address: Suite 1/ 11-15 Gray St, Sutherland NSW	Date results required: standard Or choose: standard ~~/ same day / 1 day / 2 day / 3 day~~ *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 9521 6567 Mob: 0426992391	Additional report format: esdat
Email: accounts@reditusconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au	Lab Comments:

Sample information					Tests Required															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	Asbestos ID	Fibre cement weight							HOLD	Provide as much information about the sample as you can
85	TP04-0.1-PACM	0.1	16/12/2021	Material							x	x								
86	TP02-0-0.3-PACM	0-0.3	16/12/2021	Material							x	x								
87	PACM - Shed		16/12/2021	Material							x									
88	PACM - UH		16/12/2021	Material							x									
89	PACM - Eaves		16/12/2021	Material							x									
90	TRIP BLANK			Soil					x											
91	TRIP SPIKE			Soil						x										

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus	Received by (Company): ECS SYD	*Lab Use Only*	
Print Name: Jack Palma	Print Name: Christina	Job number: 285645	Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021 5:30 PM	Date & Time: 16/12/21 1740	Temperature: 7°C	Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

COC:

285657

Job File Cover Sheet

Douglas Partners
Geotechnics | Environment | Groundwater

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	209490.00	**Suburb:**	Chittaway Point	**To:**	*Envirolab Services*
Project Manager:	James Rayner	**Order Number:**		**Sampler:** MVB	*12 Ashley St, Chatswood NSW 2067*
Email:	james.rayner@douglaspartners.com.au			**Attn:**	*Sample Receipt*
Turnaround time:	☑ Standard ☐ 72 hour ☐ 48 hour ☐ 24 hour ☐ Same day			**Contact:**	*(02) 9910 6200 samplereceipt@envirolab.com.au*
Prior Storage:	☐ Fridge ☑ Freezer ☐ Shelf	**Do samples contain 'potential' HBM?**	☑ No ☐ Yes(If YES, then handle, transport and store in accordance with FPM HAZID)		

Lab ID	Sample ID: Location / Other ID	Depth From	Depth To	Date Sampled	Sample Type: S - soil W - water	Container Type: G - glass P - plastic	Analytes:											Notes/ Preservation/ Additional Requirements
								Chromium Reducible Sulfur	Aggressivity (Cl, SO4, pH & Resistivity)									
1	1	1.0		29/10/21	S	P		×	×									
2	1	8.7		29/10/21	S	P			×									
3	1	10.3		29/10/21	S	P			×									
4	2	0.1		29/10/21	S	P		×										
5	2	1.5		29/10/21	S	P		×										

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 285657
Date Received: 16/12/21
Time Received: 1030
Received by: CM
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Metals to analyse:			**LAB RECEIPT**
Number of samples in container:	5	**Transported to laboratory by:**	**Lab Ref. No:**
Send results to:	Douglas Partners Pty Ltd		**Received by:** Christine
Address:	Unit 5, 3 Teamster Close, Tuggerah NSW	**Phone:** (02) 4351 1422	**Date & Time:** 17/12/21 1030
Relinquished by:		**Date:** **Signed:**	**Signed:**
Project Manager:	James Rayner	**Order Number:** **Dispatch date:**	*12 Ashley St, Chatswood NSW 2067*

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

CERTIFICATE OF ANALYSIS 285645

Client Details

Client	Reditus Consulting
Attention	Matt Burcher
Address	Shop 1, 29-33 Waratah St, KIRRAWEE, NSW, 2232

Sample Details

Your Reference	**21385- Isaac Property, 40 Myoora Rd, Terry Hill**
Number of Samples	86 Soil, 5 Material
Date samples received	16/12/2021
Date completed instructions received	16/12/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	23/12/2021
Date of Issue	23/12/2021

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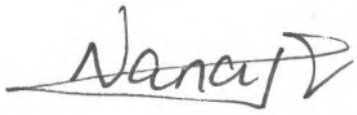
Asbestos Approved By
Analysed by Asbestos Approved Analyst: Nyovan Moonean, Wonnie Condos
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor
Josh Williams, LC Supervisor
Liam Timmins, Chemist
Lucy Zhu, Asbestos Supervisor
Manju Dewendrage, Prep Team Leader
Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-1	285645-3	285645-4	285645-6	285645-7
Your Reference	UNITS	TP01	TP01	TP02	TP02	TP03
Depth		0.1	1.2	0.1	1.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	84	79	100	70	82

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-9	285645-10	285645-12	285645-13	285645-16
Your Reference	UNITS	TP03	TP04	TP04	TP05	TP06
Depth		1.3	0.1	1.4	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	74	82	79	96	88

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-17	285645-19	285645-20	285645-22	285645-26
Your Reference	UNITS	TP06	TP07	TP07	TP08	TP09
Depth		0.6	0.1	0.5	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	82	81	81	85	89

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-27	285645-30	285645-33	285645-35	285645-36
Your Reference	UNITS	TP09	TP10	TP11	TP11	TP12
Depth		0.5	0.1	0.1	0.9	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	84	85	78	83	83

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-38	285645-39	285645-41	285645-43	285645-44
Your Reference	UNITS	TP12	TP13	TP13	TP14	TP14
Depth		1.0	0.1	1.1	0.1	0.5
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	78	89	86	98	82

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-46	285645-48	285645-49	285645-52	285645-54
Your Reference	UNITS	TP15	TP15	TP16	TP17	TP17
Depth		0.1	1.2	0.1	0.1	1.0
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	85	81	67	80	80

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-56	285645-60	285645-61	285645-63	285645-66
Your Reference	UNITS	TP18	TP19	TP19	TP20	TP21
Depth		0.1	0.1	0.3	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	93	100	84	93	88

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-67	285645-69	285645-72	285645-73	285645-75
Your Reference	UNITS	TP21	TP22	TP23	TP23	TP24
Depth		0.4	0.1	0.1	0.4	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	84	72	84	80	77

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285645-78	285645-79	285645-81	285645-82	285645-90
Your Reference	UNITS	TP25	TP25	DUP1	DUP2	Trip Blank
Depth		0.1	0.5	-	-	-
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	77	90	89	77	74

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		285645-91
Your Reference	UNITS	Trip Spike
Depth		-
Date Sampled		16/12/2021
Type of sample		Soil
Date extracted	-	20/12/2021
Date analysed	-	20/12/2021
Benzene	mg/kg	120%
Toluene	mg/kg	122%
Ethylbenzene	mg/kg	114%
m+p-xylene	mg/kg	118%
o-Xylene	mg/kg	117%
Surrogate aaa-Trifluorotoluene	%	74

svTRH (C10-C40) in Soil						
Our Reference		285645-1	285645-3	285645-4	285645-6	285645-7
Your Reference	UNITS	TP01	TP01	TP02	TP02	TP03
Depth		0.1	1.2	0.1	1.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	75	74	74	75	76

svTRH (C10-C40) in Soil						
Our Reference		285645-9	285645-10	285645-12	285645-13	285645-16
Your Reference	UNITS	TP03	TP04	TP04	TP05	TP06
Depth		1.3	0.1	1.4	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	75	76	76	76	76

svTRH (C10-C40) in Soil						
Our Reference		285645-17	285645-19	285645-20	285645-22	285645-26
Your Reference	UNITS	TP06	TP07	TP07	TP08	TP09
Depth		0.6	0.1	0.5	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	80	72	72	71	74

svTRH (C10-C40) in Soil						
Our Reference		285645-27	285645-30	285645-33	285645-35	285645-36
Your Reference	UNITS	TP09	TP10	TP11	TP11	TP12
Depth		0.5	0.1	0.1	0.9	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	71	71	71	71	71

svTRH (C10-C40) in Soil						
Our Reference		285645-38	285645-39	285645-41	285645-43	285645-44
Your Reference	UNITS	TP12	TP13	TP13	TP14	TP14
Depth		1.0	0.1	1.1	0.1	0.5
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	71	72	70	72	72

svTRH (C10-C40) in Soil						
Our Reference		285645-46	285645-48	285645-49	285645-52	285645-54
Your Reference	UNITS	TP15	TP15	TP16	TP17	TP17
Depth		0.1	1.2	0.1	0.1	1.0
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	120	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	120	<50
Surrogate o-Terphenyl	%	72	71	75	76	70

svTRH (C10-C40) in Soil						
Our Reference		285645-56	285645-60	285645-61	285645-63	285645-66
Your Reference	UNITS	TP18	TP19	TP19	TP20	TP21
Depth		0.1	0.1	0.3	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	110	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	110	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	110	<100	120	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	110	<50	120	<50
Surrogate o-Terphenyl	%	71	73	71	76	73

svTRH (C10-C40) in Soil						
Our Reference		285645-67	285645-69	285645-72	285645-73	285645-75
Your Reference	UNITS	TP21	TP22	TP23	TP23	TP24
Depth		0.4	0.1	0.1	0.4	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	72	72	75	71	71

svTRH (C10-C40) in Soil						
Our Reference		285645-78	285645-79	285645-81	285645-82	285645-90
Your Reference	UNITS	TP25	TP25	DUP1	DUP2	Trip Blank
Depth		0.1	0.5	-	-	-
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	72	71	74	72	74

PAHs in Soil						
Our Reference		285645-1	285645-3	285645-4	285645-6	285645-7
Your Reference	UNITS	TP01	TP01	TP02	TP02	TP03
Depth		0.1	1.2	0.1	1.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	0.2	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	100	96	100	94	102

PAHs in Soil						
Our Reference		285645-9	285645-10	285645-12	285645-13	285645-16
Your Reference	UNITS	TP03	TP04	TP04	TP05	TP06
Depth		1.3	0.1	1.4	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	90	116	102	90	93

PAHs in Soil						
Our Reference		285645-17	285645-19	285645-20	285645-22	285645-26
Your Reference	UNITS	TP06	TP07	TP07	TP08	TP09
Depth		0.6	0.1	0.5	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	101	100	104	105	99

PAHs in Soil						
Our Reference		285645-27	285645-30	285645-33	285645-35	285645-36
Your Reference	UNITS	TP09	TP10	TP11	TP11	TP12
Depth		0.5	0.1	0.1	0.9	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	98	101	111	99	102

PAHs in Soil						
Our Reference		285645-38	285645-39	285645-41	285645-43	285645-44
Your Reference	UNITS	TP12	TP13	TP13	TP14	TP14
Depth		1.0	0.1	1.1	0.1	0.5
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	107	113	102	91	96

PAHs in Soil						
Our Reference		285645-46	285645-48	285645-49	285645-52	285645-54
Your Reference	UNITS	TP15	TP15	TP16	TP17	TP17
Depth		0.1	1.2	0.1	0.1	1.0
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	4.3	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.7	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	4.9	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	4.5	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	1.2	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	1.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	1.3	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.6	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.7	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	22	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	1.8	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	1.8	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	1.8	<0.5
Surrogate p-Terphenyl-d14	%	93	89	102	114	99

PAHs in Soil						
Our Reference		285645-56	285645-60	285645-61	285645-63	285645-66
Your Reference	UNITS	TP18	TP19	TP19	TP20	TP21
Depth		0.1	0.1	0.3	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.1	<0.1	0.2	<0.1
Pyrene	mg/kg	0.1	0.1	<0.1	0.2	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.07	<0.05	<0.05	0.06	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.2	0.2	<0.05	0.4	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	85	106	112	112	104

PAHs in Soil						
Our Reference		285645-67	285645-69	285645-72	285645-73	285645-75
Your Reference	UNITS	TP21	TP22	TP23	TP23	TP24
Depth		0.4	0.1	0.1	0.4	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	20/12/2021	20/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	96	110	102	104	102

PAHs in Soil					
Our Reference		285645-78	285645-79	285645-81	285645-82
Your Reference	UNITS	TP25	TP25	DUP1	DUP2
Depth		0.1	0.5	-	-
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.06	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.3	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	105	96	92	108

Organochlorine Pesticides in soil						
Our Reference		285645-1	285645-3	285645-4	285645-6	285645-7
Your Reference	UNITS	TP01	TP01	TP02	TP02	TP03
Depth		0.1	1.2	0.1	1.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Surrogate TCMX	%	88	89	90	88	88

Organochlorine Pesticides in soil						
Our Reference		285645-9	285645-10	285645-12	285645-13	285645-16
Your Reference	UNITS	TP03	TP04	TP04	TP05	TP06
Depth		1.3	0.1	1.4	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	98	88	84	84

Organochlorine Pesticides in soil						
Our Reference		285645-17	285645-19	285645-20	285645-22	285645-26
Your Reference	UNITS	TP06	TP07	TP07	TP08	TP09
Depth		0.6	0.1	0.5	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	87	86	88	91

Organochlorine Pesticides in soil						
Our Reference		285645-27	285645-30	285645-33	285645-35	285645-36
Your Reference	UNITS	TP09	TP10	TP11	TP11	TP12
Depth		0.5	0.1	0.1	0.9	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	89	86	92	83	93

Organochlorine Pesticides in soil						
Our Reference		285645-38	285645-39	285645-41	285645-43	285645-44
Your Reference	UNITS	TP12	TP13	TP13	TP14	TP14
Depth		1.0	0.1	1.1	0.1	0.5
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	95	86	86	80

Organochlorine Pesticides in soil						
Our Reference		285645-46	285645-48	285645-49	285645-52	285645-54
Your Reference	UNITS	TP15	TP15	TP16	TP17	TP17
Depth		0.1	1.2	0.1	0.1	1.0
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	83	86	94	82

Organochlorine Pesticides in soil						
Our Reference		285645-56	285645-60	285645-61	285645-63	285645-66
Your Reference	UNITS	TP18	TP19	TP19	TP20	TP21
Depth		0.1	0.1	0.3	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	81	87	96	94	96

Organochlorine Pesticides in soil						
Our Reference		285645-67	285645-69	285645-72	285645-73	285645-75
Your Reference	UNITS	TP21	TP22	TP23	TP23	TP24
Depth		0.4	0.1	0.1	0.4	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	95	88	91	90

Organochlorine Pesticides in soil					
Our Reference		285645-78	285645-79	285645-81	285645-82
Your Reference	UNITS	TP25	TP25	DUP1	DUP2
Depth		0.1	0.5	-	-
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	89	87	84	89

Organophosphorus Pesticides in Soil						
Our Reference		285645-1	285645-4	285645-7	285645-16	285645-39
Your Reference	UNITS	TP01	TP02	TP03	TP06	TP13
Depth		0.1	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	90	88	84	95

Organophosphorus Pesticides in Soil						
Our Reference		285645-44	285645-46	285645-63	285645-75	285645-78
Your Reference	UNITS	TP14	TP15	TP20	TP24	TP25
Depth		0.5	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	20/12/2021	20/12/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	80	83	94	90	89

Organophosphorus Pesticides in Soil			
Our Reference		285645-81	285645-82
Your Reference	UNITS	DUP1	DUP2
Depth		-	-
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date extracted	-	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021
Dichlorvos	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	84	89

PCBs in Soil						
Our Reference		285645-1	285645-4	285645-7	285645-16	285645-39
Your Reference	UNITS	TP01	TP02	TP03	TP06	TP13
Depth		0.1	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	0.3	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	0.3	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	93	88	84	95

PCBs in Soil						
Our Reference		285645-44	285645-46	285645-63	285645-75	285645-78
Your Reference	UNITS	TP14	TP15	TP20	TP24	TP25
Depth		0.5	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	20/12/2021	20/12/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Surrogate TCMX	%	80	83	94	90	89

PCBs in Soil			
Our Reference		285645-81	285645-82
Your Reference	UNITS	DUP1	DUP2
Depth		-	-
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date extracted	-	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	84	89

Acid Extractable metals in soil						
Our Reference		285645-1	285645-3	285645-4	285645-6	285645-7
Your Reference	UNITS	TP01	TP01	TP02	TP02	TP03
Depth		0.1	1.2	0.1	1.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	<4	10	4	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	31	21	30	22
Copper	mg/kg	3	<1	29	2	10
Lead	mg/kg	12	4	100	8	16
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Nickel	mg/kg	<1	<1	3	1	2
Zinc	mg/kg	27	2	290	38	88

Acid Extractable metals in soil						
Our Reference		285645-9	285645-10	285645-12	285645-13	285645-16
Your Reference	UNITS	TP03	TP04	TP04	TP05	TP06
Depth		1.3	0.1	1.4	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	20	18	24	18	11
Copper	mg/kg	<1	9	<1	3	<1
Lead	mg/kg	2	10	2	9	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	1	<1	<1	<1
Zinc	mg/kg	3	66	6	24	5

Acid Extractable metals in soil						
Our Reference		285645-17	285645-19	285645-20	285645-22	285645-26
Your Reference	UNITS	TP06	TP07	TP07	TP08	TP09
Depth		0.6	0.1	0.5	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	<4	<4	<4	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	19	10	11	18	14
Copper	mg/kg	2	3	1	<1	6
Lead	mg/kg	4	10	2	4	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	<1	<1	<1	2
Zinc	mg/kg	10	21	3	4	42

Acid Extractable metals in soil						
Our Reference		285645-27	285645-30	285645-33	285645-35	285645-36
Your Reference	UNITS	TP09	TP10	TP11	TP11	TP12
Depth		0.5	0.1	0.1	0.9	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	14	14	23	17
Copper	mg/kg	<1	<1	3	<1	1
Lead	mg/kg	4	3	5	2	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	1	<1	<1	<1
Zinc	mg/kg	6	<1	19	<1	13

Acid Extractable metals in soil						
Our Reference		285645-38	285645-39	285645-41	285645-43	285645-44
Your Reference	UNITS	TP12	TP13	TP13	TP14	TP14
Depth		1.0	0.1	1.1	0.1	0.5
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	17	17	28	18	24
Copper	mg/kg	<1	4	<1	11	<1
Lead	mg/kg	1	9	2	12	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	1	<1	1	<1
Zinc	mg/kg	1	54	<1	71	<1

Acid Extractable metals in soil						
Our Reference		285645-46	285645-48	285645-49	285645-52	285645-54
Your Reference	UNITS	TP15	TP15	TP16	TP17	TP17
Depth		0.1	1.2	0.1	0.1	1.0
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	4	<4	15	<4	<4
Cadmium	mg/kg	<0.4	<0.4	1	<0.4	<0.4
Chromium	mg/kg	28	34	22	10	22
Copper	mg/kg	13	<1	47	11	<1
Lead	mg/kg	14	3	160	140	3
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	4	2	<1
Zinc	mg/kg	55	2	800	100	5

Acid Extractable metals in soil						
Our Reference		285645-56	285645-60	285645-61	285645-63	285645-66
Your Reference	UNITS	TP18	TP19	TP19	TP20	TP21
Depth		0.1	0.1	0.3	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	10	<4	6	5
Cadmium	mg/kg	<0.4	0.7	<0.4	<0.4	<0.4
Chromium	mg/kg	13	32	18	15	21
Copper	mg/kg	8	10	2	12	12
Lead	mg/kg	13	51	9	27	20
Mercury	mg/kg	<0.1	0.8	<0.1	<0.1	0.1
Nickel	mg/kg	2	7	1	1	2
Zinc	mg/kg	15	2,300	66	160	85

Acid Extractable metals in soil						
Our Reference		285645-67	285645-69	285645-72	285645-73	285645-75
Your Reference	UNITS	TP21	TP22	TP23	TP23	TP24
Depth		0.4	0.1	0.1	0.4	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	<4	<4	<4	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	26	14	20	14	17
Copper	mg/kg	1	4	3	<1	2
Lead	mg/kg	3	7	13	2	6
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	1	1	<1	<1
Zinc	mg/kg	12	28	34	2	18

Acid Extractable metals in soil						
Our Reference		285645-78	285645-79	285645-81	285645-82	285645-92
Your Reference	UNITS	TP25	TP25	DUP1	DUP2	TP06 - [TRIPLICATE]
Depth		0.1	0.5	-	-	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	15	10	21	10
Copper	mg/kg	1	<1	3	<1	<1
Lead	mg/kg	7	3	15	2	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	<1	1	<1	<1
Zinc	mg/kg	9	2	27	2	5

Moisture						
Our Reference		285645-1	285645-3	285645-4	285645-6	285645-7
Your Reference	UNITS	TP01	TP01	TP02	TP02	TP03
Depth		0.1	1.2	0.1	1.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	13	11	14	14	13

Moisture						
Our Reference		285645-9	285645-10	285645-12	285645-13	285645-16
Your Reference	UNITS	TP03	TP04	TP04	TP05	TP06
Depth		1.3	0.1	1.4	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	18	9.7	18	14	12

Moisture						
Our Reference		285645-17	285645-19	285645-20	285645-22	285645-26
Your Reference	UNITS	TP06	TP07	TP07	TP08	TP09
Depth		0.6	0.1	0.5	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	14	11	13	10	15

Moisture						
Our Reference		285645-27	285645-30	285645-33	285645-35	285645-36
Your Reference	UNITS	TP09	TP10	TP11	TP11	TP12
Depth		0.5	0.1	0.1	0.9	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	12	10	11	15	13

Moisture						
Our Reference		285645-38	285645-39	285645-41	285645-43	285645-44
Your Reference	UNITS	TP12	TP13	TP13	TP14	TP14
Depth		1.0	0.1	1.1	0.1	0.5
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	15	12	18	12	16

Moisture						
Our Reference		285645-46	285645-48	285645-49	285645-52	285645-53
Your Reference	UNITS	TP15	TP15	TP16	TP17	TP17
Depth		0.1	1.2	0.1	0.1	0.3
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	12	16	20	14	9.6

Moisture						
Our Reference		285645-54	285645-56	285645-57	285645-60	285645-61
Your Reference	UNITS	TP17	TP18	TP18	TP19	TP19
Depth		1.0	0.1	0.5	0.1	0.3
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	9.6	14	7.8	17	15

Moisture						
Our Reference		285645-63	285645-66	285645-67	285645-69	285645-72
Your Reference	UNITS	TP20	TP21	TP21	TP22	TP23
Depth		0.1	0.1	0.4	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	14	11	12	9.6	11

Moisture						
Our Reference		285645-73	285645-75	285645-78	285645-79	285645-81
Your Reference	UNITS	TP23	TP24	TP25	TP25	DUP1
Depth		0.4	0.1	0.1	0.5	-
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	10	12	14	14	16

Moisture		
Our Reference		285645-82
Your Reference	UNITS	DUP2
Depth		-
Date Sampled		16/12/2021
Type of sample		Soil
Date prepared	-	20/12/2021
Date analysed	-	21/12/2021
Moisture	%	14

PFAS in Soils Extended						
Our Reference		285645-1	285645-3	285645-43	285645-44	285645-52
Your Reference	UNITS	TP01	TP01	TP14	TP14	TP17
Depth		0.1	1.2	0.1	0.5	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Perfluorobutanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	0.4	0.1	0.6	<0.1	0.2
Perfluorodecanesulfonic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	µg/kg	<5	<5	<5	<5	<5
4:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	110	116	116	108	109
Surrogate $^{13}C_2$ *PFOA*	%	116	122	110	120	118
Extracted ISTD $^{13}C_3$ *PFBS*	%	103	97	102	98	102
Extracted ISTD $^{18}O_2$ *PFHxS*	%	99	93	99	97	99
Extracted ISTD $^{13}C_4$ *PFOS*	%	94	91	94	94	96

PFAS in Soils Extended						
Our Reference		285645-1	285645-3	285645-43	285645-44	285645-52
Your Reference	UNITS	TP01	TP01	TP14	TP14	TP17
Depth		0.1	1.2	0.1	0.5	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	90	92	94	90	93
Extracted ISTD $^{13}C_3$ *PFPeA*	%	102	98	101	96	100
Extracted ISTD $^{13}C_2$ *PFHxA*	%	92	88	92	88	96
Extracted ISTD $^{13}C_4$ *PFHpA*	%	94	93	97	90	94
Extracted ISTD $^{13}C_4$ *PFOA*	%	102	96	104	95	101
Extracted ISTD $^{13}C_5$ *PFNA*	%	91	84	91	87	90
Extracted ISTD $^{13}C_2$ *PFDA*	%	103	104	105	104	100
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	93	98	106	94	101
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	69	79	78	81	82
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	100	102	106	95	107
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	100	85	92	84	89
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	122	105	116	95	105
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	111	92	105	83	101
Extracted ISTD $^{13}C_8$ *FOSA*	%	86	96	96	97	98
Extracted ISTD d_3 *N MeFOSA*	%	88	92	93	88	91
Extracted ISTD d_5 *N EtFOSA*	%	85	88	87	89	92
Extracted ISTD d_7 *N MeFOSE*	%	97	103	108	110	112
Extracted ISTD d_9 *N EtFOSE*	%	90	97	96	98	97
Extracted ISTD d_3 *N MeFOSAA*	%	95	86	98	77	96
Extracted ISTD d_5 *N EtFOSAA*	%	86	92	100	88	105
Total Positive PFHxS & PFOS	µg/kg	0.4	0.1	0.6	<0.1	0.2
Total Positive PFOS & PFOA	µg/kg	0.4	0.1	0.6	<0.1	0.2
Total Positive PFAS	µg/kg	0.4	0.1	0.6	<0.1	0.2

PFAS in Soils Extended						
Our Reference		285645-53	285645-56	285645-57	285645-60	285645-61
Your Reference	UNITS	TP17	TP18	TP18	TP19	TP19
Depth		0.3	0.1	0.5	0.1	0.3
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Perfluorobutanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	<0.1	<0.1	<0.1	0.9	0.3
Perfluorodecanesulfonic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	µg/kg	<0.2	<0.2	<0.2	0.2	0.2
Perfluoropentanoic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorononanoic acid	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	µg/kg	<5	<5	<5	<5	<5
4:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	108	110	110	105	109
Surrogate $^{13}C_2$ *PFOA*	%	113	117	117	114	114
Extracted ISTD $^{13}C_3$ *PFBS*	%	98	96	104	97	95
Extracted ISTD $^{18}O_2$ *PFHxS*	%	95	96	98	99	98
Extracted ISTD $^{13}C_4$ *PFOS*	%	97	90	97	95	96

PFAS in Soils Extended						
Our Reference		285645-53	285645-56	285645-57	285645-60	285645-61
Your Reference	UNITS	TP17	TP18	TP18	TP19	TP19
Depth		0.3	0.1	0.5	0.1	0.3
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	92	84	93	90	94
Extracted ISTD $^{13}C_3$ *PFPeA*	%	103	92	105	100	99
Extracted ISTD $^{13}C_2$ *PFHxA*	%	94	85	93	90	89
Extracted ISTD $^{13}C_4$ *PFHpA*	%	95	83	91	91	91
Extracted ISTD $^{13}C_4$ *PFOA*	%	99	95	102	100	101
Extracted ISTD $^{13}C_5$ *PFNA*	%	91	83	92	86	91
Extracted ISTD $^{13}C_2$ *PFDA*	%	102	97	100	99	101
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	98	91	105	94	101
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	88	79	93	52	65
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	99	94	109	79	96
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	85	76	92	90	87
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	94	89	102	127	107
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	86	80	98	107	99
Extracted ISTD $^{13}C_8$ *FOSA*	%	98	96	100	79	90
Extracted ISTD d_3 *N MeFOSA*	%	92	87	94	77	86
Extracted ISTD d_5 *N EtFOSA*	%	91	85	95	68	80
Extracted ISTD d_7 *N MeFOSE*	%	113	110	112	85	101
Extracted ISTD d_9 *N EtFOSE*	%	103	98	103	79	91
Extracted ISTD d_3 *N MeFOSAA*	%	86	75	89	81	93
Extracted ISTD d_5 *N EtFOSAA*	%	88	81	95	84	99
Total Positive PFHxS & PFOS	µg/kg	<0.1	<0.1	<0.1	0.9	0.3
Total Positive PFOS & PFOA	µg/kg	<0.1	<0.1	<0.1	0.9	0.3
Total Positive PFAS	µg/kg	<0.1	<0.1	<0.1	1.1	0.6

Asbestos ID - soils NEPM - ASB-001						
Our Reference		285645-1	285645-4	285645-7	285645-10	285645-13
Your Reference	UNITS	TP01	TP02	TP03	TP04	TP05
Depth		0.1	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	23/12/2021	23/12/2021	23/12/2021	23/12/2021	23/12/2021
Sample mass tested	g	486.09	517.32	609.44	644.39	630.91
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM - ASB-001						
Our Reference		285645-16	285645-19	285645-22	285645-26	285645-30
Your Reference	UNITS	TP06	TP07	TP08	TP09	TP10
Depth		0.1	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	23/12/2021	23/12/2021	23/12/2021	23/12/2021	23/12/2021
Sample mass tested	g	674.19	576.39	714.1	474.31	555.76
Sample Description	-	Beige fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM - ASB-001						
Our Reference		285645-33	285645-36	285645-39	285645-43	285645-46
Your Reference	UNITS	TP11	TP12	TP13	TP14	TP15
Depth		0.1	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	23/12/2021	23/12/2021	23/12/2021	23/12/2021	23/12/2021
Sample mass tested	g	592.02	640.13	589.65	585.83	733.41
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	Amosite
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	0.0008
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM - ASB-001						
Our Reference		285645-49	285645-52	285645-56	285645-60	285645-63
Your Reference	UNITS	TP16	TP17	TP18	TP19	TP20
Depth		0.1	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	23/12/2021	23/12/2021	23/12/2021	23/12/2021	23/12/2021
Sample mass tested	g	343.15	452.69	679.66	471.19	518.11
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected Synthetic mineral fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	Chrysotile asbestos detected Amosite asbestos detected Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1	0.2507	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	See Above	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	0.1181	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	0.0251	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM - ASB-001						
Our Reference		285645-66	285645-69	285645-72	285645-75	285645-78
Your Reference	UNITS	TP21	TP22	TP23	TP24	TP25
Depth		0.1	0.1	0.1	0.1	0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	23/12/2021	23/12/2021	23/12/2021	23/12/2021	23/12/2021
Sample mass tested	g	607.85	507.61	612.62	662.62	588.55
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - materials						
Our Reference		285645-85	285645-86	285645-87	285645-88	285645-89
Your Reference	UNITS	TP04-0.1-PACM	TP02-0-0.3-PACM	PACM-Shed	PACM-UH	PACM-Eaves
Depth		0.1	0-0.3	-	-	-
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Material	Material	Material	Material	Material
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Mass / Dimension of Sample	-	2.60g	4.40g	60x30x5mm	80x50x5mm	100x95x5mm
Sample Description	-	Beige fibre cement material	Beige fibre cement material	Beige fibre cement material	Beige fibre cement material	Beige fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected	Chrysotile asbestos detected	Chrysotile asbestos detected	Chrysotile asbestos detected	Chrysotile asbestos detected Amosite asbestos detected
Trace Analysis	-	[NT]	[NT]	[NT]	[NT]	[NT]

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.

Method ID	Methodology Summary
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-4
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	78	84
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	78	84
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	86	90
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	74	83
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	73	78
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	79	85
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	70	70
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	81	1	84	81	4	72	88

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	285645-43
Date extracted	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	16	<25	<25	0	97	82
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	16	<25	<25	0	97	82
Benzene	mg/kg	0.2	Org-023	[NT]	16	<0.2	<0.2	0	112	92
Toluene	mg/kg	0.5	Org-023	[NT]	16	<0.5	<0.5	0	95	75
Ethylbenzene	mg/kg	1	Org-023	[NT]	16	<1	<1	0	86	76
m+p-xylene	mg/kg	2	Org-023	[NT]	16	<2	<2	0	95	84
o-Xylene	mg/kg	1	Org-023	[NT]	16	<1	<1	0	77	70
Naphthalene	mg/kg	1	Org-023	[NT]	16	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	16	88	79	11	105	79

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	285645-82
Date extracted	-			[NT]	41	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	41	20/12/2021	20/12/2021		20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	41	<25	<25	0	92	114
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	41	<25	<25	0	92	114
Benzene	mg/kg	0.2	Org-023	[NT]	41	<0.2	<0.2	0	103	112
Toluene	mg/kg	0.5	Org-023	[NT]	41	<0.5	<0.5	0	86	95
Ethylbenzene	mg/kg	1	Org-023	[NT]	41	<1	<1	0	83	111
m+p-xylene	mg/kg	2	Org-023	[NT]	41	<2	<2	0	93	125
o-Xylene	mg/kg	1	Org-023	[NT]	41	<1	<1	0	79	104
Naphthalene	mg/kg	1	Org-023	[NT]	41	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	41	86	78	10	92	84

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	54	20/12/2021	20/12/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	54	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	54	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	54	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	54	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	54	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	54	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	54	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	54	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	54	80	92	14	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	81	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	81	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	81	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	81	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	81	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	81	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	81	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	81	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	81	89	83	7	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	285645-4
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			21/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	88	82
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	84	89
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	91	111
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	88	82
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	84	89
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	91	111
Surrogate o-Terphenyl	%		Org-020	76	1	75	76	1	82	80

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	285645-43
Date extracted	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	16	<50	<50	0	89	83
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	83	83
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	91	130
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	16	<50	<50	0	89	83
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	83	83
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	16	<100	<100	0	91	130
Surrogate o-Terphenyl	%		Org-020	[NT]	16	76	78	3	82	79

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	285645-82
Date extracted	-			[NT]	41	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	41	20/12/2021	20/12/2021		21/12/2021	21/12/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	41	<50	<50	0	90	82
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	41	<100	<100	0	88	81
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	41	<100	<100	0	127	97
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	41	<50	<50	0	90	82
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	41	<100	<100	0	88	81
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	41	<100	<100	0	127	97
Surrogate o-Terphenyl	%		Org-020	[NT]	41	70	70	0	84	78

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	54	20/12/2021	21/12/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	54	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	54	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	54	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	54	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	54	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	54	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	54	70	71	1	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	81	21/12/2021	21/12/2021		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	81	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	81	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	81	<100	110	10	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	81	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	81	<100	110	10	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	81	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	81	74	73	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-4
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			21/12/2021	1	21/12/2021	21/12/2021		21/12/2021	21/12/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	90
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	97	89
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	90
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	104	99
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	87
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	101	94
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	71	69
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.05	<0.05	0	118	110
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	123	1	100	102	2	115	105

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	285645-43
Date extracted	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	16	21/12/2021	21/12/2021		21/12/2021	21/12/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	95	82
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	91	83
Fluorene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	93	82
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	108	96
Anthracene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	96	86
Pyrene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	103	93
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	69	67
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	16	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	16	<0.05	<0.05	0	122	112
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	16	93	110	17	118	100

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	285645-82
Date extracted	-			[NT]	41	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	41	21/12/2021	21/12/2021		20/12/2021	20/12/2021
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	88	86
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	85	85
Fluorene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	88	86
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	100	98
Anthracene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	88	88
Pyrene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	95	95
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	71	85
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	41	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	41	<0.05	<0.05	0	114	126
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	41	102	99	3	108	106

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	54	21/12/2021	21/12/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	0.3	100	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	0.3	100	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	0.3	100	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	54	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	54	<0.05	0.08	46	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	54	99	86	14	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	81	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	81	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	81	92	105	13	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-4
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			21/12/2021	1	21/12/2021	21/12/2021		21/12/2021	21/12/2021
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	88
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	92
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	89
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	91
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	94
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	91
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	90
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	103	102
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	94
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	82	78
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	104	1	88	86	2	100	91

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	285645-43
Date extracted	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	16	21/12/2021	21/12/2021		21/12/2021	21/12/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	92	80
HCB	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	96	85
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	89	81
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	93	85
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	92	88
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	94	81
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	96	88
Endrin	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	102	82
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	92	88
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	78	66
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	16	84	93	10	99	86

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	285645-82
Date extracted	-			[NT]	41	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	41	21/12/2021	21/12/2021		21/12/2021	21/12/2021
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	86	84
HCB	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	89	89
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	91	87
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	89	85
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	88	84
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	88	88
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	92	94
Endrin	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	98	98
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	92	88
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	86	74
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	41	86	84	2	93	90

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	54	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	54	21/12/2021	21/12/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	54	82	79	4	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	81	21/12/2021	21/12/2021		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	81	84	89	6	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-4
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			21/12/2021	1	21/12/2021	21/12/2021		21/12/2021	21/12/2021
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	68	66
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	95
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	95	101
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	118	122
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	108
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	97	107
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	88
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	104	1	88	86	2	100	91

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	285645-82
Date extracted	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	16	21/12/2021	21/12/2021		21/12/2021	20/12/2021
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	72	62
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	99	93
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	93	85
Malathion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	110	120
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	102	94
Parathion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	99	95
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	80	80
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	16	84	93	10	99	90

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date extracted	-			[NT]	81	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			[NT]	81	20/12/2021	20/12/2021		20/12/2021	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	72	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	97	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	87	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	118	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	96	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	89	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	80	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	81	84	89	6	93	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-4
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			21/12/2021	1	21/12/2021	21/12/2021		21/12/2021	21/12/2021
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	94	86
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	104	1	88	86	2	100	91

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	285645-82
Date extracted	-			[NT]	4	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	4	21/12/2021	21/12/2021		21/12/2021	20/12/2021
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	4	0.3	0.4	29	98	84
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	4	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	4	93	98	5	99	90

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date extracted	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			[NT]	16	21/12/2021	21/12/2021		20/12/2021	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	90	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	16	84	93	10	93	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	81	84	89	6	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-4
Date prepared	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			21/12/2021	1	21/12/2021	21/12/2021		21/12/2021	21/12/2021
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	98	98
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	96	87
Chromium	mg/kg	1	Metals-020	<1	1	8	8	0	102	89
Copper	mg/kg	1	Metals-020	<1	1	3	2	40	97	102
Lead	mg/kg	1	Metals-020	<1	1	12	11	9	102	#
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	85	85
Nickel	mg/kg	1	Metals-020	<1	1	<1	<1	0	102	92
Zinc	mg/kg	1	Metals-020	<1	1	27	22	20	98	##

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	285645-43
Date prepared	-			[NT]	16	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	16	21/12/2021	21/12/2021		21/12/2021	21/12/2021
Arsenic	mg/kg	4	Metals-020	[NT]	16	<4	<4	0	104	97
Cadmium	mg/kg	0.4	Metals-020	[NT]	16	<0.4	<0.4	0	102	91
Chromium	mg/kg	1	Metals-020	[NT]	16	11	18	48	107	98
Copper	mg/kg	1	Metals-020	[NT]	16	<1	<1	0	102	104
Lead	mg/kg	1	Metals-020	[NT]	16	2	2	0	107	94
Mercury	mg/kg	0.1	Metals-021	[NT]	16	<0.1	<0.1	0	96	87
Nickel	mg/kg	1	Metals-020	[NT]	16	<1	<1	0	107	95
Zinc	mg/kg	1	Metals-020	[NT]	16	5	3	50	103	95

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	285645-82
Date prepared	-			[NT]	41	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			[NT]	41	21/12/2021	21/12/2021		21/12/2021	21/12/2021
Arsenic	mg/kg	4	Metals-020	[NT]	41	<4	<4	0	103	###
Cadmium	mg/kg	0.4	Metals-020	[NT]	41	<0.4	<0.4	0	100	73
Chromium	mg/kg	1	Metals-020	[NT]	41	28	27	4	105	71
Copper	mg/kg	1	Metals-020	[NT]	41	<1	<1	0	101	80
Lead	mg/kg	1	Metals-020	[NT]	41	2	2	0	104	72
Mercury	mg/kg	0.1	Metals-021	[NT]	41	<0.1	<0.1	0	91	82
Nickel	mg/kg	1	Metals-020	[NT]	41	<1	1	0	105	74
Zinc	mg/kg	1	Metals-020	[NT]	41	<1	<1	0	102	75

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	54	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	54	21/12/2021	21/12/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	54	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	54	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	54	22	25	13	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	54	<1	<1	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	54	3	3	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	54	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	54	<1	<1	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	54	5	4	22	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	81	20/12/2021	20/12/2021		[NT]	[NT]
Date analysed	-			[NT]	81	21/12/2021	21/12/2021		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	81	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	81	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	81	10	9	11	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	81	3	3	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	81	15	15	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	81	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	81	1	<1	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	81	27	27	0	[NT]	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-43
Date prepared	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	20/12/2021
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	102	106
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	93	98
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	105	106
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	120	121
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	1	0.4	0.4	0	100	101
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	87	82
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	108	107
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	93	96
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	96	102
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	101	101
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	97	98
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	97	102
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	103	101
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	97	95
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	101	97
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	1	<0.5	<0.5	0	114	122
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	100	92
4:2 FTS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	105	110
6:2 FTS	µg/kg	0.1	Org-029	<0.1	1	<0.1	<0.1	0	113	107
8:2 FTS	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	100	99
10:2 FTS	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	108	114
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	1	<1	<1	0	106	110
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	1	<1	<1	0	105	110
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	1	<1	<1	0	111	114
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	1	<1	<1	0	102	102
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	1	<5	<5	0	90	96
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	98	102
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	1	<0.2	<0.2	0	94	93
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	116	1	110	110	0	110	116
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	113	1	116	110	5	120	111

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-43
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	105	1	103	100	3	104	98
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	100	1	99	104	5	99	96
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	99	1	94	97	3	99	90
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	100	1	90	94	4	95	93
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	108	1	102	105	3	105	99
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	98	1	92	92	0	94	89
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	98	1	94	93	1	98	92
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	107	1	102	104	2	99	101
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	95	1	91	91	0	97	92
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	106	1	103	110	7	105	103
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	107	1	93	97	4	99	98
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	86	1	69	65	6	86	77
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	110	1	100	101	1	106	105
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	90	1	100	94	6	89	86
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	105	1	122	117	4	98	105
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	99	1	111	111	0	92	99
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	105	1	86	88	2	104	92
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	102	1	88	91	3	98	90
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	99	1	85	87	2	93	89
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	120	1	97	101	4	110	105

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	285645-43
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	113	1	90	94	4	111	94
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	92	1	95	97	2	89	90
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	97	1	86	97	12	95	96

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Acid Extractable Metals in Soil:
- The laboratory RPD acceptance criteria has been exceeded for 285645-16 for Cr. Therefore a triplicate result has been issued as laboratory sample number 285645-92.
- # Percent recovery is not possible to report due to the inhomogeneous nature of the element in the sample. However an acceptable recovery was obtained for the LCS.
- ## Percent recovery is not applicable due to the high concentration of the element in the sample. However an acceptable recovery was obtained for the LCS.
- ### Low spike recovery was obtained for this sample. Sample matrix interference is suspected. However, an acceptable recovery was obtained for the LCS

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Factual description of asbestos identified in the soil samples: NEPM
Sample 285645-46; Amosite asbestos identified in 0.0008g of loose fibre bundles

Sample 285645-60; Chrysotile asbestos identified in 0.7876g of fibre cement material >7mm

CHAIN OF CUSTODY FORM - Client

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Eurofins: [signature] 20/12 3:11pm

Client: Reditus Consulting
Contact Person: Mathew Burcher/Ross Kingswell/Jack Palma
Project Mgr: Mathew Burcher
Sampler: Ross Kingswell/ Jack Palma
Address: Suite 1/ 11-15 Gray St, Sutherland NSW
Phone: 02 9521 6567 Mob: 0426992391
Email: accounts@redituconsulting.com, mathewburcher@reditus.com.au, rosskingswell@reditus.com.au, jackpalma@reditus.com.au

Client Project Name/Number/Site etc (ie report title): Isaac Property, 40 Myoora Rd, Terry Hills
PO No.: 21385
Envirolab Quote No. :
Date results required: standard
Or choose: standard / ~~same day / 1 day / 2 day / 3 day~~
Note: Inform lab in advance if urgent turnaround is required - surcharges apply
Additional report format: esdat
Lab Comments:

Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	PFAS (extended suite)	Combo 14	Combo 6	NEPM Asbestos	TRIP BLANK	TRIP SPIKE	HOLD	Comments (#852489) Provide as much information about the sample as you can
75	TP24	0.1	16/12/2021	Soil			x	x				
76	TP24	0.5	16/12/2021	Soil							x	
77	TP24	1.5	16/12/2021	Soil							x	
78	TP25	0.1	16/12/2021	Soil			x	x				
79	TP25	0.5	16/12/2021	Soil		x						
80	TP25	1.7	16/12/2021	Soil							x	
81	DUP1		16/12/2021	Soil			x					
82	DUP2		16/12/2021	Soil			x					
83	DUP3		16/12/2021	Soil							x	
–	TRIP1		16/12/2021	Soil			x					Please forward to eurofins
–	TRIP2		16/12/2021	Soil			x					Please forward to eurofins
84	TRIP3		16/12/2021	Soil							x	

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Reditus	Received by (Company): ELS SYD	Lab Use Only	
Print Name: Jack Palma	Print Name: Christine	Job number: 285645	Cooling: Ice / Ice pack / None
Date & Time: 16/12/2021 5:30 PM	Date & Time: 16/12/21 1740	Temperature: 7°C	Security seal: Intact / Broken / None
Signature:	Signature: [signature]	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

ELS Syd, K. Lucas, 20/12/21, [signature]

Reditus Consulting Pty Ltd
1/11-15 Gray Street
Sutherland
NSW 2232

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: **Mathew Burcher**

Report **852489-S**
Project name ISAAC PROPERTY 40 MYOORA ROAD TERRY HILLS
Received Date Dec 20, 2021

Client Sample ID			**TRIP1**	**TRIP2**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S21-De52693**	**S21-De52694**
Date Sampled			**Dec 16, 2021**	**Dec 16, 2021**
Test/Reference	LOR	Unit		
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	130	< 50
TRH C10-C36 (Total)	50	mg/kg	130	< 50
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	160	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	160	< 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	%	78	77
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
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			TRIP1	TRIP2
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-De52693	S21-De52694
Date Sampled			Dec 16, 2021	Dec 16, 2021
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
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	%	103	106
p-Terphenyl-d14 (surr.)	1	%	97	110
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	< 0.05
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	< 0.05
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	%	55	97
Tetrachloro-m-xylene (surr.)	1	%	105	109
Organophosphorus Pesticides				
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2
Dimethoate	0.2	mg/kg	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2

Client Sample ID			TRIP1	TRIP2
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-De52693	S21-De52694
Date Sampled			Dec 16, 2021	Dec 16, 2021
Test/Reference	LOR	Unit		
Organophosphorus Pesticides				
EPN	0.2	mg/kg	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	56	93
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	55	97
Tetrachloro-m-xylene (surr.)	1	%	105	109
Heavy Metals				
Arsenic	2	mg/kg	< 2	3.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	9.3	33
Copper	5	mg/kg	< 5	< 5
Lead	5	mg/kg	15	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5
Zinc	5	mg/kg	32	9.9
% Moisture	1	%	16	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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 23, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 23, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 23, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Dec 23, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 23, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Dec 23, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Dec 23, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Dec 23, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Dec 23, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Dec 22, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

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Company Name:	Reditus Consulting Pty Ltd	**Order No.:**	21385	**Received:**	Dec 20, 2021 3:11 PM
Address:	1/11-15 Gray Street Sutherland NSW 2232	**Report #:**	852489	**Due:**	Dec 29, 2021
		Phone:	61 413 177 501	**Priority:**	5 Day
		Fax:		**Contact Name:**	Mathew Burcher
Project Name:	ISAAC PROPERTY 40 MYOORA ROAD TERRY HILLS				

Eurofins Analytical Services Manager : John Nguyen

Sample Detail						Moisture Set	Suite B10B:TRH/BTEXN/PAH/OCP/OPP/PCB/M8
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	TRIP1	Dec 16, 2021		Soil	S21-De52693	X	X
2	TRIP2	Dec 16, 2021		Soil	S21-De52694	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/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.4
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient
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							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	86			70-130	Pass	
TRH C10-C14	%	97			70-130	Pass	
Naphthalene	%	116			70-130	Pass	
TRH C6-C10	%	82			70-130	Pass	
TRH >C10-C16	%	97			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	100			70-130	Pass	
Toluene	%	93			70-130	Pass	
Ethylbenzene	%	92			70-130	Pass	
m&p-Xylenes	%	89			70-130	Pass	
o-Xylene	%	91			70-130	Pass	
Xylenes - Total*	%	90			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	71			70-130	Pass	
Acenaphthylene	%	70			70-130	Pass	
Anthracene	%	71			70-130	Pass	
Benz(a)anthracene	%	81			70-130	Pass	
Benzo(a)pyrene	%	71			70-130	Pass	
Benzo(b&j)fluoranthene	%	72			70-130	Pass	
Benzo(g.h.i)perylene	%	70			70-130	Pass	
Benzo(k)fluoranthene	%	74			70-130	Pass	
Chrysene	%	82			70-130	Pass	
Dibenz(a.h)anthracene	%	74			70-130	Pass	
Fluoranthene	%	70			70-130	Pass	
Fluorene	%	77			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	70			70-130	Pass	
Naphthalene	%	70			70-130	Pass	
Phenanthrene	%	73			70-130	Pass	
Pyrene	%	71			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	70			70-130	Pass	
4.4'-DDD	%	84			70-130	Pass	
4.4'-DDE	%	73			70-130	Pass	
4.4'-DDT	%	84			70-130	Pass	
a-HCH	%	85			70-130	Pass	
Aldrin	%	71			70-130	Pass	
b-HCH	%	70			70-130	Pass	
d-HCH	%	89			70-130	Pass	
Dieldrin	%	90			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan I	%	88			70-130	Pass	
Endosulfan II	%	85			70-130	Pass	
Endosulfan sulphate	%	84			70-130	Pass	
Endrin	%	74			70-130	Pass	
Endrin aldehyde	%	80			70-130	Pass	
Endrin ketone	%	82			70-130	Pass	
g-HCH (Lindane)	%	72			70-130	Pass	
Heptachlor	%	72			70-130	Pass	
Heptachlor epoxide	%	70			70-130	Pass	
Hexachlorobenzene	%	73			70-130	Pass	
Methoxychlor	%	77			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	76			70-130	Pass	
Dimethoate	%	70			70-130	Pass	
Ethion	%	91			70-130	Pass	
Fenitrothion	%	91			70-130	Pass	
Methyl parathion	%	71			70-130	Pass	
Mevinphos	%	70			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	88			70-130	Pass	
Aroclor-1260	%	111			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	88			80-120	Pass	
Cadmium	%	90			80-120	Pass	
Chromium	%	86			80-120	Pass	
Copper	%	85			80-120	Pass	
Lead	%	89			80-120	Pass	
Mercury	%	111			80-120	Pass	
Nickel	%	85			80-120	Pass	
Zinc	%	85			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	S21-De54683	NCP	%	76			70-130	Pass	
Naphthalene	S21-De54683	NCP	%	87			70-130	Pass	
TRH C6-C10	S21-De54683	NCP	%	78			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-De54683	NCP	%	77			70-130	Pass	
Toluene	S21-De54683	NCP	%	75			70-130	Pass	
Ethylbenzene	S21-De54683	NCP	%	74			70-130	Pass	
m&p-Xylenes	S21-De54683	NCP	%	71			70-130	Pass	
o-Xylene	S21-De54683	NCP	%	72			70-130	Pass	
Xylenes - Total*	S21-De54683	NCP	%	71			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S21-De49527	NCP	%	104			70-130	Pass	
Acenaphthylene	S21-De49527	NCP	%	105			70-130	Pass	
Anthracene	S21-De49527	NCP	%	104			70-130	Pass	
Benz(a)anthracene	S21-De49527	NCP	%	96			70-130	Pass	
Benzo(a)pyrene	S21-De49527	NCP	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b&j)fluoranthene	S21-De49527	NCP	%	111			70-130	Pass	
Benzo(g.h.i)perylene	S21-De49527	NCP	%	89			70-130	Pass	
Benzo(k)fluoranthene	S21-De49527	NCP	%	110			70-130	Pass	
Chrysene	S21-De49527	NCP	%	98			70-130	Pass	
Dibenz(a.h)anthracene	S21-De49527	NCP	%	100			70-130	Pass	
Fluoranthene	S21-De49527	NCP	%	103			70-130	Pass	
Fluorene	S21-De49527	NCP	%	112			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S21-De49527	NCP	%	96			70-130	Pass	
Naphthalene	S21-De49527	NCP	%	103			70-130	Pass	
Phenanthrene	S21-De49527	NCP	%	106			70-130	Pass	
Pyrene	S21-De49527	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-De49527	NCP	%	111			70-130	Pass	
4.4'-DDD	S21-De49527	NCP	%	104			70-130	Pass	
4.4'-DDE	S21-De49527	NCP	%	119			70-130	Pass	
4.4'-DDT	S21-De49527	NCP	%	99			70-130	Pass	
a-HCH	S21-De49527	NCP	%	105			70-130	Pass	
Aldrin	S21-De49527	NCP	%	116			70-130	Pass	
b-HCH	S21-De49527	NCP	%	112			70-130	Pass	
d-HCH	S21-De49527	NCP	%	107			70-130	Pass	
Dieldrin	S21-De49527	NCP	%	108			70-130	Pass	
Endosulfan I	S21-De49527	NCP	%	110			70-130	Pass	
Endosulfan II	S21-De49527	NCP	%	103			70-130	Pass	
Endosulfan sulphate	S21-De49527	NCP	%	100			70-130	Pass	
Endrin	S21-De49527	NCP	%	116			70-130	Pass	
Endrin ketone	S21-De49527	NCP	%	100			70-130	Pass	
g-HCH (Lindane)	S21-De49527	NCP	%	112			70-130	Pass	
Heptachlor	S21-De49527	NCP	%	116			70-130	Pass	
Heptachlor epoxide	S21-De49527	NCP	%	111			70-130	Pass	
Hexachlorobenzene	S21-De49527	NCP	%	117			70-130	Pass	
Methoxychlor	S21-De49527	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S21-De49527	NCP	%	118			70-130	Pass	
Dimethoate	S21-De49527	NCP	%	103			70-130	Pass	
Ethion	S21-De49527	NCP	%	98			70-130	Pass	
Fenitrothion	S21-De49527	NCP	%	103			70-130	Pass	
Methyl parathion	S21-De49527	NCP	%	114			70-130	Pass	
Mevinphos	S21-De49527	NCP	%	116			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S21-De49527	NCP	%	108			70-130	Pass	
Aroclor-1260	S21-De49527	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-De53011	NCP	%	102			75-125	Pass	
Cadmium	S21-De53011	NCP	%	99			75-125	Pass	
Chromium	S21-De53011	NCP	%	96			75-125	Pass	
Copper	S21-De53011	NCP	%	91			75-125	Pass	
Lead	S21-De53011	NCP	%	117			75-125	Pass	
Mercury	S21-De53011	NCP	%	98			75-125	Pass	
Nickel	S21-De53011	NCP	%	97			75-125	Pass	
Zinc	S21-De53011	NCP	%	91			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S21-De52694	CP	%	98			70-130	Pass	
TRH >C10-C16	S21-De52694	CP	%	99			70-130	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	S21-De52693	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S21-De52693	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-De52693	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-De52693	CP	mg/kg	130	98	28	30%	Pass	
Naphthalene	S21-De52693	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-De52693	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S21-De52693	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-De52693	CP	mg/kg	160	130	23	30%	Pass	
TRH >C34-C40	S21-De52693	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-De52693	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-De52693	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-De52693	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-De52693	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-De52693	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-De52693	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endosulfan II	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S21-De51655	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toxaphene	S21-De51655	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S21-De49526	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S21-De49526	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S21-De49526	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S21-De49526	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1221	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1232	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1242	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1248	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1254	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1260	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Total PCB*	S21-De51655	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-De52623	NCP	mg/kg	3.3	4.4	28	30%	Pass	
Cadmium	S21-De52623	NCP	mg/kg	< 0.4	0.8	160	30%	Fail	Q15
Chromium	S21-De52623	NCP	mg/kg	19	20	5.0	30%	Pass	
Copper	S21-De52623	NCP	mg/kg	67	72	7.0	30%	Pass	
Lead	S21-De52623	NCP	mg/kg	28	27	5.0	30%	Pass	
Mercury	S21-De52623	NCP	mg/kg	< 0.1	0.1	72	30%	Fail	Q15
Nickel	S21-De52623	NCP	mg/kg	35	38	7.0	30%	Pass	
Zinc	S21-De53010	NCP	mg/kg	29	30	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-De52713	NCP	%	12	12	2.0	30%	Pass	

Comments

Sample Integrity

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

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:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

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.

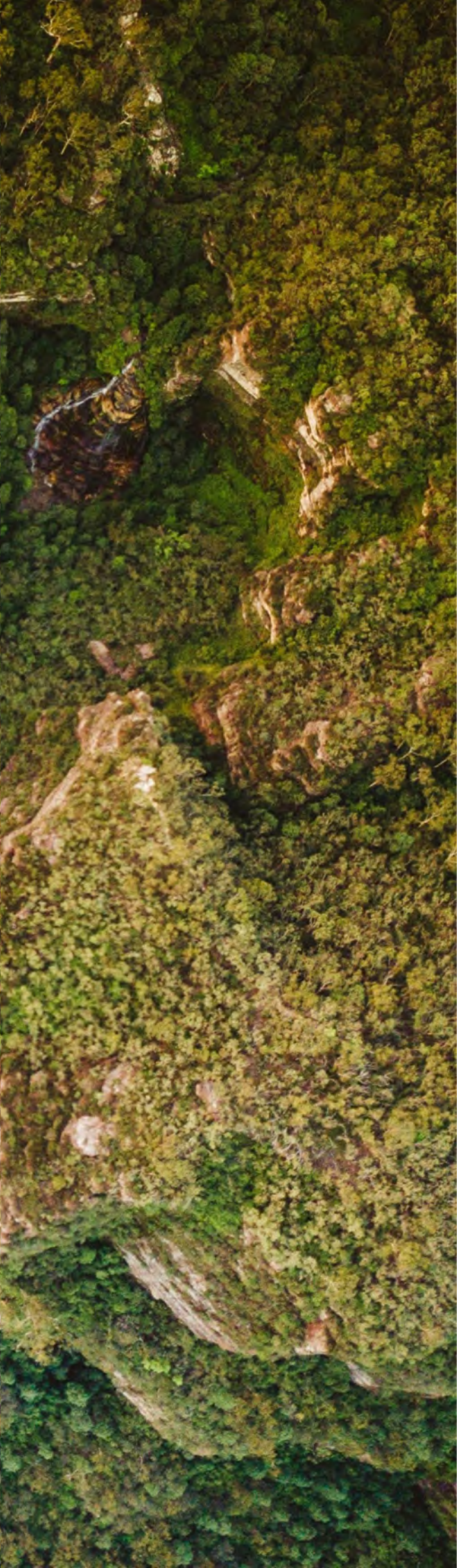
Appendix F – Land Insight and Resources Report

Land Insight

Due Diligence Insight Report

40 Myoora Road
Terrey Hills, NSW

3 December 2021



Understanding your report

Your Report has been produced by Land Insight and Resources (Land Insight).

Your Report is based on information available from public databases and sources at the date of reporting. The information gathered relates to land that is within a 200 to 2000m radius (buffer zone) from the boundaries of the Property. A smaller or larger radius may be applied for certain records (as listed under records and as shown in report maps).

While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information or data provided.

The report provided by Land Insight includes data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact info@liresources.com.au

The report does not include title searches; dangerous good searches or; property certificates (unless requested); or information derived from a physical inspection, such as hazardous building materials, areas of infilling or dumping/spilling of potentially contaminated materials. It is important to note that these documents and an inspection can contain information relevant to contamination that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators the data displayed within this report is only current from date of production.

This Report, and your use of it, is regulated by Land Insight's Terms and Conditions (See Land Insight's Product Guide).

Index

SUMMARY

Section 1	**PROPERTY SETTING**	**Identified**
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography		

Section 2	**HYDROGEOLOGY**	**Identified**
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands		

Section 3	**ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS**	**Identified**
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)		

Section 4	**POTENTIALLY CONTAMINATED AREAS**	**Identified**
Former Potentially Contaminated Land Current and Historical Potentially Contaminating activities (PCA)		

Section 5	**NATURAL HAZARDS**	**Identified**
Erosion risk Bushfire prone land Fire history Flood hazards		

Section 1 Property Setting

1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Category	Distance (m)	Direction
St Anthony in the Fields Catholic Church	Church	142.0	North
Marine Rescue NSW	Public Safety Office	86.0	South-east
NSW State Emergency Service (SES) Warringah Pittwater Unit	Volunteer Organization	114.0	South-east
NSW Rural Fire Service	Firestation - Bush	90.0	East
German International School Sydney	Schools	150.0	North
Terrey Hills Swim Club	Swim club	102.0	North-west

1.2 PLANNING CONTROLS

Map 1.2 (onsite)

Zoning

Code	Zoning	Details
RU4	Primary Production Small Lots	Warringah Local Environmental Plan 2011

Environmental Planning Instruments

Type	Category	Details
Local Environment Plan	Additional Permitted Uses Map	Warringah Local Environmental Plan 2011

Other Planning Information

Type	Category	Details
Not identified	-	-

1.3 HERITAGE

Map 1.3 (200m Buffer)

State and Local Heritage

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Australian Heritage Database

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Commonwealth Heritage List, National Heritage List and World Heritage Area.

1.4 SOIL AND LAND USE INFORMATION

Map 1.4a/1.4b (onsite)

Soil Landscape

Soil Landscape	REso	Somersby	**Soil Group**	Residual
Description	Landscape—gently undulating to rolling rises on deeply weathered Hawkesbury Sandstone plateau in the Macdonald Ranges. Local relief to 40 m; slopes 15 - <60%. Rock outcrop is absent. Crests are broad and convex; slopes are long and drainage lines are narrow. Extensively cleared low eucalypt open-woodland and scrubland. Soils—moderately deep to deep (100 -300 cm), Yellow Earths (Gn2.24; Gn2.21; KS-Gn2.24; KS-Gn2.21) and Earthy Sands (Uc5.22; KS-Gn5.22) on crests and slopes; with grey earths (Gn2.94) in poorly drained areas; and leached sands (Uc2.23) and Siliceous Sands (Uc1.22) along drainage lines. Qualities and Limitations—localised permanent and seasonal waterlogging, moderate erosion hazard, stoniness, very low soil fertility and highly permeable			

Salinity

Salinity Hazard	Very Low	Western Sydney Hydrogeological Landscapes

Radon

Radon Level	Bq/m^3	5

Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

Acid Sulfate Soil

ASS Risk Map *(Table 1.4.1)*	On the Property?	Within Buffer?
Class	Not identified	Not identified

National Acid Sulfate Soils Atlas

Atlas of Australian ASS *(Table 1.4.2)*	Cq(p4)	ASS in inland lakes, waterways, wetlands and riparian zones	**Probability of Occurrence**	Extremely low probability of occurrence

Table 1.4.1. Classification scheme in the ASS Planning Maps	
Class of Land as shown on ASS Planning Maps	
1	Any works.
2a	Works below the natural ground surface. Works by which the watertable is likely to be lowered.
2b	Works other than ploughing below the natural ground surface. Works by which the watertable is likely to be lowered.
3	Works more than 1 metre below the natural ground surface. Works by which the watertable is likely to be lowered more than 1 metre below the natural ground surface.
4	Works more than 2 metres below the natural ground surface. Works by which the watertable is likely to be lowered more than 2 metres below the natural ground surface.
5	Works within 500 metres of adjacent Class 1, 2a, 2b, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2a, 2b, 3 or 4 land.

For each class of land, the maps identify the type of works likely to present an environmental risk if undertaken in the particular class of land. If these types of works are proposed, further investigation is required to determine if ASS are actually present and whether they are present in such concentrations as to pose a risk to the environment.

Table 1.4.2. Atlas of Australian Acid Sulfate Soils1 (ASRIS) (CSIRO/NatCASS)	
Probability of Occurrence of ASS[1]	
A	**High Probability of occurrence -** (>70% chance of occurrence in mapping unit)
B	**Low Probability of occurrence** - (6-70% chance of occurrence in mapping unit)
C	**Extremely low probability of occurrence** - (1-5% chance of occurrence in mapping unit)
D	**No probability of occurrence** - (<1% chance of occurrence in mapping unit)
x	**Disturbed ASS[1] terrain -** (ASS[1] material present below urban development).
u	**Unclassified** - (Insufficient information to classify map unit)
Zones	
a	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
b, c	Potential acid sulfate soil generally within upper 1 m.
c, d, e	ASS[1] generally within upper 1 m.
f	ASS[1] generally below 1 m from the surface
g	ASS[1], generally below 3 m from the surface.
h	ASS[1] generally within 1 m of the surface.
i, j	ASS[1] generally below 1 m of the surface.
k	ASS[1] material and/or Monosulfidic Black Ooze (MBO).
l, m, n, o, p, q	ASS[1] generally within upper 1 m in wet / riparian areas.
Subscripts to codes	
(a)	Actual acid sulfate soil (AASS) = sulfuric material.
(p)	Potential acid sulfate soil (PASS) = sulfidic material.
(q)	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
Confidence levels	
(1)	All necessary analytical and morphological data are available
(2)	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
(3)	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
(4)	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

[1]*Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics (Pons 1973). Acid sulfate soil (ASS) may include PASS or AASS + PASS. Potential acid sulfate soil (PASS) = sulfidic material. Actual acid sulfate soil (AASS) = sulfuric material.*

1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (onsite)

Geology

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description
Sydney 1:100,000 Geological Sheet	Tuth	Hawkesbury Sandstone	Middle Triassic	Ungrouped Triassic units	Sandstone	Medium- to coarse-grained quartz sandstone with minor shale and laminite lenses.

Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

Topography

Topography	180 mAHD

Section 2 Hydrogeology

2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
Aquifer Type	Porous, extensive aquifers of low to moderate productivity	Porous, extensive aquifers of low to moderate productivity
Drinking Water Catchments	Not identified	Not identified
Protected Riparian Corridor	Not identified	Kierans Creek Smiths Creek
UPSS Environmentally Sensitive Zone	Hawkesbury River	Hawkesbury River Sydney Coast-Georges River
Wetlands	Not identified	Not identified

Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
24	GW107392	Household	21/09/2005	138.2	138.2	70	<Null>	1.6	70.2	North-west
15	GW108523	Household	7/12/2006	114.0	114.0	61	<Null>	3.4	228.5	West
23	GW107021	Household	8/04/2005	156.0	156.0	65	<Null>	0.6	330.2	North-east
17	GW104351	Household	10/05/2002	210.5	210.5	112	<Null>	0.15	383.2	South
38	GW108967	Household	26/06/2008	<Null>	172.0	88	<Null>	1.2	450.9	North
19	GW018343	Water supply	<Null>	1.5	1.5	<Null>	<Null>	<Null>	515.6	North-west
35	GW018776	Water supply	1/12/1960	<Null>	7.3	<Null>	<Null>	0.378	518.3	South

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
18	GW105252	Household	14/10/2003	210.5	210.5	112	<Null>	0.2	569.5	South-west
9	GW004960	Water supply	1/02/1959	30.5	30.4	<Null>	<Null>	0.101	575.0	South-west
20	GW013238	Water supply	1/07/1957	45.7	45.7	6	<Null>	0.112	575.0	South-west
22	GW105402	Household	10/10/2003	162.1	162.1	81	<Null>	0.3	577.1	North
1	GW111931	Drainage	23/11/2012	160.0	160.0	81	<Null>	0.85	665.3	South-west
36	GW013939	Water supply	<Null>	<Null>	3.0	<Null>	<Null>	<Null>	763.2	South-west
2	GW018575	Household	1/12/1959	52.4	52.4	7.6	invalid code	0.151	872.8	North-east
10	GW020300	Water supply	1/10/1962	45.1	45.1	6	<Null>	0.208	971.5	North
4	GW018840	Water supply	1/09/1961	76.2	76.2	<Null>	<Null>	<Null>	1017.1	North-west
3	GW100207	Recreation	3/04/1993	150.0	150.0	16	<Null>	3.73	1033.1	South-west
33	GW108555	Household	23/01/2007	186.0	186.0	81.4	<Null>	0.4	1048.4	North-west
32	GW108565	Household	20/02/2007	198.0	198.0	76.6	<Null>	0.4	1152.0	North-west
6	GW019376	Irrigated agriculture	1/12/1961	51.2	51.2	<Null>	<Null>	3.789	1162.9	North
29	GW108073	Household	12/05/2006	180.5	180.5	86.5	<Null>	1.65	1175.0	North
37	GW023532	Water supply for livestock	<Null>	<Null>	15.2	<Null>	<Null>	<Null>	1180.9	North-east
5	GW017564	Irrigated agriculture	1/06/1956	3.7	3.6	<Null>	Soft	0.378	1222.6	North-west
28	GW106454	Household	9/07/2004	90.5	90.5	<Null>	<Null>	0.08	1294.1	East
27	GW106455	Household	8/07/2004	180	180	<Null>	<Null>	0.15	1314.2	East
7	GW019625	Water supply	1/10/1962	30.5	30.4	15.8	<Null>	0.378	1330.7	North
14	GW100127	Household	22/11/1991	126.5	126.5	37.5	<Null>	0.95	1342.8	North
8	GW019433	Irrigated agriculture	1/09/1961	45.7	45.7	10.3	Good	0.189	1344.7	North
16	GW101555	Recreation	3/12/1998	174	174	49	<Null>	1.3	1358.1	South-west
13	GW016926	Water supply	1/06/1958	22.3	22.2	<Null>	Good	<Null>	1358.5	North
26	GW106657	Household	19/11/2004	168	168	58	<Null>	0.3	1562.9	North-east
31	GW108561	Household	15/02/2007	174	174	72	<Null>	0.5	1700.6	North-west
11	GW014467	Household	1/11/1959	29.6	29.5	<Null>	<Null>	<Null>	1736.4	South
30	GW108787	Household	23/05/2007	198	198	71	<Null>	0.55	1750.0	North-west
21	GW014468	Household	1/03/1960	50.3	49.6	27.4	<Null>	0.005	1779.2	South
12	GW073146	Household	12/02/1993	80	80	<Null>	<Null>	0.6	1836.8	North-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
34	GW108107	Unknown	10/05/2007	<Null>	<Null>	<Null>	<Null>	<Null>	1915.4	North-west
25	GW107194	Household	28/09/2004	192	192	18	<Null>	0.4	1976.3	East

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
GW107392	0m-2m Clay, brown/white 2m-3m Sandstone, pink weathered 3m-5m Sandstone, brown 5m-13m Sandstone, light grey 13m-23.5m Sandstone, brown 23.5m-24.6m Shale, grey 24.6m-38.7m Sandstone, grey brown 38.7m-38.9m Sandstone & quartz, grey, water bearing 38.9m-51.7m Sandstone, grey/brown 51.7m-54.3m Shale, grey 54.3m-83.2m Sandstone, grey 83.2m-83.4m Sandstone/quartz, grey, water bearing 83.4m-83.9m Shale, grey 83.9m-87.1m Sandstone, grey 87.1m-88.5m Shale, grey 88.5m-97.3m Sandstone, light grey 97.3m-97.6m Sandstone & quartz, dark grey, water bearing 97.6m-111.7m Sandstone, grey, some black, shale bands 111.7m-115.7m Sandstone & quartz, light grey 115.7m-138.2m Sandstone, grey/light grey, and dark grey sandstone, some quartz present	70.2	North-west
GW108523	0m-0.75m Clay 0.75m-3.5m Fill, no returns no air 3.5m-20m Sandstone, light brown 20m-22m Ironstone 22m-23m Sandstone, fine quartz 23m-31.5m Sandstone, ironstone bands 31.5m-31.6m Clay 31.6m-34.1m Sandstone, grey 34.1m-34.3m Sandstone, fractured 34.3m-37m Sandstone, grey 37m-37.5m Sandstone-quartz 37.5m-75.5m Sandstone, grey 75.5m-76m Sandstone-quartz 76m-79m Sandstone, grey 79m-80m Sandstone, shale bedding 80m-91m Sandstone, grey 91m-92m Sandstone, fractured, quartz 92m-100.5m Sandstone, grey 100.5m-101.5m Sandstone-quartz 101.5m-103m Sandstone, grey 103m-104.5m Sandstone, fractured, quartz 104.5m-108.3m Sandstone, grey 108.3m-108.4m Sandstone, fractured 108.4m-109.5m Sandstone, grey 109.5m-110m Sandstone, very fractured 110m-114m Sandstone, grey	228.5	West
GW107021	0m-0.3m Topsoil 0.3m-0.9m Sand 0.9m-3.3m Clay gravel 3.3m-6.1m Sandstone, coarse grained, yellow light 6.1m-12.2m Sandy clay, yellow	330.2	North-east

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	12.2m-16.8m Sandstone, coarse grained yellow light / clay 16.8m-31.1m Sandstone, coarse grained grey dark 31.1m-35.3m Sandstone, coarse grained yellow dark 35.3m-51.2m Sandstone, coarse grained grey light 51.2m-52m Sandstone, coarse grained grey dark water bearing 52m-63.7m Sandstone, medium grained grey light 63.7m-71.4m Sandstone, coarse grained grey dark 71.4m-147.8m Sandstone, coarse grained grey light 147.8m-156m Sandstone, medium grained grey light		
GW104351	0m-1m Fill 1m-2m Sand/rocks 2m-5m Grey clay 5m-6.5m Weathered shale 6.5m-21m Sandstone light brown/soft 21m-31m Sandstone grey 31m-33m Siltstone 33m-53m Sandstone grey 53m-54.5m Sandstone fractured 54.5m-56m Siltstone 56m-79m Sandstone grey 79m-80m Siltstone 80m-114m Sandstone grey 114m-115m Sandstone/quartz 115m-133m Sandstone light grey 133m-134.5m Sandstone quartz 134.5m-158m Sandstone grey 158m-158.3m Sandstone dark grey 158.3m-172m Sandstone grey 172m-174m Sandstone dark grey 174m-210.5m Sandstone grey	383.2	South
GW108967	#N/A	450.9	North
GW018343	0m-1.52m Shale	515.6	North-west
GW018776	#N/A	518.3	South
GW105252	0m-6.5m Clay brown white 6.5m-24.5m Sandstone grey brown m/g 24.5m-46.5m Sandstone grey m/g 46.5m-48.5m Sandstone grey/shale bands 48.5m-102.5m Sandstone grey/lt grey 102.5m-117.5m Sandstone grey and quartz 117.5m-136.6m Sandstone grey and quartz (f) 136.6m-148m Quartz 148m-153m Sandstone grey and quartz 153m-158.5m Quartz 158.5m-175m Sandstone grey m/g 175m-186.5m F. sandstone grey lt/brown 186.5m-210.5m Sandstone grey and quartz	569.5	South-west
GW004960	0m-0.91m Soil 0.91m-30.48m Sandstone water supply	575.0	South-west
GW013238	0m-1.21m Soil 1.21m-45.72m Sandstone water supply	575.0	South-west
GW105402	0m-0.4m Fill 0.4m-21.5m Sandstone lt brown,grey soft 21.5m-22.5m Shale dark brown 22.5m-27.1m Sandstone grey/shale bands 27.1m-66.1m Sandstone grey lt grey 66.1m-79.1m Sandstone grey and quratz (w) 79.1m-102.6m Sandstone grey lt grey 102.6m-107.1m Sandstone grey and quratz (w)(f) 107.1m-120.1m Sandstone grey 120.1m-132.6m Sandstone lt grey and quratz (w)	577.1	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	132.6m-155m Sandstone grey and quratz (w) 155m-162.1m Sandstone lt brown		
GW111931	#N/A	665.3	South-west
GW013939	#N/A	763.2	South-west
GW018575	0m-2.43m Clay sandy 2.43m-52.42m Sandstone	872.8	North-east
GW020300	0m-0.91m Sand gravel 0.91m-1.52m Sandstone 1.52m-3.04m Sandstone 3.04m-3.35m Pipe clay white 3.35m-7.31m Sandstone hard 7.31m-7.62m Clay yellow 7.62m-11.27m Sandstone hard 11.27m-11.58m Driller 11.58m-12.19m Pipe clay white 12.19m-21.64m Sandstone hard 21.64m-21.94m Pipe clay white 21.94m-23.16m Sandstone 23.16m-26.51m Clay grey 26.51m-30.48m Sandstone hard water supply 30.48m-30.78m Clay grey 30.78m-36.88m Sandstone 36.88m-37.49m Sandstone 37.49m-38.1m Clay 38.1m-42.67m Sandstone clay 42.67m-45.11m Sandstone hard	971.5	North
GW018840	0m-0.91m Soil 0.91m-45.72m Sandstone 45.72m-50.59m Sandstone hard 50.59m-50.9m Shale 50.9m-54.86m Sandstone white 54.86m-59.43m Sandstone grey 59.43m-60.96m Sandstone hard 60.96m-61.26m Sandstone soft 61.26m-61.56m Clay white 61.56m-64.31m Sandstone 64.31m-64.61m Clay white 64.61m-76.2m Sandstone hard	1017.1	North-west
GW100207	0m-16m Fine white sandstone 16m-26m Coarse white sandstone 26m-55m Medium grain white sandstone 55m-58m Fine white sandstone 58m-65m Coarse grey sandstone 65m-68m Coarse brown sandstone 68m-112m Medium grain grey sandstone 112m-130m Fine grain grey sandstone 130m-132m Coarse grey sandstone 132m-150m Fine grey sandstone	1033.1	South-west
GW108555	0m-1m Sandy clay 1m-3m Sandstone, grey 3m-3.5m Clay 3.5m-27m Sandstone, grey 27m-33m Shale 33m-75m Sandstone, grey 75m-76m Sandstone quartz 76m-78m Sandstone, grey 78m-80m Sandstone quartz, water bearing 80m-94m Sandstone, grey 94m-97m Siltstone 97m-114.5m Sandstone, grey 114.5m-119m Sandstone quartz, water bearing	1048.4	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	119m-128m Sandstone, grey 128m-129m Siltstone 129m-136m Sandstone, grey 136m-142m Sandstone quartz 142m-146m Sandstone, grey 146m-147m Siltstone 147m-160m Sandstone quartz, water bearing 160m-176m Sandstone, grey 176m-178m Sandstone quartz, water bearing 178m-180m Sandstone, grey 180m-184m Sandstone quartz 184m-186m Sandstone, grey		
GW108565	0m-2.8m Sandy clay 2.8m-17m Sandstone, yellow 17m-18.5m Sandy clay 18.5m-22m Sandstone, grey 22m-38m Shale 38m-55m Sandstone, grey 55m-57m Sandstone-shale-quartz 57m-73m Sandstone, grey 73m-77m Sandstone-quartz, water bearing 77m-86m Sandstone, grey 86m-87.5m Shale, clay band 87.5m-91m Sandstone, grey 91m-92m Siltstone 92m-113m Sandstone, grey 113m-117m Sandstone-quartz, water bearing 117m-132m Sandstone, grey 132m-135m Siltstone-quartz 135m-137.5m Sandstone, grey 137.5m-141m Sandstone-quartz, water bearing 141m-153m Sandstone, grey 153m-163m Sandstone-quartz, water bearing 163m-166m Sandstone, grey 166m-167m Siltstone 167m-188m Sandstone, grey 188m-191m Sandstone-quartz, water bearing 191m-193m Sandstone, grey 193m-195m Sandstone-quartz 195m-198m Sandstone, grey	1152.0	North-west
GW019376	0m-10.05m Clay water supply 10.05m-21.33m Sandstone yellow 21.33m-33.52m Clay seams 21.33m-33.52m Sandstone pink 33.52m-38.1m Sandstone yellow 38.1m-48.46m Sandstone black water supply 48.46m-51.2m Clay seams water supply 48.46m-51.2m Sandstone white	1162.9	North
GW108073	0m-0.5m Clay, fill 0.5m-15m Sandstone, orange pink 15m-26m Clay, grey sandy 26m-28m Shale 28m-30m Sandstone, grey sandy clay 30m-59m Sandstone, grey 59m-62m Shale, siltstone 62m-98m Sandstone, grey quartz siltstone 98m-99.5m Sandstone, grey quartz 99.5m-117m Sandstone, grey siltstone 117m-118m Sandstone, grey quartz siltstone 118m-119m Sandstone, grey siltstone 119m-124m Sandstone, grey quartz 124m-125m Sandstone, grey quartz	1175.0	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	125m-148m Sandstone, grey 148m-149m Sandstone, grey quartz 149m-155m Sandstone, grey quartz 155m-162m Sandstone, grey 162m-164m Sandstone, grey quartz 164m-165m Sandstone, grey 165m-166.5m Sandstone, grey quartz siltstone 166.5m-170m Sandstone, grey 170m-171m Siltstone 171m-173m Sandstone, grey 173m-174.5m Siltstone 174.5m-176m Sandstone, grey 176m-180.5m Sandstone, grey quartz		
GW023532	#N/A	1180.9	North-east
GW017564	0m-2.43m Clay sand 2.43m-3.65m Rock red water supply	1222.6	North-west
GW106454	0m-2.5m Clay, sandy 2.5m-12m Sandstone, light brown 12m-14m Shale, soft 14m-54m Sandstone, light brown 54m-56m Sandstone, find quartz 56m-57m Sandstone, grey 57m-57.5m Sandstone, fractured quartz 57.5m-76.5m Sandstone, grey 76.5m-77.5m Sandstone, quartz 77.5m-90.5m Sandstone, grey	1294.1	East
GW106455	0m-3m Sand 3m-13.5m Sandstone, light brown soft 13.5m-16m Shale, soft 16m-47.5m Sandstone, grey 47.5m-48m Sandstone, quartz 48m-53m Sandstone, grey 53m-57m Sandstone, fractured quartz 57m-75.2m Sandstone, grey 75.2m-75.3m Sandstone, fracture 75.3m-76m Sandstone, grey 76m-78m Sandstone, fracture quartz 78m-84.4m Sandstone, grey 84.4m-84.7m Shale 84.7m-138m Sandstone, grey 138m-141m Sandstone, dark grey 141m-144m Siltstone, black 144m-146m Siltstone, light grey 146m-154m Sandstone, dark grey 154m-158m Siltstone, very hard 158m-166m Sandstone, dark grey 166m-166.1m Sandstone, fracture 166.1m-180m Sandstone, grey	1314.2	East
GW019625	0m-0.6m Sand 0.6m-1.82m Sandstone 1.82m-1.98m Clay white 1.98m-3.04m Sandstone 3.04m-5.48m Sandstone red 5.48m-8.22m Sandstone 8.22m-13.41m Sandstone hard 13.41m-15.24m Sandstone 15.24m-16.76m Sandstone yellow 16.76m-18.28m Sandstone hard clay 18.28m-20.11m Clay 20.11m-21.64m Sandstone hard 21.64m-22.86m Driller	1330.7	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	22.86m-26.21m Sandstone hard 26.21m-26.36m Sand gravel water supply 26.36m-26.67m Gravel 26.67m-27.61m Clay gravel 27.61m-30.48m Sandstone hard		
GW100127	0m-1m Soil clay 1m-2.5m Sandstone 2.5m-16m Sandstone white 16m-22.5m Red/brown sandstone 22.5m-24m Shale (clayey) very soft 24m-25.5m Sandstone white 25.5m-29m (clayey) shale very soft 29m-33m Sand stone white 33m-37.5m Shale m/ hard some fracture wb 37.5m-77.5m Sandstone fracture coarse grain sand etc wb 77.5m-83m Shale m/ hard 83m-100.5m Sandstone firm grain some fractures coarse grain 100.5m-101.5m Shale band m/hard 101.5m-103.5m Grey sandstone 103.5m-111.5m Coarse grain sandstone 111.5m-112m Shale hard 112m-126.5m Sandstone some fracture mostly fine grain well cemented	1342.8	North
GW019433	0m-1.21m Loam sandy 1.21m-7.31m Sandstone yellow 7.31m-11.27m Clay bands 7.31m-11.27m Sandstone white 11.27m-26.51m Sandstone water supply 26.51m-27.12m Shale bands 27.12m-45.72m Sandstone water supply	1344.7	North
GW101555	0m-3.5m Fill 3.5m-7m Brown clay 7m-8.5m Grey clay 8.5m-26m White sandstone m.g. 26m-27m Sandstone and quartz 27m-31.5m White sandstone m.g. 31.5m-32.5m Grey clay 32.5m-45m White sandstone m.g. 45m-45.5m Ironstone 45.5m-47m Grey clay 47m-50m Grey sandstone m.g. 50m-54m Sandstone and quartz, fractured 54m-78m Grey sandstone m.g. 78m-90m Grey sandstone f.g. 90m-96m Sandstone and quartz, fractured 96m-138m White sandstone m.g. 138m-141.5m Sandstone and quartz 141.5m-150m White sandstone m.g. 150m-158m Sandstone and quartz 158m-163m White sandstone m.g. 163m-172m Sandstone and quartz 172m-174m White sandstone m.g.	1358.1	South-west
GW016926	0m-0.91m Soil 0.91m-22.25m Sandstone water supply	1358.5	North
GW106657	0m-22m Sandstone, light brown 22m-25m Sandstone, light grey 25m-37m Sandstone, ironstone bands 37m-37.3m Clay 37.3m-49.3m Sandstone, grey 49.3m-49.4m Sandstone, fractured 49.4m-53.8m Sandstone, grey 53.8m-54m Sandstone, fractured	1562.9	North-east

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	54m-63m Sandstone, grey 63m-65m Sandstone, ironstone bands 65m-100m Sandstone, grey 100m-101m Sandstone, fractured quartz 101m-130m Sandstone, grey 130m-132m Sandstone, quartz 132m-141m Sandstone, grey 141m-143m Sandstone, quartz 143m-163m Sandstone, grey 163m-164m Sandstone, quartz 164m-168m Sandstone, grey		
GW108561	0m-0.5m Ttopsoil 0.5m-46m Sandstone, grey 46m-50m Sandstone, grey quartz, water bearing 50m-54m Sandstone, grey 54m-58m Shale 58m-82.5m Sandstone, grey 82.5m-93m Sandstone-qquartz 93m-94m Shale, clay band 94m-96m Sandstone, grey 96m-101m Sandstone-quartz, water bearing 101m-121m Sandstone, grey 121m-128m Sandstone-quartz, water bearing 128m-130m Sandstone, grey 130m-136m Sandstone-quartz 136m-157m Sandstone, grey 157m-160m Sandstone-quartz 160m-174m Sandstone, grey	1700.6	North-west
GW014467	0m-1.52m Soil 1.52m-29.56m Sandstone	1736.4	South
GW108787	0m-0.2m Topsoil 0.2m-17m Sandstone, yellow 17m-25m Sandstone, grey 25m-27m Shale 27m-49m Sandstone, grey 49m-53m Sandstone, quartz 53m-69m Sandstone, grey 69m-71m Sandstone, fractured 71m-72m Sandstone, grey 72m-74m Sandstone, quartz 74m-81.5m Sandstone, grey 81.5m-87.5m Shale 87.5m-114m Sandstone, grey 114m-118m Sandstone, quartz 118m-138m Sandstone, grey 138m-144m Sandstone, quartz siltstone 144m-151m Sandstone, grey 151m-155m Sandstone, quartz 155m-160m Sandstone, grey 160m-162m Siltstone 162m-168m Sandstone, grey 168m-171m Sandstone, quartz 171m-175m Sandstone, siltstone 175m-188m Sandstone, grey 188m-192m Sandstone, quartz 192m-198m Sandstone, grey	1750.0	North-west
GW014468	0m-0.61m Soil 0.61m-50.29m Sandstone water supply	1779.2	South
GW073146	0m-10m Red & white s/s f/g 10m-28m Grey s/s f/g 28m-31.5m Shale bed	1836.8	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	31.5m-39.5m Sandstone c/g & open grey & white 39.5m-39.7m Fracture water bearing 39.7m-45m X bed shale & c.g. grey sandstone 45m-69m Sandstone c.g. & open clay in matrix 69m-72m Sandstone x bed shale clay in matrix 72m-80m Sandstone open grain & water bearing		
GW108107	#N/A	1915.4	North-west
GW107194	0m-3m Tospsoil 3m-4m Clay, sandy 4m-20m Sandstone 20m-22m Shales, grey 22m-52m Sandstone 52m-56m Clays 56m-170m Sandstone 170m-192m Shales, grey	1976.3	East

2.2 HYDROGEOLOGY AND OTHER BOREHOLES

Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Vulnerability	Not identified	Not identified
Groundwater Exclusion Zones[1,2]	Not identified	Not identified
Hydrogeologic Unit	Late Permian/Triassic sediments (porous media - consolidated)	Late Permian/Triassic sediments (porous media - consolidated)

[1] - *Botany Groundwater Management Zones (BGMZ): Zone 1 – the use of groundwater remains banned; Zones 2 to 4 – domestic groundwater use is banned, especially for drinking water, watering gardens, washing windows and cars, bathing, or to fill swimming pools.*

[2] - *Williamtown Groundwater Management Zones (WGMZ): Primary Management Zone – this area has significantly higher levels of PFAS detected and therefore, the strongest advice applies. Secondary Management Zone – this area has some detected levels of PFAS; Broader Management Zone – the topography and hydrology of the area means PFAS detections could occur now and into the future.*

Groundwater Dependent Ecosystems (GDE)

	On the Property?	Within Buffer?
Aquatic	Not identified	Not identified
Terrestrial	Not identified	Not identified

Aquatic - Ecosystems that rely on the Surface expression of groundwater.
Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.

Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/ Licence	Date Drilled	Depth (m)	Distance (m)	Direction
Not identified	-	-	-	-	-	-	-

Section 3 Environmental Registers, Licences and Incidents

3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

Sites Notified as Contaminated to the EPA

Site Name	Address	Activity that caused Contamination	EPA Site Management Class *(Table 3.1.1)*	Distance (m)	Direction
Not identified	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Contaminated Land Record of Notices

Site Name	Area n°	Address	Notices	Distance (m)	Direction
Not identified	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Table 3.1.1. EPA Site Management Class Explanation

Table 3.1.1 EPA Site Management Class	
EPA Site Management Class	
Under Assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.

Table 3.1.1 EPA Site Management Class	
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Contamination currently regulated under the CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under the POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

The EPA maintains a record of sites that have been notified to the EPA by owners or occupiers as contaminated land. The sites notified to the EPA are recorded on the register at various stages of the assessment and/or remediation process.

3.2 SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.2 (2000m Buffer)

Defence, Military Sites and UXO Areas

Site name	Type*	Details	Distance (m)	Direction
Not identified	-	-	-	-

**RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)*

Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

PFAS Sites

Site name	Description	Source	Distance (m) *	Direction
Not identified	-	-	-	-

National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Dematic Pty Ltd	24 Narabang Way	Structural Steel Fabricating	2018/2019	1848.0	South

3.3 LICENCES, APPROVALS & NOTICES

Map 3.3 (500m Buffer)

Licences

Licence N°	Licence holder	Location Name	Premise Address	Fee Based Activity	Distance (m)*	Direction
13090	Kimbriki Environmental Enterprises Pty Limited	Kimbriki Road	Kimbriki Road, Terrey Hills	"Composting Recovery of general waste Waste storage - other types of waste"	415.0	South-east

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Other Licences still Regulated by EPA

Licence N°	Licence holder	Location Name	Premise Address	Fee Based Activity	Status	Distance (m)*	Direction
3943	Australian Native Landscapes Pty Ltd	Australian Native Landscapes	317 Mona Vale Road, Terrey Hills, Nsw 2084	Helicopter-related activity	Surrendered	396.0	South
4600	Warringah Council	Surrendered - Kimbriki Recycling & Waste Disposal Centre	Kimbriki Road, Terrey Hills, Nsw 2084	Land-based extractive activity Non-thermal treatment of general waste Waste storage - other types of waste Waste disposal by application to land	Surrendered	415.0	South-east
12615	Warringah Council	Kimbriki Recycling & Waste Disposal Centre	Kimbriki Road, Terrey Hills, Nsw 2084	Composting	Surrendered	415.0	South-east

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Clean Up and Penalty Notices

Location ID	Notice Type	Notice N°	Licence holder	Location Name	Premise Address	Distance (m)*	Direction
Not identified	-	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Section 4 Potentially Contaminated Areas

4.1 FORMER POTENTIALLY CONTAMINATED LAND

Map 4.1 (500m Buffer)

Contaminated Legacy Areas / Historic Incident Sites

Site Name	Description	Distance (m)	Direction
Not identified	-	-	-

Includes known contaminated areas such as James Hardies Asbestos waste legacy areas, Pasminco Smelter and Uranium processing site.

Derelict Mines and Quarries

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

Historical Landfills

Site name	Description	Distance (m)	Direction
Kimbriki Resource Recovery Centre	Kimbriki was originally established as a landfill in 1974. In 1989-90, resource recovery operations for vegetation and scrap metal commenced on site and the Kimbriki Recycling and Waste Disposal Centre commenced. A gas flare was installed in late 2013 as part of the landfill gas collection system. The collected gas is then burned at a high temperature of approximately 800 degrees C. Kimbriki extracts approximately 490 cu. M of landfill gas per hour.	415.0	South-east

4.2 CURRENT POTENTIALLY CONTAMINATING ACTIVITIES (PCA) Map 4.2 (500m Buffer)

Industries, businesses and activities that may cause contamination

Site name	Category	Location	Status*	Distance (m)	Direction
Warringah Fire Control Centre	Fire Rescue	1A Thompson Drive Gate 4, Off, Kamber Rd, Terrey Hills NSW 2084	Current	90.0	East
Warringah Headquarters RFB	Fire Rescue	1A Kamber Rd, Terrey Hills NSW 2084	Current	132.0	South-east
Terrey Hills (TERR)	Telephone Exchange	1 Kamber Road, Terrey Hills	Current	144.0	South-east

**Status:*
Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.
Current: business is operating on the day this report was issued.
Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

Included in this search:

Type	Type	Type
Cattle Dip Sites	Liquid Fuel Depots	Substation/Switching Stations
Dry Cleaners	Operating Mines	Telephone Exchanges
Fire Rescue	Power Stations	Wastewater Treatment Plants
Gas Terminals	Petrol Stations	Waste Management Facilities

Includes industries or business activities associated with potentially contaminating activities. Records identified within section 4.2 are considered to have a higher likelihood of contamination risk associated with the type of business activity. The contamination risk associated with these records is based solely on the type of activity undertaken by the business, and in conjunction with business activities deemed to be of moderate to high risk of potential contamination identified in State Government regulatory body (EPA) published regulations or guidelines.
The records identified have not been risk ranked based on any current or previous site inspection. Please note that records not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

4.3 OTHER POTENTIALLY CONTAMINATING ACTIVITIES Map 4.3 (200m Buffer)

Industries, businesses and activities that may cause contamination considered of lesser risk

Site name	Category	Location	Status*	Distance (m)	Direction
All Truck Mechanic	Truck repair shop	38 Myoora Rd, Terrey Hills NSW 2084	Operational	40.0	South
DHaRCO	Sportwear manufacturer	2/38 Myoora Rd, Terrey Hills NSW 2084	Operational	30.0	South

**Status:*

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.
Current: business is operating on the day this report was issued.
Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

Includes industries or business activities records associated with potentially contaminating activities that are not listed in section 4.2 of this report. Records identified within this section are considered to have a lesser likelihood of contamination risk associated with the type of business activity. The contamination risk associated with the records listed in this section are based solely on the type of activity undertaken and have not been risk ranked based on any current or previous site inspection, as such, some of the sites listed in section 4.3 can be potentially of high risk. Industries or business activities deemed of a negligible risk of contamination are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

4.4 HISTORICAL POTENTIALLY CONTAMINATING ACTIVITIES (not mapped)

1930 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1940 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1950 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Markets - Public	Zappia J	Myoora Road, Terrey Hills,NSW	Street		South-west

1965 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1970 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1980 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1990 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Audio-Visual Equipment Sales Hire Or Service	Farrell Sound & Vision	9/53 Myoora Road, Terrey Hills,NSW	Address	84.5	South-west
Hospitals - Public	Farrell Sound & Vision	9/53 Myoora Road, Terrey Hills,NSW	Address	84.5	South-west

2005 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Air Conditioning - Industrial & Commercial	Gas & Industry Supply	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Bus & Truck Repairs	Kingpins Service Centre	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Carriers - Light Transportation	Warringah Transport Service	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Concrete - Repair & Treatment Services	Warringah Crane & Transport	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Environmental & Pollution Services & Consultants	Drillers World Australia	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Ice Supplies	Pro em Gases Gas & Industry Supply	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Party Equipment Hire	Pro Em Int'nl Paraski & Kite Surfing	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Tyre Retailers	Jax Tyres Brakes & Suspension	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Welding & Soldering Equipment & Supplies	Baroid Australia	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Welding & Soldering Equipment & Supplies	Drillers World Australia, Terrey Hills	38 Myoora Rd, Terrey Hills,NSW,2084	Address	41.2	South-west
Swimming Pool Safety Inspections	Terrey Hills Swim School	31 Myoora Rd, Terrey Hills,NSW,2084	Address	93.2	North-west

2010 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Crane & Travel Tower Hire Or Servicing	Brookvale Crane Service	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Crane & Travel Tower Hire Or Servicing	Dee Why Crane Service	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Crane & Travel Tower Hire Or Servicing	French's Forest Crane Service	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Crane & Travel Tower Hire Or Servicing	Manly Crane & Salvage	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Crane & Travel Tower Hire Or Servicing	North Shore Crane Service	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Crane & Travel Tower Hire Or Servicing	Northern Beaches Crane Hire	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Crane & Travel Tower Hire Or Servicing	Warringah Crane & Transport	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Wheel - Balancing & Alignment	Kingpins Service Centre	38 Myoora Rd Terrey Hills 2084 NSW	Address	41.2	South-west
Building Contractors - General	Bailey R & T Building Services Pty Ltd	2/53 Myoora Rd Terrey Hills 2084 NSW	Address	84.5	South-west
Electric Elements - New & Replacements	Robinhood Industries Pty Ltd	4/53 Myoora Rd Terrey Hills 2084 NSW	Address	84.5	South-west
Flag & Banner M/Factrs	The Stockade	9/53 Myoora Rd Terrey Hills 2084 NSW	Address	84.5	South-west
Building Contractors - General	Bebaci Project Management	1 Terrey Hills St Terrey Hills 2084 NSW	Address	98.1	North-west
Building Contractors - Renovations Alterations & Extensions	Bradstreet Building Services	27 Myoora Rd Terrey Hills 2084 NSW	Address	155.0	West

2015 Historical Business Data

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Carriers - Light Transportation	Northern Beaches Crane Hire	38 Myoora Rd, Terrey Hills,NSW,2084	Address	28.4	South-west
Crane & Travel Tower Hire Or Servicing	Brookvale Crane Service	38 Myoora Rd, Terrey Hills,NSW,2084	Address	28.4	South-west
Crane & Travel Tower Hire Or Servicing	Dee Why Crane Service	38 Myoora Rd, Terrey Hills,NSW,2084	Address	28.4	South-west
Crane & Travel Tower Hire Or Servicing	French's Forest Crane Service	38 Myoora Rd, Terrey Hills,NSW,2084	Address	28.4	South-west
Crane & Travel Tower Hire Or Servicing	Manly Crane & Salvage	38 Myoora Rd, Terrey Hills,NSW,2084	Address	28.4	South-west

Activity	Name	Address	Positional accuracy	Distance (m)	Direction
Crane & Travel Tower Hire Or Servicing	North Shore Crane Service	38 Myoora Rd, Terrey Hills,NSW,2084	Address	28.4	South-west
Crane & Travel Tower Hire Or Servicing	Warringah Crane & Transport	38 Myoora Rd, Terrey Hills,NSW,2084	Address	28.4	South-west
Nurseries - Retail	Decorator Terracotta Pty Ltd	301 Mona Vale Rd, Terrey Hills,NSW,2084	Address	28.4	South-west
Teaching & Tuition - Swimming	Terrey Hills Swim School	31 Myoora Rd, Terrey Hills,NSW,2084	Address	119.5	North-west
Building Contractors - Renovations Alterations & Extensions	Bradstreet Building Services	27 Myoora Rd, Terrey Hills,NSW,2084	Address	138.1	West

Land Insight uses a number of address geocoding techniques and characterised them according to the following criteria: completeness (match rates) and positional accuracy. When a historical street address does not contain complete details or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. The positional accuracy of the records is listed below:

Historical data positional accuracy and georeferencing results explanation		
Positional accuracy	**Georeferenced**	**Description**
Address	Located to the address level	*When street address and names fully match.*
Street	Located to the street centroid	*When street names match but no exact address was found. Location is approximate.*
Place	Located to the structure, building or complex	*When building, residential complex or structure name match but no exact address was found. Location is approximate.*
Suburb	Located to the suburb area	*When suburb name match but no exact address was found. Location is approximate.*

The data used in this section was extracted from range of historical commercial trade directories and historical business listing information. The business addresses were geocoded using historical information and cannot be relied upon as some of the addresses no longer exist. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at info@landinsight.co.

Historical Industries or business activities deemed to be of negligible or lesser risk are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

Section 5 Natural Hazards

5.1 Natural Hazards

Map 5.1 (500m Buffer)

Erosion Risk

Category	On the Property?	Within Buffer?
Soil Erosion Hazard	Minor to moderate	Minor to moderate

Fire Hazard

Category	On the Property?	Within Buffer?
Bush Fire Prone Land (BLP)	Vegetation Buffer	Vegetation Buffer Vegetation Cat 1 Vegetation Cat 2
Fire History	Wildfire (1951-52)	Wildfire (1951-52) Wildfire (1979-80) Prescribed burn (1985-86) Wildfire (1993-94) Prescribed burn (2003-04) Prescribed burn (2004-05) Prescribed burn (2008-09) Prescribed burn (2011-12) Prescribed burn (2012-13)

Flood Hazard

Category	On the Property?	Within Buffer?
Not identified	-	-

Land Insight

Tower Three, Level 24
300 Barangaroo Avenue
Sydney NSW 2000 Australia
02 8067 8870
info@liresources.com.au
www.liresrouces.com.au

Appendix A

REPORT MAPS

PROPERTY SETTING

MAP 1.1

Subject Area and Sensitive Receptors

Subject area

Sensitive receptors
- Community Centres & Services
- Places of Worship & Religious Organisations
- School Education
- Sports and Recreation Activities

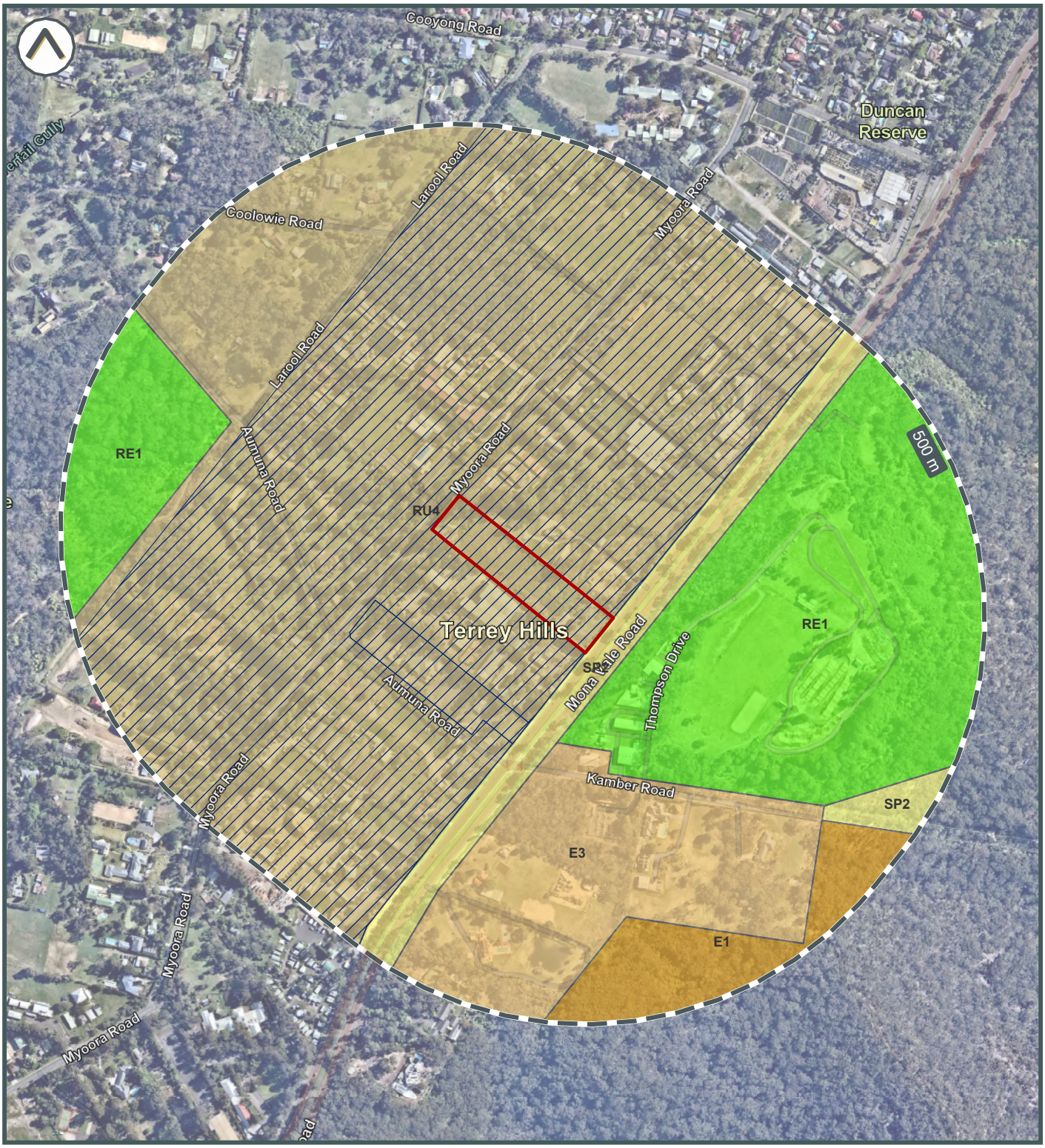
Sewer main
Water main

0 50 100 150 200 250m

Land Insight

MAP 1.2

Planning Controls



Subject area
Additional Permitted Land Uses

Land Zoning
E1 | National Parks and Nature Reserves
E3 | Environmental Management
RE1 | Public Recreation
RU4 | Rural Small Holdings
SP2 | Special Purposes Zone – Infrastructure

0 100 200 300 400 500m

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PROPERTY SETTING

Heritage

MAP 1.3

Subject area
Heritage conservation Area (LEP)
State Heritage Register
Commonwealth Heritage List (CHL)
National Heritage List (NHL)
World Heritage Area (WHA)

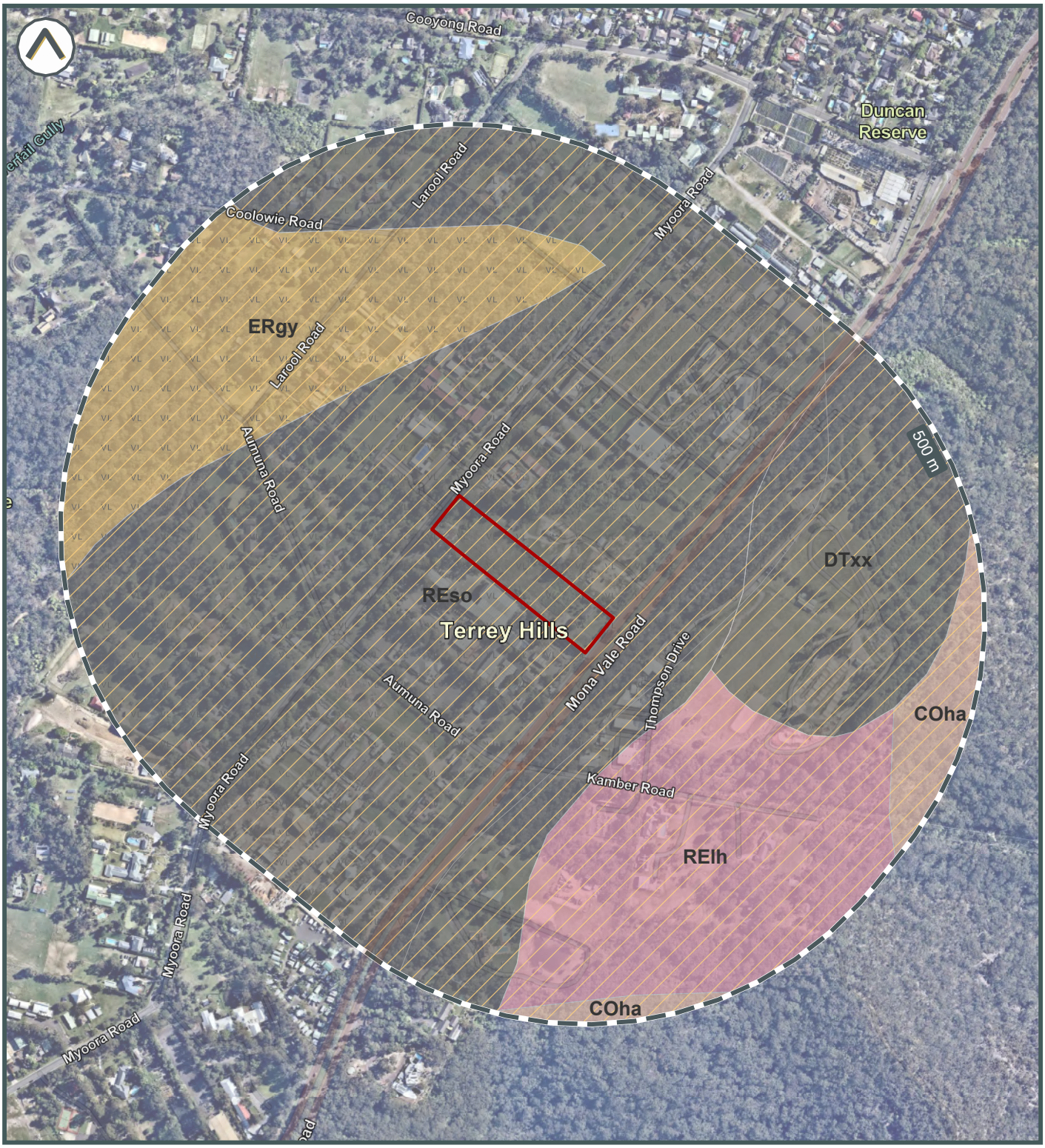
0 20 40 60 80 100m

Land Insight

PROPERTY SETTING

MAP 1.4a

Soil Landscape and Salinity



Subject area

Salinity Hazard
Very Low

Radon Level (Bq/m3)
5-19

Soils Landscape
- COha | COLLUVIAL
- DTxx | DISTURBED TERRAIN
- ERgy | EROSIONAL
- REIh | RESIDUAL
- REso | RESIDUAL

0 100 200 300 400 500m

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PROPERTY SETTING

Acid Sulfate Soils

MAP 1.4b

Subject area

ASRIS Atlas of Australian Sulfate Soils

Cq(p4) | ASS in inland lakes, waterways, wetlands and riparian zones

0 100 200 300 400 500m

Land Insight

MAP 1.5

Geology and Topography

Subject area
Topographic contour (m)

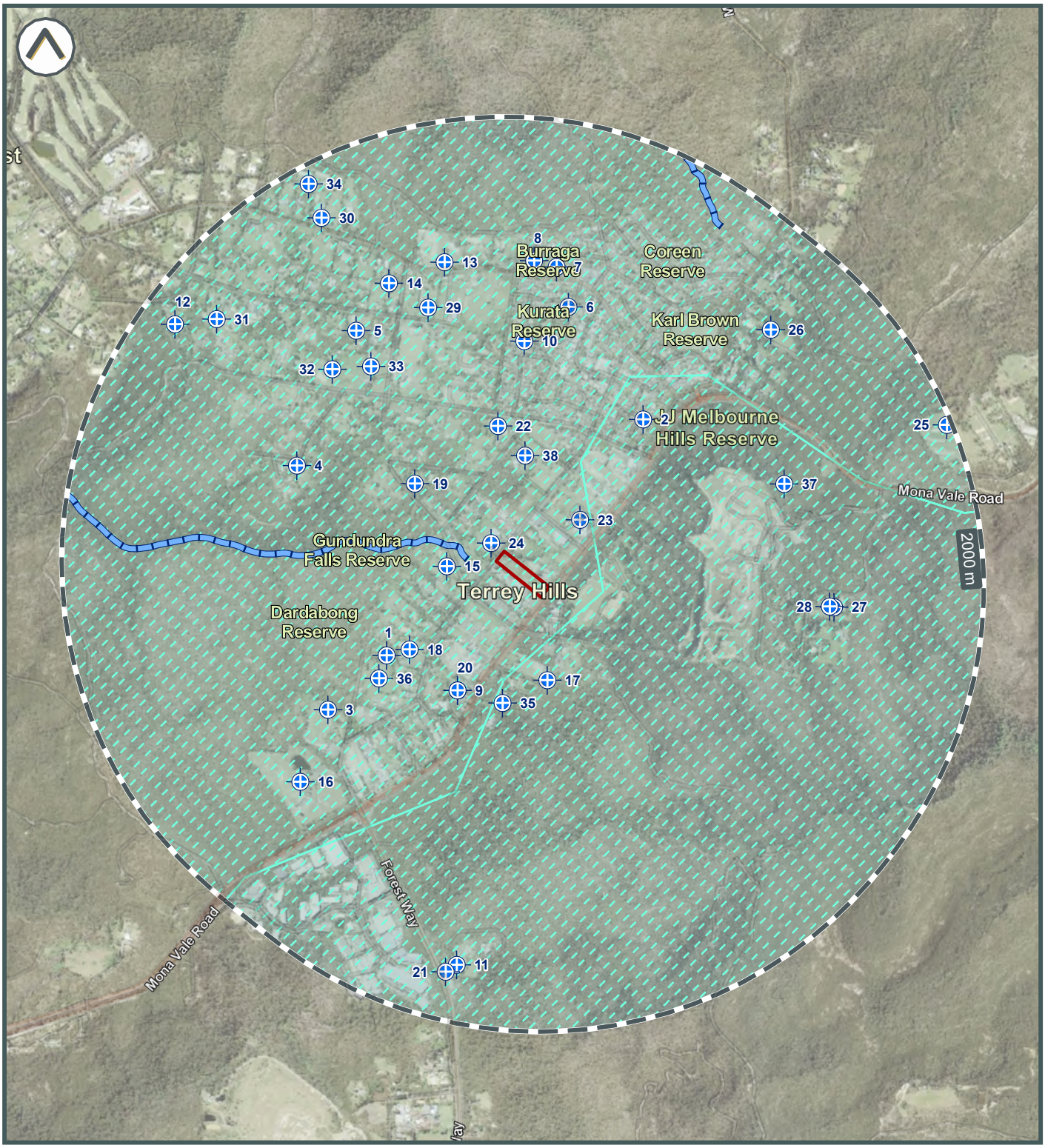
PERMO-TRIASSIC BASINS
Tuth

0 100 200 300 400 500m

Land Insight

MAP 2.1

Hydrogeology and Groundwater Boreholes



Subject area

Groundwater bores

Protected Riparian Corridor

UPSS Environmentally Sensitive Zone

Aquifer type

Porous, extensive aquifers of low to moderate productivity

0 400 800 1,200 1,600 2,000m

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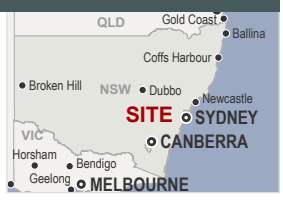
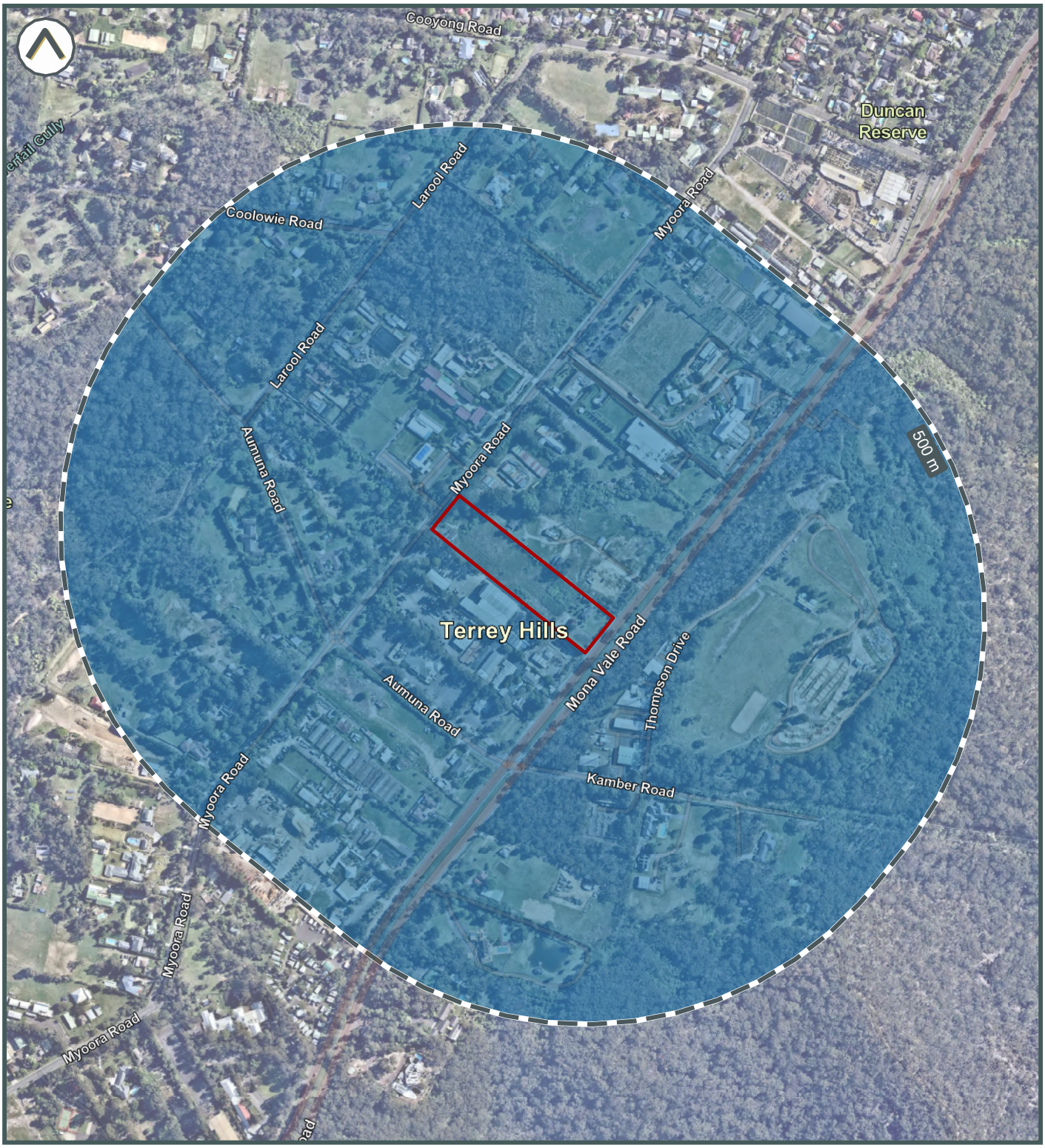


MAP 2.2

Hydrogeology and Other Boreholes



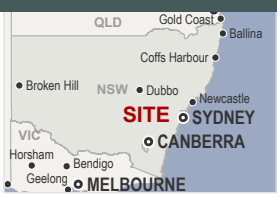
Subject area

Other borehole/monitoring well location

Hydrogeologic Unit

Late Permian/Triassic sediments (porous media – consolidated)

0 100 200 300 400 500m



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ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.1

Contaminated Land Public Register

Subject area

Contaminated Land Register (EPA)
Contaminated Land Register (EPA)
Contaminated Land Record of Notices

0 200 400 600 800 1,000m

Land Insight

ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.2

Sites Regulated by other Jurisdictional Body

Subject area

0 400 800 1,200 1,600 2,000m

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MAP 3.3

Licensing Under the POEO Act

Subject area

POEO Licences
- Issued
- Surrendered / Suspended / Revoked
- Delicensed / No longer in force

Clean Up and Penalty Notices

0 100 200 300 400 500m

Land Insight

POTENTIALLY CONTAMINATED AREAS

MAP 4.1

Former Potentially Contaminated Land

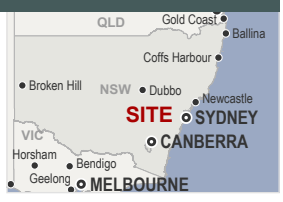
Subject area

Contaminated Legacy Areas
James Hardie asbestos
Historical (Legacy) Landfills

Derelict Mines and Quarries

0 100 200 300 400 500m

Land Insight



POTENTIALLY CONTAMINATED AREAS

MAP 4.2

Current Potentially Contaminating Activities (PCAs)

- Subject area
- Cattle Dip Sites
- Operational Dry Cleaners
- Former Dry Cleaners
- Fire Rescue
- Gas Terminals
- Liquid Fuel Depots
- Operating Mines
- Power Stations
- Operational Petrol Stations
- Former Petrol Stations
- Substation/switching station
- Telephone Exchanges
- Wastewater Treatment Plants
- Waste Management Facilities

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.

0 100 200 300 400 500m

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POTENTIALLY CONTAMINATED AREAS

Other Potentially Contaminating Activities

MAP 4.3

Commercial & Trade Directory

Other potentially contaminating activities

Former potentially contaminating activities

*This is not an exhaustive list of all tanks

0 50 100 150 200 250m

Land Insight

NATURAL HAZARDS

MAP 5.1

Fire and Flood Hazards

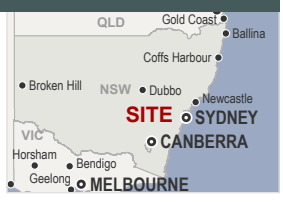
Subject area | Fire History

Bush Fire Prone Land
- Vegetation Buffer
- Vegetation Category 1
- Vegetation Category 2

Erosion Hazard
- Minor to moderate

0 100 200 300 400 500m

Land Insight



Land Insight RESOURCES

Appendix B

HISTORIC IMAGERY

Historic Aerial Photograph - 1947

LIR-02284 Aerial Photograph 1947 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1961

LIR-02284 Aerial Photograph 1961 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1971

LIR-02284 Aerial Photograph 1961 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1975

LIR-02284 Aerial Photograph 1961 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1978

LIR-02284 Aerial Photograph 1978 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1983

Subject area

0 200m

Land Insight

LIR-02284 Aerial Photograph 1983 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Historic Aerial Photograph - 1986

LIR-02284 Aerial Photograph 1983 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1991

LIR-02284 Aerial Photograph 1983 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1994

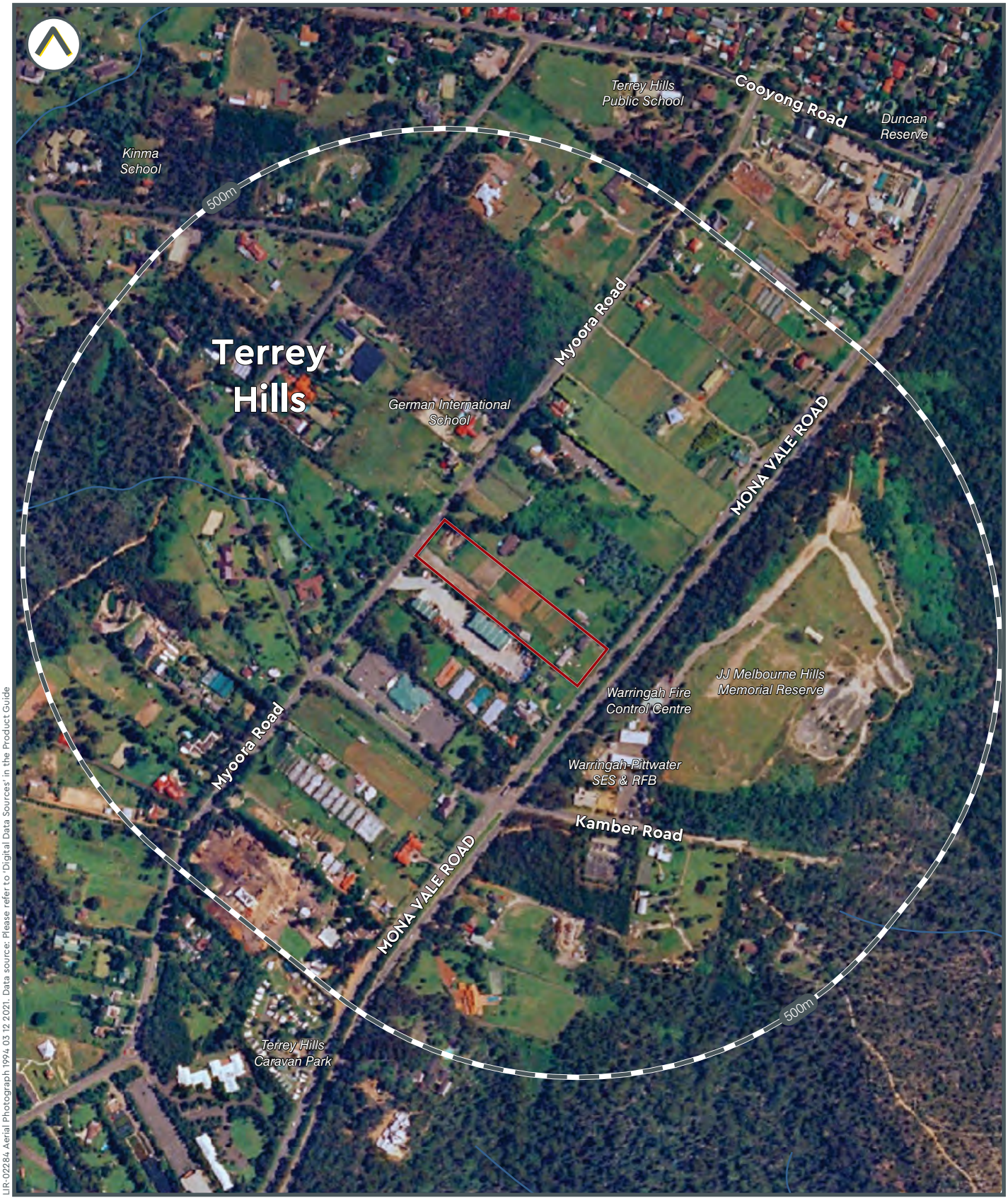
LIR-02284 Aerial Photograph 1994 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1996



LIR-02284 Aerial Photograph 1994 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 2004

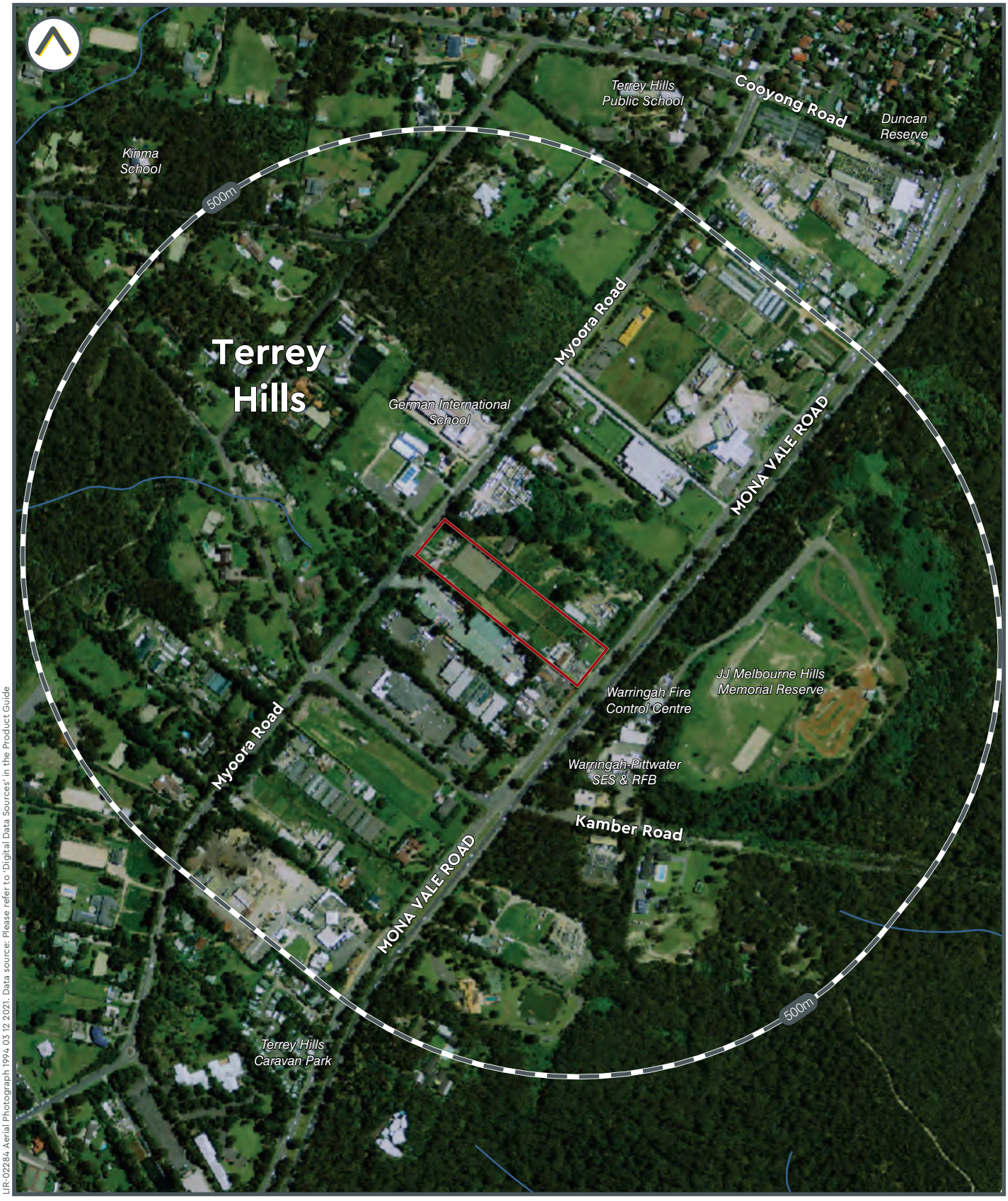
LIR-02284 Aerial Photograph 1994 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 2007



LIR-02284 Aerial Photograph 1994 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 2009

LIR-02284 Aerial Photograph 1994 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 2012

LIR-02284 Aerial Photograph 2012 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 2015

LIR-02284 Aerial Photograph 2012 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 2018

Subject area

0 200m

Land Insight

LIR-02284 Aerial Photograph 2018 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Historic Aerial Photograph - 2021

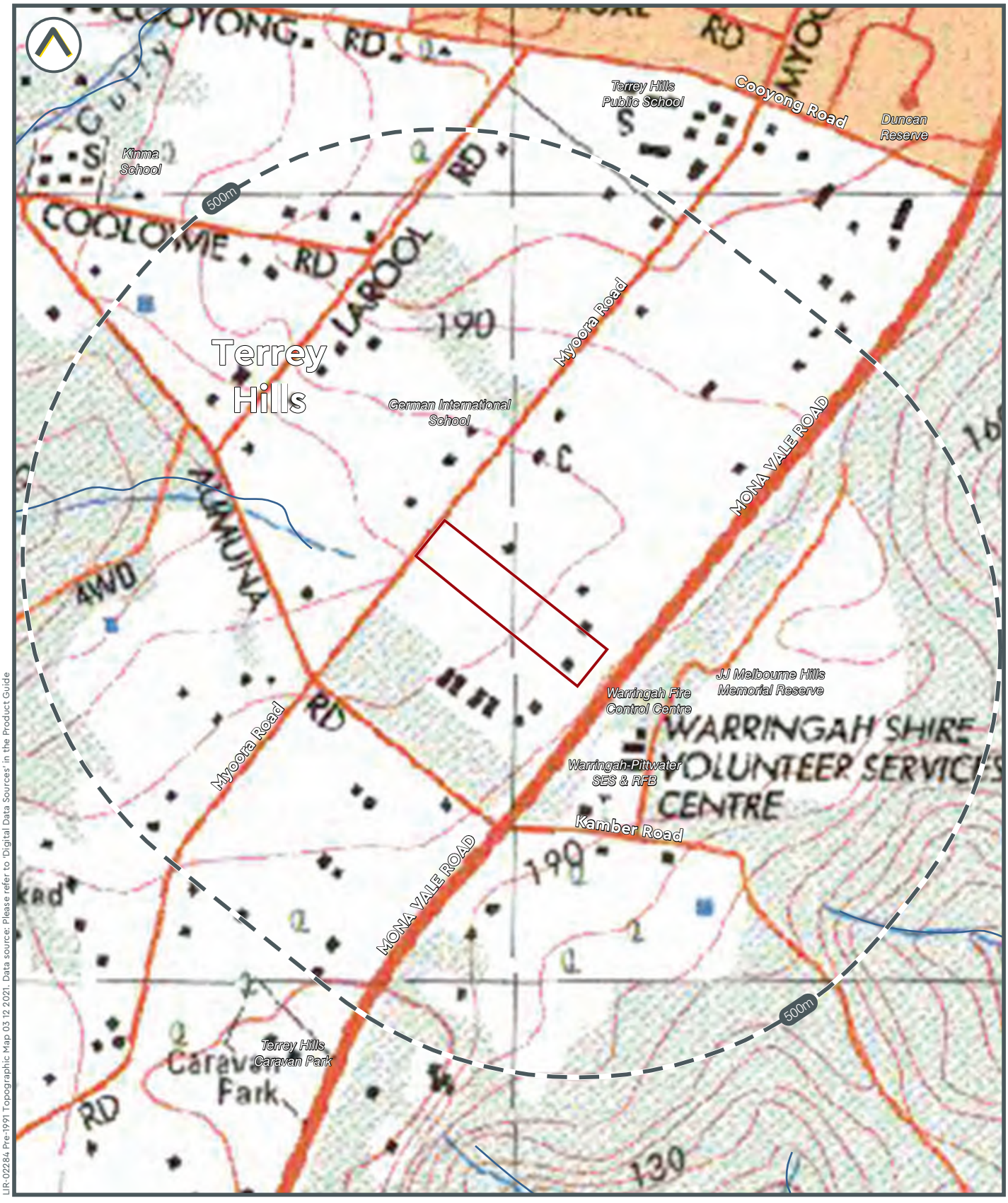
LIR-02284 Aerial Photograph 2021 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

1969-1991 1:25,000 Topographic Map - Hornsby (9130-4S)



Subject area

0 200m

LIR-02284 Pre-1991 Topographic Map 03 12 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight

Land Insight RESOURCES

Appendix G – Section 10.7 Certificate & Land Title Records

Northern Beaches Council Planning Certificate – Part 2&5

Applicant: Tim Land Insight & Resources
602/122 Arthur St
NORTH SYDNEY NSW 2060

Reference: LI-02286
Date: 03/12/2021
Certificate No. ePLC2021/9680

Address of Property: 40 Myoora Road TERREY HILLS NSW 2084
Description of Property: Lot 180 DP 752017

Planning Certificate – Part 2

The following certificate is issued under the provisions of Section 10.7(2) of the *Environmental Planning and Assessment Act 1979* (as amended – formerly Section 149). The information applicable to the land is accurate as at the above date.

1. Relevant planning instruments and Development Control Plans

1.1 The name of each environmental planning instrument that applies to the carrying out of development on the land:

1.1a) Local Environmental Plan

Warringah Local Environmental Plan 2011

1.1b) State Environmental Planning Policies and Regional Environmental Plans

State Environmental Planning Policy 19 – Bushland in Urban Areas
State Environmental Planning Policy 33 – Hazardous and Offensive Development
State Environmental Planning Policy 50 – Canal Estate Development
State Environmental Planning Policy 55 – Remediation of Land
State Environmental Planning Policy 64 – Advertising and Signage
State Environmental Planning Policy 65 – Design Quality of Residential Apartment Development
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
State Environmental Planning Policy (Infrastructure) 2007
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
State Environmental Planning Policy (State and Regional Development) 2011
State Environmental Planning Policy (State Significant Precincts) 2005

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017
State Environmental Planning Policy (Primary Production and Rural Development) 2019
State Environmental Planning Policy (Koala Habitat Protection) 2019
State Environmental Planning Policy (Housing) 2021
Sydney Regional Environmental Plan No 20-Hawkesbury-Nepean River (No 2-1997)
Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
Sydney Regional Environmental Plan No 9-Extractive Industry (No 2-1995)

1.2 Draft Environmental Planning Instruments

The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been subject of community consultation or on public exhibition under the Act (unless the Secretary has notified the Council that the making of the proposed instrument has been deferred indefinitely or has not been approved):

1.2 a) Draft State Environmental Planning Policies

Draft State Environmental Planning Policy (Environment)
Draft State Environmental Planning Policy (Short-term Rental Accommodation) 2019
Amendment to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
Draft Remediation of Land State Environmental Planning Policy (intended to replace State Environmental Planning Policy 55)

1.2 b) Draft Local Environmental Plans

Planning Proposal - Manly Warringah War Memorial State Park (Wakehurst Parkway, Allambie Heights)
Applies to: Crown Land: Lots 76 and 77 DP 504237; Lot 2 DP 710023.
Outline: Proposed amendment to WLEP 2011 to:

- Amend Land Zoning Map to change the zoning from R2 (Low Density Residential) to RE1 (Public Recreation) for Lots 76 and 77 DP 504237, Lot 2 DP 710023.
- Amend Height of Building Map and Minimum Lot Size Map to remove the residential development standards for height and minimum lot size from all of the subject lots.

Council resolution: 28 May 2019, 29 September 2020
Gateway Determination: 21 February 2021

Planning Proposal - Pittwater Road and Albert Street, Narrabeen
Applies to: 1294 - 1300 Pittwater Road and 2 - 4 Albert Street, Narrabeen
Outline: Amends WLEP 2011 to:

- Amend Warringah LEP 2011 Height of Buildings Map from 8.5m to 12m at 1298 and 1300 Pittwater Rd and from 8.5 to 11m at 1294, 1296 Pittwater Road and 4 Albert St Narrabeen.
- Amend Schedule 1 to allow 'medical centre', 'commercial premises' and 'shop top housing' as additional permitted uses at 1298 and 1300 Pittwater Rd Narrabeen.
- To implement Council's adopted Affordable Housing Contributions Scheme and to amend Warringah DCP 2011 for the subject site. at 2 Albert Street and 1294 Pittwater Road Narrabeen

1.3 Development Control Plans

The name of each development control plan that applies to the carrying out of development on the land:

Warringah Development Control Plan 2011

2. Zoning and land use under relevant Local Environmental Plans

For each environmental planning instrument or proposed instrument referred to in Clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

2.1 Zoning and land use under relevant Local Environmental Plans

2.1 (a), (b), (c) & (d)

The following information identifies the purposes for which development may be carried out with or without development consent and the purposes for which the carrying out of development is prohibited, for all zones (however described) affecting the land to which the relevant Local Environmental Plan applies.

EXTRACT FROM WARRINGAH LOCAL ENVIRONMENTAL PLAN 2011

Zone RU4 Primary Production Small Lots

1 Objectives of zone

• To enable sustainable primary industry and other compatible land uses.

• To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.

• To minimise conflict between land uses within this zone and land uses within adjoining zones.

• To minimise the impact of development on long distance views of the area and on views to and from adjacent national parks and bushland.

• To maintain and enhance the natural landscape including landform and vegetation.

• To ensure low intensity of land use other than land uses that are primary industry enterprises.

• To maintain the rural and scenic character of the land.

2 Permitted without consent

Home-based child care; Home occupations

3 Permitted with consent

Animal boarding or training establishments; Aquaculture; Bed and breakfast accommodation; Building identification signs; Business identification signs; Centre-based child care facilities; Community facilities; Dwelling houses; Environmental protection works; Extensive agriculture; Farm buildings; Home businesses; Home industries; Intensive plant agriculture; Landscaping material supplies; Plant nurseries; Recreation areas; Respite day care centres; Roads; Roadside stalls; Rural supplies; Veterinary hospitals

4 Prohibited

Any development not specified in item 2 or 3

Additional permitted uses

Additional permitted uses, if any, for which development is permissible with development consent pursuant to Clause 2.5 and Schedule 1 of the relevant Local Environmental Plan:

Schedule 1 Additional permitted uses

(Clause 2.5)

1 Use of certain land at 8 Aperta Place, Beacon Hill

(1) This clause applies to land at 8 Aperta Place, Beacon Hill, being Lot 7, DP 236335, shown as "Area 1" on the Additional Permitted Uses Map.

(2) Development for the purposes of 1 dwelling house is permitted with consent (provided that the design and construction of the development has regard to the topography, potential slip and sensitive visual character of the land as well as potential loss of views to adjoining or nearby properties).

2 Use of certain land at 5 Hews Parade, Belrose

(1) This clause applies to land at 5 Hews Parade, Belrose, being Lot 6, DP 834036, shown as "Area 2" on the Additional Permitted Uses Map.

(2) Development for the purposes of pubs is permitted with consent.

3 Use of certain land at corner of Mona Vale Road and Forest Way, Belrose

(1) This clause applies to land at the corner of Mona Vale Road and Forest Way, Belrose, shown as "Area 3" on the Additional Permitted Uses Map.

(2) Development for the purposes of bulky goods premises, business premises (with a gross floor area not exceeding 2,500m^2), function centres, hotel or motel accommodation, pubs and shops (with a gross floor area not exceeding 2,500m^2) is permitted with consent.

(3) Hotel or motel accommodation and pubs referred to in subclause (2) must include at least one room for the holding of conferences, functions and similar events.

4 Use of certain land in the vicinity of Ashworth and Haigh Avenues, Belrose and McBrien Place, Davidson and John Oxley Drive, Frenchs Forest

(1) This clause applies to land in the vicinity of Ashworth and Haigh Avenues, Belrose and McBrien Place, Davidson and John Oxley Drive, Frenchs Forest, shown as "Area 4A", "Area 4B" or "Area 4C" on the Additional Permitted Uses Map.

(2) Development for the purposes of 1 dwelling house on each lot is permitted with consent (provided that each dwelling is constructed having regard to the constraints, potential instability and visual sensitivity of the land and any impact on the water quality of Middle Harbour).

5 Use of certain land in the vicinity of Pittwater Road and Roger Street, Brookvale

(1) This clause applies to land in the vicinity of Pittwater Road and Roger Street, Brookvale, shown as "Area 5" on the Additional Permitted Uses Map.

(2) Development for the following purposes is permitted with consent:

(a) office premises,

(b) retail premises,

(c) shop top housing.

(3) Consent must not be granted under this clause to development for the purposes of shop top housing unless the consent authority is satisfied that the development will not have a significant

adverse impact on any adjoining land in Zone IN1 General Industrial.

6 Use of certain land at Cottage Point

(1) This clause applies to land at Cottage Point, being Lot 1, DP 930591, Lot 1, DP 922754, Lot 3, DP 929708 and Lot 4, DP 929708, shown as "Area 6" on the Additional Permitted Uses Map.

(2) Development for the purposes of kiosks, marinas, neighbourhood shops and registered clubs is permitted with consent.

7 Use of certain land at 2 Anderson Place, Cottage Point

(1) This clause applies to land at 2 Anderson Place, Cottage Point, being Lot 23, DP 819003, shown as "Area 7" on the Additional Permitted Uses Map.

(2) Development for the purposes of restaurants or cafes is permitted with consent.

8 Use of certain land at 30 Campbell Avenue, Cromer

(1) This clause applies to land at 30 Campbell Avenue, Cromer, being Lot 1, DP 227969, shown as "Area 8" on the Additional Permitted Uses Map.

(2) Development for the purposes of pubs is permitted with consent.

9 Use of certain land at Pittwater Road, Dee Why

(1) This clause applies to land at Pittwater Road, Dee Why, being Lot 1, DP 706230, shown as "Area 9" on the Additional Permitted Uses Map.

(2) Development for the purposes of recreational facilities (indoor) (provided that the facility operates in conjunction with a registered club) and registered clubs is permitted with consent.

10 Use of certain land at Melwood Avenue, Forestville

(1) This clause applies to land at Melwood Avenue, Forestville, being Lot 2589, DP 752038 and Lot 31, DP 366454, shown as "Area 10" on the Additional Permitted Uses Map.

(2) Development for the purposes of registered clubs is permitted with consent.

11 Use of certain land at corner of Warringah Road and Cook Street, Forestville and land on Pittwater Road, North Manly

(1) This clause applies to land at corner of Warringah Road and Cook Street, Forestville and land on Pittwater Road, North Manly, shown as "Area 11A" or "Area 11B" on the Additional Permitted Uses Map.

(2) Development for the purposes of industrial retail outlets, service stations, hardware and building supplies, vehicle body repair workshops, vehicle repair stations and wholesale supplies is permitted with consent.

12 Use of certain land at 39 Frenchs Forest Road East, Frenchs Forest

(1) This clause applies to land at 39 Frenchs Forest Road East, Frenchs Forest, being Lot X, DP 405206, shown as "Area 12" on the Additional Permitted Uses Map.

(2) Development for the purposes of pubs is permitted with consent.

13 Use of certain land at Lumsdaine Drive, Freshwater

(1) This clause applies to land at Lumsdaine Drive, Freshwater, being Lot 100, DP 1136132 and Lot 2, DP 579837, shown as "Area 13" on the Additional Permitted Uses Map.

(2) Development for the purposes of recreation facilities (indoor), recreation facilities (outdoor) (but only if the facility, whether indoor or outdoor, operates in conjunction with a registered club) and registered clubs is permitted with consent.

14 Use of certain land at 29 Moore Road, Freshwater

(1) This clause applies to land at 29 Moore Road, Freshwater, being Lots 1-5, Section 1, DP 7022 and Lot 13, Section 1, DP 7022, shown as "Area 14" on the Additional Permitted Uses Map.

(2) Development for the purposes of pubs is permitted with consent.

15 Use of certain land at 80 Undercliff Road, Freshwater

(1) This clause applies to land at 80 Undercliff Road, Freshwater, being Lot B, DP 329073, shown as "Area 15" on the Additional Permitted Uses Map.

(2) Development for the purposes of restaurants or cafes is permitted with consent.

16 Use of certain land at 1260 Pittwater Road, Narrabeen

(1) This clause applies to land at 1260 Pittwater Road, Narrabeen, being Lots 1 and 2, DP 1094308, shown as "Area 16" on the Additional Permitted Uses Map.

(2) Development for the purposes of hotel or motel accommodation is permitted with consent.

17 Use of certain land at 2 Aumuna Road, Terrey Hills

(1) This clause applies to land at 2 Aumuna Road, Terrey Hills, being Lot 6, DP 739456, shown as "Area 17" on the Additional Permitted Uses Map.

(2) Development for the purposes of educational establishments, garden centres, hospitals, hotel or motel accommodation, places of public worship, pubs, recreation areas, recreation facilities (indoor), recreation facilities (outdoor), registered clubs and restaurants or cafes is permitted with consent.

18 Use of certain land in the vicinity of Mona Vale and Myoora Roads, Terrey Hills

(1) This clause applies to land in the vicinity of Mona Vale and Myoora Roads, Terrey Hills, shown as "Area 18" on the Additional Permitted Uses Map.

(2) Development for the purposes of educational establishments, garden centres, hospitals, hotel or motel accommodation, places of public worship, recreation areas, recreation facilities (indoor), recreation facilities (outdoor), registered clubs and restaurants or cafes is permitted with consent.

19 Use of certain land in Zone RE1

(1) This clause applies to the following land:

(a) land at Collaroy, known as Long Reef Golf Club, being Lot 1, DP 1144187, shown as "Area 19A" on the Additional Permitted Uses Map,

(b) land at Manly Vale, known as Manly Vale Bowling Club, being part of Lot 2743, DP 752038, shown as "Area 19B" on that map,

(c) land at North Balgowlah, known as Wakehurst Golf Club, being Lot 2730, DP 752038, shown as "Area 19C" on that map,

(d) land at North Manly, known as North Manly Bowling Club, being part of Lot 2743, DP 752038, shown as "Area 19D" on that map.

(2) Development for the purposes of registered clubs is permitted with consent if the registered club is incidental or ancillary to a recreation facility (indoor), recreation facility (major) or recreation facility (outdoor).

20 Use of certain land at Bundaleer Street, Belrose

(1) This clause applies to land at Bundaleer Street, Belrose, being Lot 2, DP 1144741, shown as "Area 20" on the Additional Permitted Uses Map.

(2) Development for the purposes of recreation facilities (outdoor) is permitted with consent.

21 Use of certain land at 184 Wyndora Avenue, Freshwater

(1) This clause applies to land at 184 Wyndora Avenue, Freshwater, being Lots 1, 2, 33, 34 and 35, DP 7912, shown as "Area 21" on the Additional Permitted Uses Map.

(2) Subdivision of the land and development for the purposes of attached dwellings is permitted with consent.

(3) Development consent may only be granted under this clause to a single development application that provides for:

(a) the subdivision of the land to create not more than 14 lots, and

(b) the erection of not more than 14 attached dwellings.

(4) Consent must not be granted under this clause to development for the purposes of an attached dwelling unless the consent authority is satisfied that the proposed development includes a single basement car park providing parking spaces for each of the dwellings erected on the land to which this clause applies.

22 22 Use of certain land at 632 and 634 Warringah Road, Forestville

(1) This clause applies to land at 632 and 634 Warringah Road, Forestville, being Lots 9 and 8, DP 25052, shown as "Area 22" on the Additional Permitted Uses Map.

(2) Development for the purposes of:

(a) a service station, and

(b) a neighbourhood shop (with a retail floor area not exceeding 240m2),is permitted with consent if the land is used for both purposes, concurrently.

23 23 Use of certain land at 729-731 Pittwater Road, Dee Why

(1) This clause applies to land at 729-731 Pittwater Road, Dee Why, being

Lot CP, SP 13436, shown as "Area 23" on the Additional Permitted Uses Map.

(2) Development for the purposes of medical centres and office premises is permitted with consent.

(e) Minimum land dimensions

The *Warringah Local Environmental Plan 2011* contains no development standard that fixes minimum land dimensions for the erection of a dwelling house on the land.

(f) Critical habitat

The land does not include or comprise critical habitat.

(g) Conservation areas

The land is not in a heritage conservation area.

(h) Item of environmental heritage

The land does not contain an item of environmental heritage.

2.2 Draft Local Environmental Plan - if any

For any proposed changes to zoning and land use, see Part 1.2 b)
Please contact Council's Strategic and Place Planning unit with enquiries on 1300 434 434.

2A. Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

The *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* does not apply to the land.

3. Complying Development

The extent to which the land is land on which complying development may or may not be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

a) Housing Code

Complying Development under the Housing Code may be carried out on all of the land.

b) Rural Housing Code

Complying Development under the Rural Housing Code may be carried out on all of the land.

c) Low Rise Housing Diversity Code

Complying Development under the Low Rise Housing Diversity Code may be carried out on all of the land.

d) Greenfield Housing Code

Complying Development under the Greenfield Housing Code may not be carried out on all of the land.

e) Housing Alterations Code

Complying Development under the Housing Alterations Code may be carried out on all of the land.

f) General Development Code

Complying Development under the General Development Code may be carried out on all of the land.

g) Commercial and Industrial Alterations Code

Complying Development under the Commercial and Industrial Alterations Code may be carried out on all of the land.

h) Commercial and Industrial (New Buildings and Additions) Code

Complying Development under the Commercial and Industrial (New Buildings and Additions) Code may be carried out on all of the land.

i) Container Recycling Facilities Code

Complying Development under the Container Recycling Facilities Code may be carried out on all of the land.

j) Subdivisions Code

Complying Development under the Subdivisions Code may be carried out on all of the land.

k) Demolition Code

Complying Development under the Demolition Code may be carried out on all of the land.

l) Fire Safety Code

Complying Development under the Fire Safety Code may be carried out on all of the land.

m) Inland Code

Complying Development under the Inland Code does not apply to the land.

Note: Pursuant to clause 3D.1 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*, the Inland Code only applies to 'inland local government areas'. Northern Beaches local government area is not defined as an 'inland local government area' by *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

4, 4A (Repealed)

4B. Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

The owner of the land (or any previous owner) has not consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

5. Mine Subsidence

The land has not been proclaimed to be a mine Subsidence (Mine Subsidence) district within the meaning of section 15 of the *Mine Subsidence (Mine Subsidence) Compensation Act, 1961*.

6. Road widening and road realignment

(a) The land is not affected by a road widening or re-alignment proposal under Division 2 of Part 3 of the *Roads Act 1993*.

(b) The land is not affected by a road widening or re-alignment proposal under an environmental planning instrument.

(c) The land is not affected by a road widening or re-alignment proposal under a resolution of Council.

7. Council and other public authority policies on hazard risk restriction

(a) Council has adopted a number of policies with regard to various hazards or risks which may restrict development on this land. The identified hazard or risk and the respective Council policies which affect the property, if any, are listed below (other than flooding – see 7A):

Nil

(b) The following information applies to any policy as adopted by any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in a planning certificate issued by the Council. The identified hazard or risk and the respective Policy which affect the property, if any, are listed below:

Bush Fire Prone Land
This land is identified on a Bush Fire Prone Land map certified by the Commissioner of the NSW Rural Fire Service as being bush fire prone land. The requirements of the NSW Rural Fire Service document Planning for Bush Fire Protection apply to this land. For further information please contact the Northern Beaches District NSW Rural Fire Service.

7A. Flood related development control Information

(1) The land is not within the flood planning area and subject to flood related development controls.

(2) The land or part of the land is not between the flood planning area and the probable maximum flood and subject to flood related development controls.

(3) In this clause—

flood planning area has the same meaning as in the Floodplain Development Manual.

Floodplain Development Manual means the Floodplain Development Manual (ISBN 0 7347 5476 0) published by the NSW Government in April 2005.

probable maximum flood has the same meaning as in the Floodplain Development Manual.

8. Land reserved for acquisition

Environmental planning instrument referred to in Clause 1 does not make provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

9. Contribution plans

The following applies to the land:

Northern Beaches Section 7.12 Contributions Plan 2019

9A. Biodiversity certified land

The land is not biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016* (includes land certified under Part 7AA of the repealed *Threatened Species Conservation Act 1995*).

10. Biodiversity Stewardship Sites

The Council has not been notified by the Chief Executive of the Office of Environment and Heritage that the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* (includes land to which a biobanking agreement under Part 7A of the repealed *Threatened Species Conservation Act 1995* relates).

10A. Native vegetation clearing set asides

Council has not been notified by Local Land Services of the existence of a set aside area under section 60ZC of the *Local Land Services Act 2013*.

11. Bush fire prone land

Bush Fire Prone Land
Some of the land is bush fire prone land.

12. Property vegetation plans

The Council has not been notified that the land is land to which a vegetation plan under the *Native Vegetation Act 2003* applies.

13. Orders under Trees (Disputes Between Neighbours) Act 2006

Council has not been notified of the existence of an order made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land.

14. Directions under Part 3A

There is not a direction by the Minister in force under section 75P(2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect.

15. Site compatibility certificates and conditions for seniors housing

(a) There is not a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land.

(b) No condition of consent applies to the property that limits the kind of people who may occupy the premises/ development. This refers only to consents granted after 11 October 2007 with conditions made in accordance with clause 18(2) of *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*.

16. Site compatibility certificates for infrastructure, schools or TAFE establishments

There is not a valid site compatibility certificate (infrastructure) or site compatibility certificate (schools or TAFE establishments), of which the council is aware, in respect of proposed development on the land.

17. Site compatibility certificate and conditions for affordable rental housing

(a) There is not a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land.

(b) There are not terms of a kind referred to in clause 17 (1) or 38 (1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land.

18. Paper subdivision information

There is no current paper subdivision, of which council is aware, in respect of this land according to Part 16C of the *Environmental Planning and Assessment Regulation 2000*.

19. Site verification certificates

There is no current site verification certificate, of which council is aware, in respect of the land according to Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

20. Loose-fill asbestos insulation

The residential dwelling erected on this land has not been identified in the Loose-Fill Asbestos Insulation Register as containing loose-fill asbestos ceiling insulation.

This clause applies to residential premises (within the meaning of Division 1A of part 8 of the Home Building Act 1989) that are listed in the register that is required to be maintained under that Division.

Contact NSW Fair Trading for more information.

21 Affected building notices and building product rectification orders

1) There is not an affected building notice of which the council is aware that is in force in respect of the land.
2) There is not a building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with, and
3) There is not a notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding.

In this clause:

affected building notice has the same meaning as in Part 4 of the *Building Products (Safety) Act 2017*.
building product rectification order has the same meaning as in the *Building Products (Safety) Act 2017*.

Additional matters under the Contaminated Land Management Act 1997

Note. The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

(a) the land to which the certificate relates is not significantly contaminated land within the meaning of that Act

(b) the land to which the certificate relates is not subject to a management order within the meaning of that Act

(c) the land to which the certificate relates is not the subject of an approved voluntary management proposal within the meaning of that Act

(d) the land to which the certificate relates is not subject to an ongoing maintenance order within the meaning of that Act

(e) the land to which the certificate relates is not the subject of a site audit statement

If contamination is identified above please contact the Environmental Protection Authority (EPA) for further information.

Planning Certificate – Part 5

ePLC2021/9680

The following is information provided in good faith under the provisions of Section 10.7(5) of the *Environmental Planning and Assessment Act 1979* (as amended – formerly Section 149) and lists relevant matters affecting the land of which Council is aware. The Council shall not incur any liability in respect of any such advice.

Persons relying on this certificate should read the environmental planning instruments referred to in this certificate.

Company Title Subdivision

Clause 4.1 of the *Pittwater Local Environmental Plan 2014*, *Warringah Local Environmental Plan 2011* or *Manly Local Environmental Plan 2013* provides that land may not be subdivided except with the consent of the Council. This includes subdivision by way of company title schemes. Persons considering purchasing property in the Northern Beaches local government area the subject of a company title scheme are advised to check that the land has been subdivided with the consent of the Council.

District Planning

Under the Greater Sydney Regional Plan – A Metropolis of Three Cities 2018, the Greater Sydney Commission sets a planning framework for a metropolis of three cities across Greater Sydney which reach across five Districts. Northern Beaches is located within the 'Eastern Harbour City' area and is in the North District which forms a large part of the Eastern Harbour City. The North District Plan sets out planning priorities and actions for the growth of the North District, including Northern Beaches. Northern Beaches Council's Local Strategic Planning Statement gives effect to the District Plan based on local characteristics and opportunities and Council's own priorities in the community. The Local Strategic Planning Statement came into effect on 26 March 2020.

Council Resolution To Amend Environmental Planning Instrument

The following instrument or resolution of Council proposes to vary the provisions of an environmental planning instrument, other than as referred to in the Planning Certificate – Part 2:

Planning Proposal - rezone deferred land within the Oxford Falls Valley & Belrose North area

Applies to land: Land within the B2 Oxford Falls Valley and C8 Belrose North localities of WLEP 2000 and land zoned E4 Environmental Living under WLEP 2011 at Cottage Point (Boundaries identified within the Planning Proposal)

Outline: Amends WLEP 2000 and WLEP 2011 to:

- Transfer the planning controls for land within the B2 Oxford Falls Valley and C8 Belrose North localities of WLEP 2000 into the best fit zones and land use controls under WLEP 2011
- Rezone the majority of the subject land to E3 Environmental Management under WLEP 2011
- Rezone smaller parcels of land to E4 Environmental Living, RU4 Primary Production Small Lots, SP2 Infrastructure, SP1 Special Activities, R5 Large Lot Residential and R2 Low Density Residential under WLEP 2011
- Include various parcels of land as having additional permitted uses under Schedule 1 of WLEP 2011

Council resolution: 24 February 2015

Additional Information Applying To The Land

Additional information, if any, relating to the land the subject of this certificate:

Councils protection of Waterways and Riparian Land Policy

Council's Protection of Waterways and Riparian Land Policy (former Warringah) applies to the land.

General Information

Threatened Species

Many threatened species identified under the *Biodiversity Conservation Act 2016* (NSW) and Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth) are found within the former Local Government Area of Warringah (now part of Northern Beaches). Council's Natural Environment unit can be contacted to determine whether any site specific information is available for this property. Records of threatened flora and fauna are also available from the NSW Office of Environment and Heritage's Atlas of NSW Wildlife database: <http://www.bionet.nsw.gov.au>

Potential threatened species could include:

(a) threatened species as described in the final determination of the scientific committee to list endangered and vulnerable species under Schedule 1 of the *Biodiversity Conservation Act 2016*, and/or

(b) one or more of the following threatened ecological communities as described in the final determination of the scientific committee to list the ecological communities under Schedule 2 of the *Biodiversity Conservation Act 2016*:

- Duffys Forest Ecological Community in the Sydney Basin Bioregion
- Swamp Sclerophyll Forest on Coastal Floodplain
- Coastal Saltmarsh of the Sydney Basin Bioregion
- Swamp Oak Floodplain Forest
- Bangalay Sand Forest of the Sydney Basin Bioregion
- Themeda grasslands on Seacliffs and Coastal Headlands
- Sydney Freshwater Wetlands in the Sydney Basin Bioregion
- Coastal Upland Swamp in the Sydney Basin Bioregion
- River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

Bush fire
Certain development may require further consideration under section 79BA or section 91 of the Environmental Planning and Assessment Act 1979, and section 100B of the Rural Fires Act, 1997 with respect to bush fire matters. Contact NSW Rural Fire Service.

Aboriginal Heritage
Many Aboriginal objects are found within the Local Government Area. It is prudent for the purchaser of land to make an enquiry with the Office of Environment and Heritage as to whether any known Aboriginal objects are located on the subject land or whether the land has been declared as an Aboriginal place under the *National Parks and Wildlife Act 1974* (NSW). The carrying out of works may be prevented on land which is likely to significantly affect an Aboriginal object or Aboriginal place. For information relating to Aboriginal sites and objects across NSW, contact: Aboriginal Heritage Information Management System (AHIMS) on (02) 9585 6345 or email **AHIMS@environment.nsw.gov.au**. Alternatively visit http://www.environment.nsw.gov.au/licences/AboriginalHeritageInformationManagementSystem.htm.

Coastal Erosion
Information available to Council indicates coastal erosion may affect a greater number of properties and may present an increased risk to properties than that shown on published hazard maps of the Warringah coastline. Council's Natural Environment Unit can be contacted for further information.

Ray Brownlee PSM
Chief Executive Officer
03/12/2021

triSearch®

Summary of Owners Report

Address: - 40 Myoora Road, Terrey Hills

Description: - Lots 38 D.P. 752017
(Limited to a depth of 15.24 metres)

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
20.04.1881	Rail Reserve No. 63	Gazette Revoked 10.3.1939
27.11.1931 (1931 to 1948?)	Richard Shinfield	Crown Tenure Special Lease 1931/37 Metropolitan Expired 31.12.1948
31.12.1948	Reserved from Sale or Lease	
25.11.1947 (1947 to 1954)	Arthur Rule Peterson	Crown Tenure Special Lease 1931/37 Metropolitan Now Crown Tenure Conditional Purchase 1947/166 Metropolitan
03.08.1954 (1954 to 1959)	Norman Leslie Harris (Mechanic) (& his deceased estate)	Crown Tenure Conditional Purchase 1947/166 Metropolitan (Book 2313 No. 315)
17.09.1959 (1959 to 1985)	Geroge William England (Poultry Farmer) Mavis Jane England (Married Woman)	Crown Tenure Conditional Purchase 1947/166 Metropolitan (Book 2503 No. 908) Now Vol 8309 Fol 116
26.09.1985 (1985 to 1991)	Barry George England Antonetta Johanna England	Vol 8309 Fol 116 Now 38/752017
10.01.1991 (1991 to 2019)	Philip James Johnston	38/752017
08.04.2019 (2019 to date)	# Terrey Hills No 2 Pty Ltd	38/752017

 # Denotes current registered proprietor

Easements: - NIL

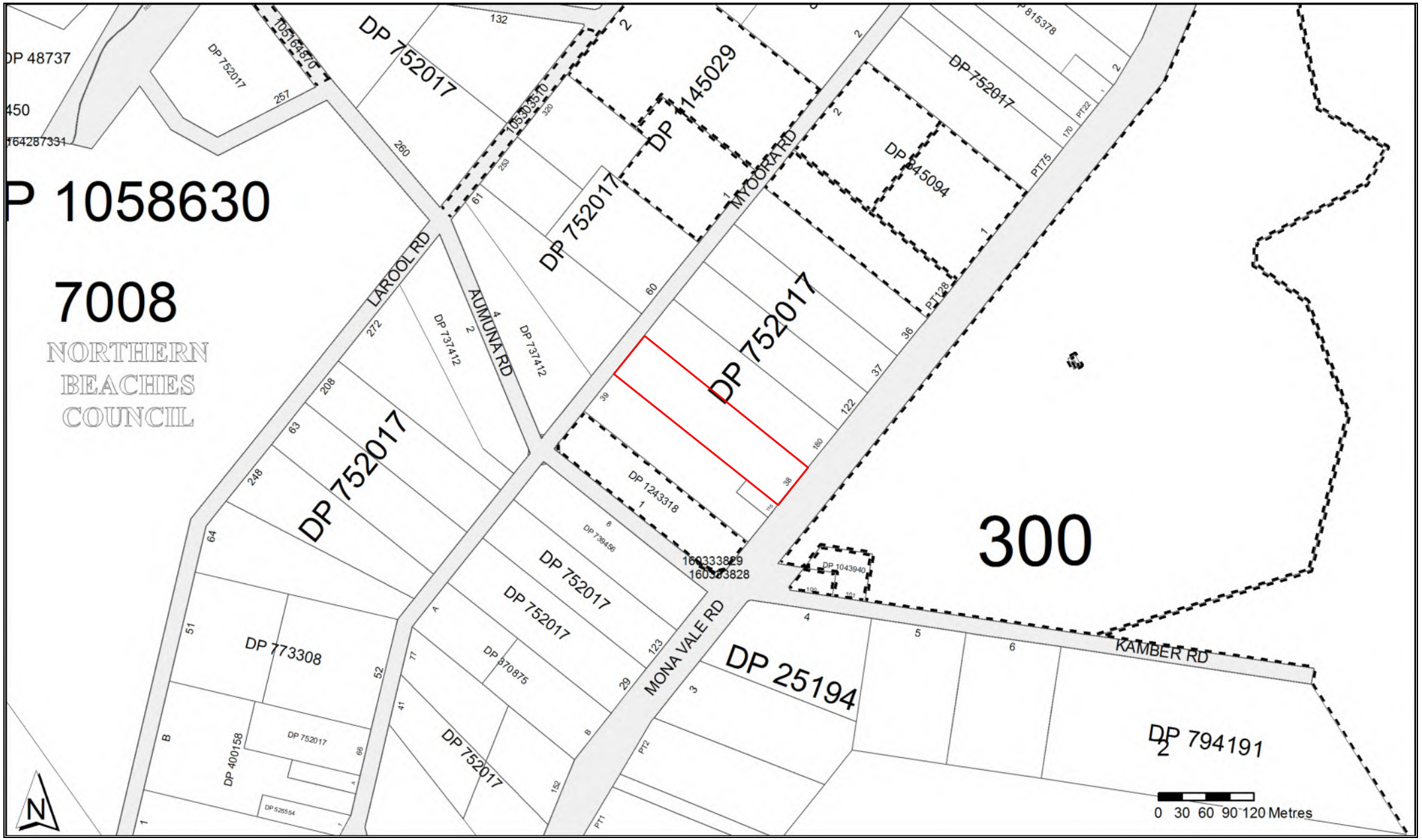
Leases: -

- Various leases and sub leases were found from 4th August 2010 that have since expired or have been surrendered – not investigated.
- 05.03.2019 (AP 78705) to Gosford Quarries Pty Limited – expires 01.08.2026, also 5 year option.

Yours Sincerely
Mark Groll
15 December 2021

Cadastral Records Enquiry Report : Lot 38 DP 752017

Locality : TERREY HILLS
Parish : BROKEN BAY
LGA : NORTHERN BEACHES
County : CUMBERLAND



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

A.300

Cancels pt C.4298 2030

~~Within R.R.63 Not^d 20. Apl 1881~~ Revoked Gaz. 11.4.47.

NOTATION PLAN

Papers L.B.44.70.
S 44.6442

PLAN OF PORTION 38

Parish of Broken Bay County of Cumberland

LAND DISTRICT OF METROPOLITAN LAND BOARD DISTRICT OF SYDNEY

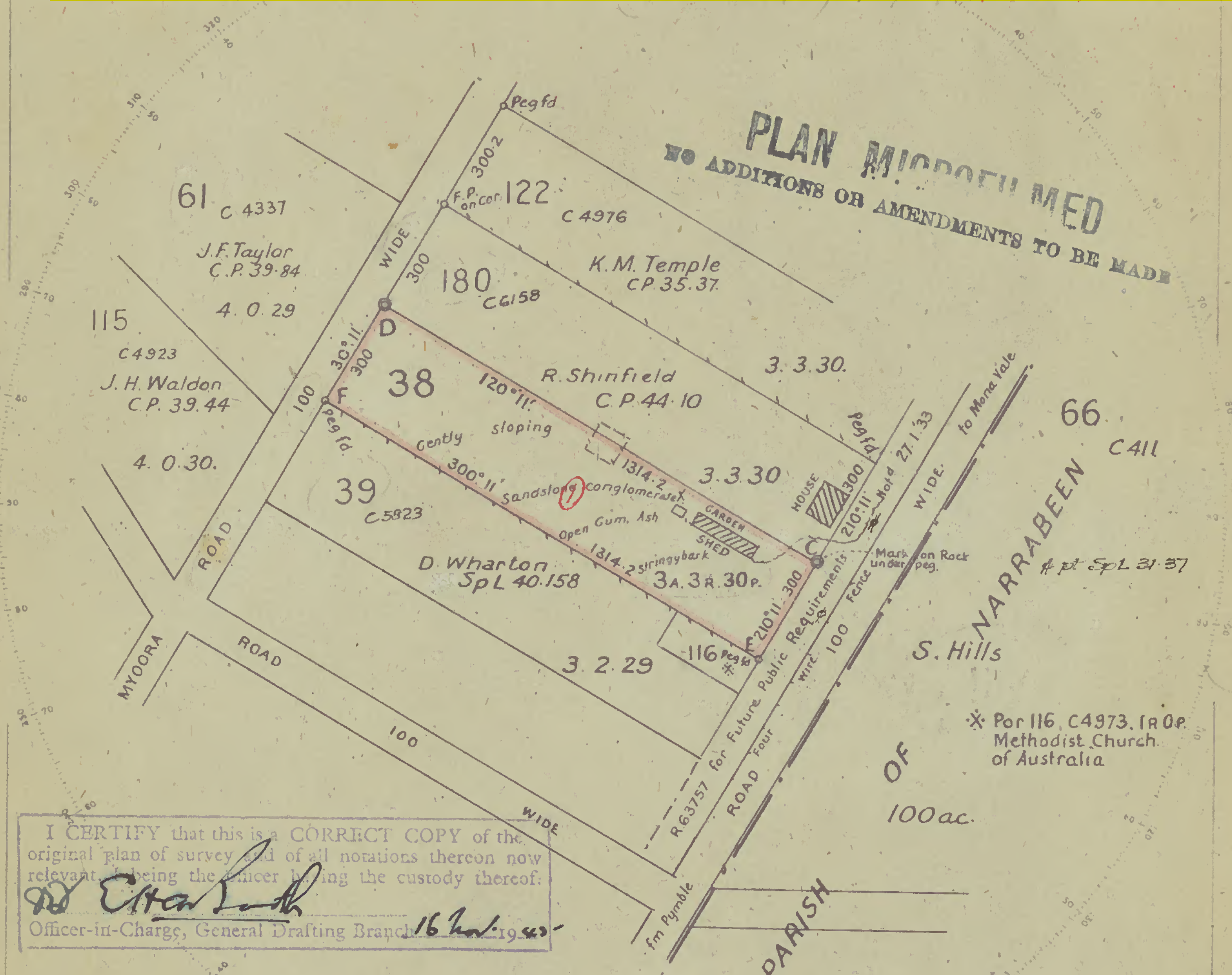
WARRINGAH SHIRE

Applied for under the Section of the Crown Lands Consolidation Act 1913 by

pt ~~Special Lease 31.37 Richard Shinfield~~ Abt. 4 ac 2r 7 p. Exp. 31.12.40. Rf. S.L.

~~CP 45.13 Jan^y 26^th Arthur Rule Peterson (Conv)~~ Withdrawn

(1) Por. 38: Now ~~part~~ CP 47.165 Nov^r 25^th Arthur Rule Peterson (Conv^n) Approved. Now George William England and Mavis Jane England. Sale Completed. Ten.59.5812. Grant limited to surface & depth of 50feet.



I CERTIFY that this is a CORRECT COPY of the original plan of survey and of all notations thereon now relevant, I being the officer having the custody thereof.

Officer-in-Charge, General Drafting Branch 16 Nov 1945

Azimuth taken from F.E

Field Book LD1192 Page 11

Reference to Corners

Corner	Bearing	From	Links	№ on Tree
C	16°19'	M^n Ash	57.6	38.180
D	36°44'	Gum	36.1	180.38
E	Numbered peg at corner			
F	do	do	do	
REFERENCE MARKS				
C	300°11'	G.I.Pipe	2.27	
D	120°11'	G.I.Pipe	2.27	

Reference to Traverse

Line	Bearing	Distance

NOTATION PLAN

6157-2030

I Arthur Aston Peirce of Sydney a Surveyor registered under the Surveyors Act, 1929 do hereby solemnly and sincerely declare that the survey represented in this plan has been made by me in accordance with the Survey Practice Regulations 1933 and the special requirements of the Department of Lands was completed on the 29^th June 1945, and the reference marks have been placed as shewn hereon.

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

A.A. Peirce
Surveyor registered under the Surveyors Act, 1929

Subscribed and declared before me at Sydney this tenth day of August 1945

E.H.A. Booth
Justice of the Peace

Transmitted to the District Surveyor with my letter of 17^th Aug 1945 No 1

Checked and Charted J. Hughes 20 Sep 1945

Examined and Plan approved J.E. Foxall
General Drafting Branch
16 Nov 1945

Scale 4 Chains to an Inch

Cat. No C 6157.2030

LAND REGISTRY SERVICES

Historical Title

Information Provided Through
triSearch (Website)
Ph. 1300 064 452 Fax.

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
15/12/2021 7:03AM

FOLIO: 38/752017

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 8309 FOL 116

Recorded	Number	Type of Instrument	C.T. Issue
27/2/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
6/6/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
10/1/1991	Z427022	DISCHARGE OF MORTGAGE	
10/1/1991	Z427023	TRANSFER	
10/1/1991	Z427024	MORTGAGE	EDITION 1
15/1/1992	E189489	POSITIVE COVENANT	EDITION 2
25/8/1993	I590375	DISCHARGE OF MORTGAGE	
25/8/1993	I590376	MORTGAGE	EDITION 3
20/8/1997		AMENDMENT: LOCAL GOVT AREA	
9/12/1998	5452181	DEPARTMENTAL DEALING	
4/8/2010	AF672035	DISCHARGE OF MORTGAGE	
4/8/2010	AF672036	LEASE	
4/8/2010	AF672037	SUB-LEASE	EDITION 4
14/8/2013	AH878090	RESTRICTION ON USE OF LAND BY/VESTED IN PRESCRIBED AUTHORITY	
14/8/2013	AH878091	POSITIVE COVENANT	EDITION 5
25/5/2016	AK461417	VARIATION OF LEASE	
22/6/2016	AK280874	SUB-LEASE	
24/1/2019	AN773623	REJECTED - LEASE	
4/2/2019	AN958204	SURRENDER OF LEASE	EDITION 6
5/3/2019	AP78705	LEASE	EDITION 7
8/4/2019	AP171590	TRANSFER	
8/4/2019	AP171591	MORTGAGE	EDITION 8

END OF PAGE 1 - CONTINUED OVER

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
15/12/2021 7:03AM

FOLIO: 38/752017 PAGE 2

Recorded	Number	Type of Instrument	C.T. Issue
			CORD ISSUED
23/9/2021	AR445832	VARIATION OF LEASE	

*** END OF SEARCH ***

RP 13 STAMP DUTY [redacted] OFFICE USE ONLY

B

Z 427023 E

TRANSFER

REAL PROPERTY ACT, 1900

T 32 of 93 X

$ 47

R 2/3

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
DESCRIPTION OF LAND Note (a) Folio Identifier 38/752017 NOW BEING ____ OF LAND COMPRISED IN FOLIO/C.T. ____	WHOLE	Terrey Hills

TRANSFEROR Note (b) BARRY GEORGE ENGLAND and ANTONETTA JOHANNA ENGLAND

ESTATE Note (c) (the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 1,000,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d) PHILIP JAMES JOHNSTON of 5 Herbert Avenue, Wahroonga.

OFFICE USE ONLY S

TENANCY Note (e) ~~as joint tenants/tenants in common~~

PRIOR ENCUMBRANCES Note (f) subject to the following PRIOR ENCUMBRANCES 1. ..... 2. ..... 3. .....

DATE 29th June, 1990

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

EXECUTION Note (g)

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

..... Signature of Witness

FREDERICK EUGENE FISCHER
Name of Witness (BLOCK LETTERS)

Solicitor, Pymble
Address and occupation of Witness

B England
A England
Signature of Transferor

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

Note (g)

..... Signature of Witness

..... Name of Witness (BLOCK LETTERS)

..... Address and occupation of Witness

..... Signature of Transferee

Solicitor
John Anthony Taylor

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

LODGED BY

F. E. FISCHER & CO.
SOLICITORS
2/955 PACIFIC HIGHWAY
PYMBLE N.S.W. 2073
P.O. BOX 149 PYMBLE 2073
OR DX 1074 SYDNEY
449 4422

Delivery Box Number 298T

LOCATION OF DOCUMENTS

CT	OTHER	
/		Herewith.
		In L.T.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed
EC4	
Signed	Extra Fee

REGISTERED - -19

10 JAN 1991

Secondary Directions

Delivery Directions

Consent to L/P.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 38/752017

SEARCH DATE	TIME	EDITION NO	DATE
15/12/2021	7:03 AM	8	8/4/2019

LAND

LOT 38 IN DEPOSITED PLAN 752017
LOCAL GOVERNMENT AREA NORTHERN BEACHES
PARISH OF BROKEN BAY COUNTY OF CUMBERLAND
(FORMERLY KNOWN AS PORTION 38)
TITLE DIAGRAM CROWN PLAN 6157.2030

FIRST SCHEDULE

TERREY HILLS NO2 PTY LTD (T AP171590)

SECOND SCHEDULE (7 NOTIFICATIONS)

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1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
2 EXCEPTING LAND BELOW A DEPTH FROM THE SURFACE OF 15.24 METRES BY THE CROWN GRANT
3 E189489 POSITIVE COVENANT
4 AH878090 RESTRICTION(S) ON THE USE OF LAND
5 AH878091 POSITIVE COVENANT
6 AP78705 LEASE TO GOSFORD QUARRIES PTY LIMITED OF 301A MONA VALE ROAD, TERRY HILLS. EXPIRES: 1/8/2021. OPTION OF RENEWAL: 3 YEARS.
* AR445832 VARIATION OF LEASE AP78705 EXPIRY DATE NOW 1/8/2026. OPTION OF RENEWAL: MODIFIED TO A FURTHER OPTION OF 5 YEARS.
7 AP171591 MORTGAGE TO NATIONAL AUSTRALIA BANK LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***