REPORT TO

HEALTH INFRASTRUCTURE

ON

DETAILED SITE INVESTIGATION

FOR

PROPOSED HOSPITAL REDEVELOPMENT

AT

TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Date: 9 May 2024

Ref: E35822PRrpt3Rev1

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Executive Summary

Health Infrastructure ('the client') commissioned JK Environments (JKE) to undertake a Detailed Site Investigation (DSI) for the proposed hospital redevelopment at Temora Hospital, 169-189 Loftus Street, Temora, NSW ('the site'). The purpose of the investigation is to make an assessment of site contamination and inform the preparation of a Remediation Action Plan (RAP). The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2 attached in the appendices.

This report has been prepared to support the lodgement of a State Significant Development Application (SSDA) for the proposed hospital redevelopment, with regards to Chapter 4 of State Environmental Planning Policy (Resilience and Hazards) 2021.

JKE understand that the proposed development includes the demolition of the existing buildings and structures, and construction of a single-storey hospital building within the northern portion of the site. A loading area and staff carpark is proposed to the north of the building, and a public carpark to the south-west and west of the building. The southern extent of the existing driveway is to be retained and incorporated into the redevelopment. The southern portion of the site, and the areas surrounding the building and carparks, are proposed to be landscaped. Bulk earthworks (cut/fill) will be required to accommodate the proposed development, with excavation to depths of approximately 2-3m below ground level (BGL) anticipated. Similar extents of filling are anticipated. Selected schematic design drawings provided to JKE are attached in the appendices.

The primary aims of the investigation were to further characterise the site and make an assessment of the soil contamination conditions, and inform the preparation of a RAP. The investigation included a review of historical information presented in the Preliminary Site Investigation (PSI) and soil sampling from 63 additional locations. The site history indicated that the site was historically used for residential and agricultural (grazing) purposes until the late 1930's, and has been used for a hospital since.

The investigation identified fill and/or clay soils to depths of approximately 0.1m to 1.2m below ground level (BGL), underlain by andesite bedrock. The maximum depth of fill encountered during the DSI was 0.9m. Fill was encountered to a maximum depth of 1.1m during the PSI. Groundwater was not encountered during the investigation. The fill typically comprised of silty clay with inclusions of ash, slag, gravel, cobbles, boulders, volcanic breccia, building rubble (concrete, asphaltic concrete [AC], ceramic, metal, plastic and glass fragments), roots and root fibres.

The DSI identified fill soils impacted by lead, total recoverable hydrocarbons (TRHs) and carcinogenic polycyclic aromatic hydrocarbons (PAHs) at concentrations that were above the nominated site assessment criteria (SAC). A subsurface asbestos pipe was identified at TP153 during the DSI and the PSI identified a fragment of bonded asbestos containing material (ACM) in the surficial soil in BH4. Elevated copper concentrations above the SAC were also identified in several of the analysed fill, natural soil and rock samples though were considered to be representative of the regional conditions.

Based on the available results, and at the time of reporting, the following preliminary waste classifications are assigned:

- Fill in the vicinity of TP153 is assigned a preliminary classification of **Restricted Solid Waste containing Special Waste (asbestos)**;
- Fill in the vicinity of BH15 and BH162 is assigned a preliminary classification of **Restricted Solid Waste**;
- Fill in the vicinity of BH4 is assigned a preliminary classification of **General Solid Waste (non-putrescible) containing Special Waste (asbestos)**;
- Fill in other areas tested as part of this investigation is assigned a preliminary classification of **General Solid Waste (non-putrescible)**;
- Natural silty clay and sandy silty clay soil is assigned a preliminary classification of **General Solid Waste (non-putrescible)** due to the elevated PAH concentrations recorded in several samples; and
- Andesite bedrock within the site will likely meet the definition of **Virgin Excavated Natural Material (VENM)** for off-site disposal or re-use purposes. Though the bedrock will likely meet the definition of VENM, an assessment will be required to confirm the bedrock is suitable from a contamination perspective in the context of the proposed re-use due to the elevated copper concentrations.

Based on the findings of the investigation, JKE is of the opinion that the site can be made suitable for the proposed development via remediation. We recommend that a site-specific human health and ecological risk assessment (HHERA) be undertaken by a specialist consultant. The SAC adopted for the PSI and DSI are considered to be relatively conservative for a hospital land use scenario, and further consideration of the specific proposed development details may enable site specific criteria to be developed or alternative Tier 1 criteria to be adopted. This has the potential to substantially reduce the scope of remediation, or potentially eliminate the need for remediation altogether.

Additionally, the following is recommended:

- Prepare/update an Asbestos Management Plan (AMP) to outline the management strategy for addressing the potential risks posed by asbestos. This should be prepared by a SafeWork NSW Licensed Asbestos Assessor (LAA);
- Following the HHERA, evaluate the need for any additional data collection, reassess the data gaps outlined in Section 9.3, and (where required) prepare the RAP; and
- The earthworks and any re-use of material is to adequately consider the copper in the soil in relation to waste classification and potential ecological risks, as discussed in Section 9 of this report.

The conclusions and recommendations should be read in conjunction with the limitations presented in the body of this report.

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Abbreviations

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Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
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JK Environments	**JKE**
JK Geotechnics	**JKG**
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Upper Confidence Limit	**UCL**
Unexpected Finds Protocol	**UFP**
Urban Residential and Public Open Space	**URPOS**
Virgin Excavated Natural Material	**VENM**
Volatile Organic Compounds	**VOC**

Units

Kilometres	**km**
Litres	**L**
Metres BGL	**mBGL**
Metres	**m**
Millivolts	**mV**
Millilitres	**ml or mL**
Micrograms per Litre	**µg/L**
Milligrams per Kilogram	**mg/kg**
Milligrams per Litre	**mg/L**
Parts Per Million	**ppm**
Percentage	**%**
Percentage weight for weight	**%w/w**

1 INTRODUCTION

Health Infrastructure ('the client') commissioned JK Environments (JKE) to undertake a Detailed Site Investigation (DSI) for the proposed hospital redevelopment at Temora Hospital, 169-189 Loftus Street, Temora, NSW ('the site'). The purpose of the investigation is to make an assessment of site contamination and inform the preparation of a Remediation Action Plan (RAP). The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2 attached in the appendices.

This report has been prepared to support lodgement of a State Significant Development Application (SSDA) for the proposed hospital redevelopment, with regards to Chapter 4 of State Environmental Planning Policy (Resilience and Hazards) 2021[1].

A geotechnical investigation was undertaken previously to this DSI by JK Geotechnics (JKG). The results of the geotechnical investigation are presented in a separate report (Ref: 35822YFrpt2, dated 26 May 2023)[2]. This report should be read in conjunction with the JKG report.

JKE has previously undertaken a Preliminary Site Investigation (PSI) at the site. A summary of this information has been included in Section 2.

1.1 Proposed Development Details

JKE understand that the proposed development includes the demolition of all existing buildings and structures, and construction of a single-storey hospital building within the northern portion of the site. A loading dock area and staff parking is proposed to the north of the site, with public parking to the south-west and west of the proposed building. The southern extent of the existing driveway is proposed to be retained and incorporated into the new development. The southern portion of the site, and the areas surrounding the new building and carparks, are to be landscaped.

Based on the provided drawings, bulk earthworks (cut/fill) will be required to accommodate the proposed development, with excavation to depths of approximately 2-3m below ground level (BGL) anticipated. Similar extents of filling are also anticipated.

Selected schematic design drawings provided to JKE are attached in the appendices.

1.2 Aims and Objectives

The primary aims of the investigation were to further characterise the site and make an assessment of the soil contamination conditions, and inform the preparation of a RAP. The objectives were to:

- Supplement the PSI data by completing the DSI, including investigation of the soils in accessible areas;
- Assess the potential risks posed by contamination to the receptors identified in the conceptual site model (CSM);
- Provide a preliminary waste classification for off-site disposal of soil;

[1] *State Environmental Planning Policy (Resilience and Hazards) 2021* (NSW) (referred to as SEPP Resilience and Hazards 2021)

[2] JKG, (2023). *Report to Health Infrastructure on Geotechnical Investigation for Proposed Alterations and Additions at Temora Hospital, 169-189 Loftus Street, Temora, NSW.* (referred to as JKG report)

- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

1.3 Scope of Work

The investigation was undertaken generally in accordance with a JKE proposal (Ref: EP58924PR) of 28 June 2023, the agreed consultancy agreement (HI22656) and written acceptance from the client of the variation dated 2 August 2023. The scope of work included the following:

- Review of site information and site history information presented in the PSI;
- Review and update (if required) the CSM;
- Implementation of a sampling, analysis and quality plan (SAQP);
- Interpretation of the analytical results against the adopted Site Assessment Criteria (SAC);
- Data Quality Assessment; and
- Preparation of a report including a Tier 1 risk assessment.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[3], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[4] and SEPP Resilience and Hazards 2021.

A list of reference documents/guidelines is included in the appendices.

[3] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[4] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

2 SITE INFORMATION

2.1 Summary of Previous Investigations

2.1.1 Preliminary Site Investigation (PSI)

JKE previously prepared a PSI for the proposed hospital redevelopment at the site in 2023[5]. The scope of work included a desktop review of historical information, a site walkover inspection, and soil sampling from 12 locations (BH1 to BH8 inclusive, and TP13 to TP16 inclusive) as shown on the figures attached in the appendices. The site history indicated that the site was historically used for residential and agricultural (grazing) purposes until the late 1930's, and has been used for a hospital since.

The PSI identified the following potential contamination sources/areas of environmental concern (AEC):

- Historic filling activities;
- Historic agricultural activities;
- Use of pesticides;
- Hazardous building materials present within existing and/or former structures;
- On-site generator and associated fuel storage;
- Maintenance workshop; and
- On-site incinerator and hospital activities.

The investigation identified fill soils impacted by asbestos and carcinogenic polycyclic aromatic hydrocarbons (PAHs) at concentrations that were above the adopted human health-based SAC. Elevated copper concentrations above the ecological SAC were also identified in the majority of the analysed fill, natural soil and rock samples though were considered to be representative of the regional conditions. Fibre cement fragments (FCF)/asbestos containing material (ACM) was observed in surficial fill in BH4.

JKE concluded that the site could be made suitable for the proposed development via remediation and the following was recommended to better assess the risks associated with potential site contamination:

- A surface walkover and 'emu picking' of all visible FCF/ACM from the site surface should be undertaken and an asbestos clearance certificate obtained from a SafeWork NSW licensed asbestos assessor (LAA);
- Interim management of the site was to occur under an asbestos management plan (AMP), until remediation occurs;
- The earthworks and any re-use of material was to adequately consider the presence of copper in the soil in relation to waste classification and potential ecological risks;
- Undertake a DSI to better assess the risks associated with the potential sources of contamination and inform preparation of a RAP;
- A RAP was to be prepared to address the contamination issues identified at the site; and
- The site was to be managed, remediated and validated in accordance with the RAP and AMP.

[5] JKE, (2023a). *Report to Health Infrastructure on Preliminary (Stage 1) Site Investigation for Proposed Alterations and Additions at Temora Hospital, 169-189 Loftus Street, Temora, NSW.* (Referred to as PSI)

2.1.2 Other Reports Reviewed by JKE

As part of the historical information review for the PSI, JKE also reviewed the following reports:

- Asbestos analysis and risk assessment, prepared by Robson Environmental in 2018[6];
- Hazardous materials survey update, prepared by Environmental & Safety Professionals in 2018[7];
- Asbestos site assessment, prepared by Regional EnviroScience in 2019[8]; and
- A due diligence report, prepared by Northrop Consulting Engineers in 2022[9].

The asbestos analysis and risk assessment identified friable asbestos in the pipe lagging and surface dust within the first-floor ceiling space of the nurses' accommodation. The corrugated roof sheeting and FCF within the ceiling space were considered to be bonded/non-friable ACM.

The hazmat survey update identified bonded/non-friable ACM in several buildings and noted the potential for friable asbestos to be present within the old boilers in several buildings. Synthetic mineral fibres (SMF), lead-based paint systems and ozone depleting substances were also identified within several buildings on the site. The majority of the ACM was considered to be low risk. However, repairs and/or replacement were recommended for damaged floor tiles and table tops in some areas were in order to mitigate the potential risks.

The due diligence report indicated the following materials were removed from the nurses' accommodation building over a period of time:

- Bonded/non-friable ACM corrugated roofing, fibre cement ceiling and wall sheeting from first floor veranda, and fibre cement external sheeting of the ground floor kitchen and storage room;
- Friable asbestos lagged pipes in the ceiling cavity space and from room 10; and
- The vinyl floor tiles from the first-floor landing, however the asbestos containing adhesive layer remained.

[6] Robson Environmental, (2018). *Temora Hospital Nurses Home – Asbestos Analysis and Risk Assessment of 1st floor ceiling space insulation, sheeting and surface dust samples collected on Tuesday 22 May 2018.* (Ref: T-05862)

[7] Environmental & Safety Professionals, (2018). *Report for Murrumbidgee LHD Asset Management. Hazardous Materials Survey Update: Temora Hospital, 169 Temora Young Road Temora NSW.* (Ref: J39256)

[8] Regional EnviroScience Pty Ltd (2019). *Asbestos Site Assessment and Scope of Works for Remediation; Nurses Accommodation, Temora Hospital* (Ref: 22408R01)

[9] Northrop Consulting Engineers, (2022). *Temora Hospital – Site Due Diligence Report* (Ref: SY221522-00-MD01, Revision 2).

2.2 Site Identification

Table 2-1: Site Identification

Current Site Owner (certificate of title):	Health Administration Corporation
Site Address:	169-189 Loftus Street, Temora, NSW
Lot & Deposited Plan:	Lot 2 DP 582392
Current Land Use:	Hospital
Proposed Land Use:	Hospital
Local Government Area:	Temora Shire Council
Current Zoning:	SP2: Infrastructure
Site Area (m^2) (approx.):	31,770
Geographical Location (decimal degrees) (approx.):	Latitude: -34.44276 Longitude: 147.5434
Site Location Plan:	Figure 1
Sample Location Plan:	Figure 2

2.3 Site Description

The site is located in a predominantly residential and rural area of Temora and is bound by Loftus Street to the south and Gloucester Street to the west. The site is located approximately 4km to the south-east of Lake Centenary (a man-made lake across Trigalong Creek). The regional topography is characterised by gently undulating terrain. The site is located towards the crest of a gently undulating slope which grades down towards the south-west at approximately 5°. Parts of the site appear to have been levelled to account for the slope and accommodation the existing development.

A walkover inspection of the site was undertaken by JKE on 2 May 2023 for the PSI. The site has remained generally unchanged since the PSI. A summary of the key observations is provided below:

- At the time of the inspection, the majority of the site was utilised as a hospital with associated accommodation and maintenance areas;
- The buildings were mostly located within the northern and central portions of the site and appeared to generally be in good condition based on a cursory inspection. The buildings included:
    - A three-storey main hospital building of brick and fibre-cement construction;
    - A two-storey nurses' accommodation building of brick and metal construction; and
    - Several single-storey buildings (ancillary services, maintenance, workshop) typically of brick and metal construction;

- An asphaltic concrete (AC) paved driveway provided vehicular access to the site from Loftus Street in the south-west of the site, and extended to the north-east to and around the main hospital building, connecting with another AC paved driveway providing vehicular egress from the site to Gloucester Street in the north-west of the site. Several on-grade carparks and concrete pathways were observed across the site. The pavement conditions varied from moderate to poor condition based on a cursory inspection, with several cracks, potholes and repaired patches observed;
- Fuels, oils and lubricants were typically stored within the maintenance building. The products were stored in appropriate containers;
- An incinerator was located within the boiler room in the north-west of the site;
- Medium to large trees were observed along the site boundaries. Smaller shrubs and trees were located within the courtyard to the north and south of the main building as well as in other formed gardens across the site. The vegetation appeared to be generally healthy based on a cursory inspection; and
- Sensitive environments such as wetlands, ponds, creeks or extensive areas of native vegetation were not observed on site or in the immediate surrounds.

Selected site photographs obtained during the course of the DSI are attached in the appendices. Key site features discussed above are shown on the PSI Figure 2 in Appendix A.

During the site inspection, JKE observed the following land uses in the immediate surrounds:
- North – Low-density residential, the Temora campus of TAFE NSW and residential care facility (Whiddon Group);
- South – Loftus Street with low-density residential beyond;
- East – Utilities infrastructure (transmission tower, substation, pumping station and reservoirs) with vacant agricultural land (possibly grazing) beyond; and
- West – Residential care facility (Whiddon Group) with Gloucester Street beyond.

JKE did not observe any land uses in the immediate surrounds that were identified as potential contamination sources for the site.

2.4 Local Meteorology

Key meteorological data for the weather station at the Temora Airport available on the Bureau of Meteorology (BOM)[10] website has been reviewed and JKE note the following:
- The highest mean rainfall occurs in November, with a total of 58.4mm;
- The lowest mean rainfall occurs in May, with a total of 32.5mm; and
- In the week lead up to the field work, less than 2mm of rainfall was recorded. Approximately 3mm of rainfall was recorded over the course of the DSI.

[10]http://www.bom.gov.au/climate/averages/tables/cw_073151.shtml

2.5 Summary of Geology and Hydrogeology

2.5.1 Regional Geology

Regional geological information presented in the PSI indicated that the site is underlain by Temora Volcanics comprising andesite, trachyandesite, latite and basaltic andesite, though may be obscured by quaternary aged alluvial soils. The alluvial soils are likely present on the lower slopes and toe of the hillside and not within the site boundaries.

The PSI encountered shallow fill soils and residual silty clay overlying andesite bedrock.

2.5.2 Acid Sulfate Soil (ASS) Risk and Planning

The ASS information presented in the PSI indicated that the site is not located within an ASS risk area.

2.5.3 Hydrogeology

Hydrogeological information presented in the PSI indicated that:

- The subsurface conditions at the site consist of relatively low permeability (residual) soils overlying shallow bedrock. The potential for viable groundwater abstraction and use of groundwater under these conditions is considered to be low. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur;
- There nearest registered bore was located 330m to the west of the site and was registered for recreational purposes;
- Considering the local topography and surrounding land features, JKE anticipate groundwater flow towards the north-west.

2.5.4 Water Bodies

The PSI did not identity surface water bodies in the immediate vicinity of the site. The closest surface water body is an unnamed dam approximately 320m to the north-east of the site. This is up-gradient and is not considered to be a potential receptor.

3 SUMMARY OF SITE HISTORY INFORMATION

A time line summary of the historical land uses and activities is presented in the following table. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by JKE during the PSI and over the course of the DSI.

Table 3-1: Summary of Historical Land Uses / Activities

Year(s)	On-site - Potential Land Use / Activities	Off-site - Potential Land Use / Activities
Prior to 1938	Residential and possibly agricultural (grazing).	Residential and agricultural (grazing).
1930 – 1940	Temora Hospital was constructed.	Residential and agricultural (grazing).
1940 - present	Hospital and associated activities.	Residential and agricultural (grazing). 2010s: Vocational education centre (TAFE) was constructed to the north of the site.

4 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and the review of site history information. Reference should also be made to the figures attached in the appendices.

A review of the CSM in relation to source, pathway and receptor (SPR) linkages has been undertaken as part of the Tier 1 risk assessment process, as outlined in Section 9.

4.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/AEC and CoPC are presented in the following table:

Table 4-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site has been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated. The PSI identified filling to depths of approximately 0.2mBGL to 1.1mBGL. The fill contained inclusions of demolition rubble (including metal fragments and FCF/ACM).	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), petroleum hydrocarbons (referred to as total recoverable hydrocarbons – TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), PAHs, organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs) and asbestos.
Maintenance Workshop – The site includes a maintenance workshop. It is possible that leaks/spills and/or releases of oils, solvents and fluids (e.g. turpentine/mineral spirits associated with typical painting activities, rather than chlorinated compounds) may have occurred.	Heavy metals, TRHs and PAHs.
On-site Generator – A back-up generator was observed to the west of the main hospital building. The generator appeared to be self-contained. Minor leaks and/or spills of fuel/oils may have occurred during maintenance and/or use.	TRH, BTEX and PAHs.
Historical agricultural use – Prior to 1938, the site was potentially used for agricultural purposes (likely grazing). This could have resulted in contamination across the site via use of machinery, application of pesticides and building/ demolition of various structures. Irrigation pipes made from asbestos cement may also be associated with this AEC.	Heavy metals, TRH, PAHs, OCPs, PCBs and asbestos. JKE note that OCPs only became commercially available in the 1940s. Prior to this time pesticides were predominantly heavy metal compounds.
Use of pesticides – Pesticides may have been used beneath the buildings and/or around the site.	Heavy metals and OCPs.

Source / AEC	CoPC
Hazardous Building Material – Hazardous building materials may be present as a result of former building and demolition activities. These materials have also been identified by various HAZMAT surveys within the existing buildings/ structures on site.	Asbestos, lead and PCBs.
On-site incinerator and Hospital Waste – The site has been used as a hospital since at least 1940. An incinerator is located within the boiler room. Waste generated from the incinerator could have been disposed of on-site during the earlier years of operations, although there was no evidence identified by JKE confirming this. Disposal of human waste is unlikely to have occurred at the site.	Heavy metals, PAHs, heavy fraction TRH.

4.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 4-2: CSM

Potential mechanism for contamination	The potential mechanisms for contamination are most likely to include 'top-down' impacts and spills. There is a potential for sub-surface releases to have occurred if deep fill (or other buried industrial infrastructure) is present, although this is considered to be the least likely mechanism for contamination.
Affected media	Soil has been identified as the potentially affected medium. The potential for groundwater impacts is considered to be relatively low. However, groundwater would need to be considered in the event significant contamination was identified in soil.
Receptor identification	Human receptors include site occupants/users (including adults and children) in a healthcare setting, construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users (in a residential setting) and groundwater users (recreation/irrigation use). Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas).
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH, naphthalene and BTEX), and primary/secondary contact with groundwater used for irrigation. The potential for exposure would typically be associated with the construction and excavation works, on-going and future use of the site, or groundwater use associated with the use of bore water. Potential exposure pathways for ecological receptors include primary/direct contact and ingestion. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of vapours within enclosed spaces such as buildings.

Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the buildings (from soil contamination); • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; and • Migration of groundwater off-site into areas where groundwater is being utilised as a resource (i.e. for irrigation).
Presence of preferential pathways for contaminant movement	Major services (i.e. on the 'Before You Dig Australia' [BYDA] plans) were not identified that would be expected to act as preferential pathways for contamination migration. However, it is noted that localised services are likely to exist that are not shown on those plans and the details of such services must be reviewed/considered in further detail in the event mobile contamination is identified.

5 SAMPLING, ANALYSIS AND QUALITY PLAN

5.1 Summary of SAQP

JKE prepared a stand-alone SAQP[11] for the DSI which is attached in the appendices. The SAQP can be summarised as follows:

- Data Quality Objectives (DQOs) were developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2;
- Soil samples were obtained from 63 locations (BH/TP101 to BH/TP163 inclusive) generally spread across the site, as shown on the attached Figure 2 and 3;
- A grid-pattern overlay was prepared for the site and locations were judgementally selected from within each grid. The sampling locations were set out using a hand-held GPS (with an accuracy of ±5m);
- Soil samples were obtained using a combination of a track-mounted excavator, a hydraulic powered drilling rig (push tube sampling methods) and hand tools;
- Soil samples were obtained between 6 and 13 September 2023; and
- Soil samples were submitted to NATA accredited laboratories for analysis.

5.2 Deviations to the SAQP

The deviations to the SAQP are outlined below:

- Due to access constraints during the investigation, a few proposed sampling grids were not accessible. However, other areas presumed to be inaccessible were in fact accessible and were used as substitute sampling locations. The sampling met the overall proposed density and the final DSI investigation locations are reflected on the DSI Figure 2 in Appendix A;
- The intention was to select soil samples for analysis for pH, cation exchange capacity (CEC) and clay content based on the results of the initial round of analysis. These parameters are used to adjust ecological SAC based on soil-specific parameters. Due to the length of the field work program and the short holding times for some of these analytes, representative natural soil samples were selected to provided spatial coverage of the site and to establish average values for each parameter. JKE note that the holding time for pH was exceeded and is discussed further in the Data Quality Evaluation presented in the appendices; and
- Total chromium was used as a screening tool analysed as part of the initial analytical suite. Several natural soil samples recorded concentrations above the adopted SAC and were subsequently analysed for hexavalent chromium to allow for direct comparison to the SAC.

Reference should be made to the SAQP attached in the appendices for further information. The above deviations to the SAQP are not likely to impact on the findings of the DSI.

[11] JKE, (2023b). *Report to Health Infrastructure on Sampling, Analysis and Quality Plan (SAQP) for Detailed (Stage 2) Site Investigation (DSI) at Temora Hospital, 169-189 Loftus Street, Temora, NSW*. (Referred to as SAQP)

5.3 Laboratory Details

Samples were analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. Reference should be made to the laboratory reports attached in the appendices for further details.

Table 5-1: Laboratory Details

Samples	Laboratory	Report Reference
All primary samples and field QA/QC samples including (intra-laboratory duplicates, trip blanks, trip spikes and field rinsate samples)	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	333165 and 333165-A
Inter-laboratory duplicates	Envirolab Services Pty Ltd VIC, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	39697

6 SITE ASSESSMENT CRITERIA (SAC)

The SAC were derived from the NEPM 2013 and other guidelines as discussed in the following sub-sections. The guideline values for individual contaminants are presented in the attached report tables and further explanation of the various criteria adopted is provided in the appendices.

6.1 Soil

Soil data were compared to relevant Tier 1 screening criteria in accordance with NEPM (2013) as outlined below.

6.1.1 Human Health

- Health Investigation Levels (HILs) for a 'residential with accessible soils' exposure scenario (HIL-A). HIL-A were selected as a conservative measure due to the extent of landscaping/unsealed areas and the limited information regarding potential development details;
- Health Screening Levels (HSLs) for a 'low-high density residential' exposure scenario (HSL-A & HSL-B). HSLs were calculated based on conservative assumptions including a 'sand' type and a depth interval of 0m to 1m;
- HSLs for direct contact presented in the CRC Care Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[12]; and
- Asbestos was assessed against the HIL-A criteria in soil and as present or absent in FCF. A summary of the asbestos criteria is provided in the table below:

Table 6-1: Details for Asbestos SAC

Guideline	Applicability
Asbestos in Soil	The HSL-A criteria were adopted for the assessment of asbestos in soil. The SAC adopted for asbestos were derived from the NEPM 2013 and are based on the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[13]. The SAC include the following: • No visible asbestos at the surface/in the top 10cm of soil; • <0.01% w/w bonded asbestos containing material (ACM) in soil; and • <0.001% w/w asbestos fines/fibrous asbestos (AF/FA) in soil. Concentrations for bonded ACM concentrations in soil are based on the following equation which is presented in Schedule B1 of NEPM (2013): $\textbf{\% w/w asbestos in soil} = \dfrac{\textbf{\% asbestos content x bonded ACM (kg)}}{\text{Soil volume (L) x soil density (kg/L)}}$ However, we are of the opinion that the actual soil volume in a 10L bucket varies considerably due to the presence of voids, particularly when assessing cohesive soils. Therefore, each bucket sample was weighed using electronic scales and the above equation was adjusted as follows (we note that the units have also converted to grams):

[12] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

[13] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

Guideline	Applicability
	% w/w asbestos in soil = % asbestos content x bonded ACM (g) / Soil weight (g)

6.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for an 'urban residential and public open space' (URPOS) exposure scenario. These have only been applied to the top 2m of soil as outlined in NEPM (2013). The criterion for benzo(a)pyrene has been increased from the value presented in NEPM (2013) based on the Canadian Soil Quality Guidelines[14];
- ESLs were adopted based on the soil type; and
- EILs for selected metals were calculated using site specific soil parameters for pH, CEC and clay content. Representative soil samples were analysed and the arithmetic average of the parameters were calculated (pH of 7.3, CEC of 20cmolc/kg and 39% clay content). These data were used to select the added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013), and published ambient background concentration (ABC) presented in the document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[15]. This method is considered to be adequate for the Tier 1 screening.

6.1.3 Management Limits for Petroleum Hydrocarbons

Management limits for petroleum hydrocarbons as presented in Schedule B1 of NEPM 2013 were considered.

6.1.4 Waste Classification

Data for the waste classification assessment were assessed in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (2014)[16] as outlined in the following table:

Table 6-2: Waste Categories

Category	Description
General Solid Waste (non-putrescible)	• If Specific Contaminant Concentration (SCC) ≤ Contaminant Threshold (CT1) then Toxicity Characteristics Leaching Procedure (TCLP) not needed to classify the soil as general solid waste; and • If TCLP ≤ TCLP1 and SCC ≤ SCC1 then treat as general solid waste.
Restricted Solid Waste (non-putrescible)	• If SCC ≤ CT2 then TCLP not needed to classify the soil as restricted solid waste; and • If TCLP ≤ TCLP2 and SCC ≤ SCC2 then treat as restricted solid waste.
Hazardous Waste	• If SCC > CT2 then TCLP not needed to classify the soil as hazardous waste; and • If TCLP > TCLP2 and/or SCC > SCC2 then treat as hazardous waste.

[14] Canadian Council of Ministers of the Environment, (1999). *Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)* (referred to as the Canadian Soil Quality Guidelines)

[15] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission.

[16] NSW EPA, (2014). *Waste Classification Guidelines, Part 1: Classifying Waste.* (referred to as Waste Classification Guidelines 2014)

Category	Description
Virgin Excavated Natural Material (VENM)	Natural material (such as clay, gravel, sand, soil or rock fines) that meet the following: • That has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial mining or agricultural activities; • That does not contain sulfidic ores or other waste; and • Includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a notice published in the NSW Government Gazette.

7 RESULTS

7.1 Summary of Data (QA/QC) Evaluation

The data evaluation is presented in the appendices. In summary, JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

7.2 Subsurface Conditions

A summary of the subsurface conditions encountered during the investigation is presented in the following table. Reference should be made to the borehole and test pit logs attached in the appendices for further details.

Table 7-1: Summary of Subsurface Conditions

Profile	Description
Pavement	AC pavement was encountered at the surface in BH126, BH155, BH157, BH158 and BH162. The pavement ranged in thickness from approximately 20mm to 50mm.
Fill	With the exception of TP110 and TP123, fill was encountered at the surface or beneath the pavement and extended to depths of approximately 0.05m to 0.9mBGL. TP105, TP109, TP148 and TP156 were terminated in the fill at maximum depths ranging from approximately 0.35m to 0.5mBGL, due to obstructions (i.e. underground services). The fill typically comprised silty clay with inclusions of ash, slag, gravel, cobbles, boulders, volcanic breccia, building rubble (concrete, AC, ceramic, metal, plastic and glass fragments), roots and root fibres. No stained or odorous fill soils were encountered during the DSI. A suspected asbestos cement pipe was encountered in TP153 at a depth of approximately 0.3mBGL. A sample of the pipe was collected (FCF101) and submitted for laboratory analysis.
Natural Soil	Residual silty clay was encountered at the surface inTP110 and TP123, and generally beneath the fill in the majority of the sampling locations. The residual silty clay was observed to include traces of sand and igneous, ironstone, quartz and andesite gravel and cobbles.
Bedrock	Andesite bedrock was encountered beneath the fill in TP124, TP131, TP132, TP152, BH158 and TP159 at depths of approximately 0.1m to 0.5mBGL. Andesite bedrock was encountered beneath the residual silty clay in TP113, TP114, TP123, TP133 to TP141 inclusive, BH155, BH158 and TP160 at depths of approximately 0.4m to 1.2mBGL. The andesite bedrock was typically extremely weathered on first contact.
Groundwater	Groundwater seepage was not encountered in the boreholes and test pits during drilling and test pitting. All boreholes and test pits remained dry on completion of drilling and test pitting and a short time after.

7.3 Field Screening

A summary of the field screening results is presented in the following table:

Table 7-2: Summary of Field Screening

Aspect	Details
PID Screening of Soil Samples for VOCs	PID soil sample headspace readings are presented in attached report tables and the COC documents attached in the appendices. The results ranged from 0.3ppm to 22.5ppm equivalent isobutylene. These results indicate PID detectable VOCs were present in some samples. Samples with elevated PID readings were analysed for TRH and BTEX.
Bulk Screening for Asbestos	The bulk field screening results are summarised in the attached report Table S5. All asbestos results were below the SAC. No ACM was visibly identified within the bulk screened samples.

7.4 Soil Laboratory Results

The soil laboratory results were assessed against the SAC presented in Section 6.1. Individual SAC are shown in the report tables attached in the appendices. A summary of the results is presented below:

7.4.1 Human Health and Environmental (Ecological) Assessment

Table 7-3: Summary of Soil Laboratory Results – Human Health and Environmental (Ecological)

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Arsenic	89	23	0	0	-
Cadmium	89	0.4	0	NSL	-
Chromium (total)	89	140	NSL	0	Total chromium concentrations exceeded the human health SAC for hexavalent chromium (100mg/kg) in six natural soil samples collected from TP123 (0-0.1m), TP130 (0.4-0.5m), TP142 (0.4-0.5m), TP149 (0.7-0.8m), TP153 (0.6-0.7m) and BH155 (0.5-0.8m). JKE note that total chromium was assessed as an initial screening tool.
Chromium (VI)	6	<PQL	0	NSL	The six natural soil samples with total chromium concentrations above the hexavalent chromium SAC were analysed for hexavalent chromium. All hexavalent chromium results were below the laboratory PQL, confirming that the total chromium results were not attributed to appreciable hexavalent chromium concentrations in the samples.

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Copper	89	500	0	16	Copper concentrations exceeded the ecological SAC of 230mg/kg in eight fill soil samples collected from TP112 (0-0.1m), TP113 (0-0.1m), TP125 (0-0.1m), TP131 (0-0.1m), TP138 (0-0.1m), TP143 (0.2-0.3m), TP160 (0-0.1m), and BH162 (0.04-0.2m). Copper concentrations exceeded the ecological SAC in eight natural soil/rock samples from TP113 (0.9-1.0m), TP123 (0-0.1m), TP136 (0.4-0.5m), TP139 (0.2-0.3m), TP140 (0.4-0.5m), TP146 (0.3-0.4m), BH158 (0.3-0.6m) and TP160 (0.2-0.3m). The copper concentration recorded in the field duplicate of the natural soil sample collected from TP110 (0-0.1m) also exceeded the ecological SAC, though the primary and laboratory duplicate results were below the ecological SAC. JKE note that the copper concentration recorded in the field duplicate of TP138 (0-0.1m) was a greater concentration than the primary sample.
Lead	90	470	1	0	The lead concentration recorded in one fill soil sample collected from TP131 (0-0.1m) exceeded the human health SAC.
Mercury	89	0.5	0	NSL	-
Nickel	89	30	0	0	-
Zinc	89	400	0	0	-
Total PAHs	89	200	0	NSL	-
Benzo(a)pyrene	89	15	NSL	0	-
Carcinogenic PAHs (as BaP TEQ)	89	24	9	NSL	Carcinogenic PAH concentrations exceeded the human health SAC in nine fill soil samples collected from TP102 (0-0.1m), TP103, (0-0.1m), TP104 (0-0.1m), TP105 (0-0.1m), TP120 (0-0.1m), TP147 (0.6-0.7m), TP153 (0-0.1m), BH155 (0.2-0.5m) and BH162 (0.04-0.2m).
Naphthalene	89	<PQL	0	NSL	-

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
DDT+DDE+DDD	32	<PQL	0	NSL	-
DDT	32	<PQL	NSL	0	-
Aldrin and dieldrin	32	<PQL	0	NSL	-
Chlordane	32	<PQL	0	NSL	-
Heptachlor	32	<PQL	0	NSL	-
Chlorpyrifos (OPP)	32	<PQL	0	NSL	-
PCBs	32	<PQL	0	NSL	-
TRH F1	89	71	0	0	All primary TRH results were below the SAC. The concentration recorded in the field duplicate of the fill soil sample collected from TTP116 (0-0.05m) exceeded the human health (HSL) SAC.
TRH F2	89	210	2	1	The TRH F2 concentration recorded in two fill soil samples collected from TP116 (0-0.05m) and TP144 (0-0.1m) exceeded the human health (HSL) SAC. The TRH F2 concentration recorded in TP144 (0-0.1m) also exceeded the ecological SAC. The concentration recorded in the field duplicate of the fill soil sample collected from TP116 (0-0.05m) exceeded the ecological SAC.
TRH F3	89	1,100	0	3	TRH F3 concentrations exceeded the ecological SAC in three fill soil samples collected from TP115 (0-0.1m), TP116 (0-0.05m) and TP144 (0-0.1m). JKE note that the TRH F3 concentration recorded in the field duplicate sample collected from TP116 (0-0.05m) was a higher concentration than the primary sample.
TRH F4	89	440	0	0	-
Benzene	89	<PQL	0	0	-

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Toluene	89	<PQL	0	0	-
Ethylbenzene	89	<PQL	0	0	-
Xylenes	89	<PQL	0	0	-
Asbestos (in soil) (%w/w)	66	ACM <0.01 AF/FA <0.001	0	NA	Asbestos was not identified within the 500mL samples submitted for laboratory analysis.
Asbestos in fibre cement	1	Detect	0	NSL	Laboratory analysis confirmed FCF collected from TP153 (0.3m) during test pitting (sample FCF101) contained asbestos. JKE note that the FCF was recovered from pipework encountered within the test pit and was not loose FCF within the soil matrix.

Notes:

N: Total number (primary samples)

NSL: No set limit

NL: Not limiting

7.4.2 TRH Management Limits

The laboratory results were assessed against the criteria presented in Section 6.1.3. All TRH results were below the TRH management limits. The results are presented in the report tables attached in the appendices.

7.4.3 Waste Classification Assessment

The laboratory results were assessed against the criteria presented in Section 6.1.4. The results are presented in the report tables attached in the appendices. A summary of the results is presented in the following table:

Table 7-4: Summary of Soil Laboratory Results Compared to CT and SCC Criteria

Analyte	N	N > CT Criteria	N > SCC Criteria	Comments
Arsenic	89	0	0	-
Cadmium	89	0	0	-
Chromium (Total)	89	NSL	NSL	Total chromium was assessed as an initial screening. Total chromium concentrations exceeded the CT1 criterion for hexavalent chromium in six natural soil samples collected from TP123 (0-0.1m), TP130 (0.4-0.5m), TP142 (0.4-0.5m), TP149 (0.7-0.8m), TP153 (0.6-0.7m) and BH155 (0.5-0.8m). The maximum concentration was 140mg/kg.

Analyte	N	N > CT Criteria	N > SCC Criteria	Comments
Chromium (VI)	6	0	0	The six natural soil samples with total chromium concentrations above the hexavalent chromium CT1 criteria were analysed for hexavalent chromium. All hexavalent chromium results were below the laboratory PQL.
Copper	89	NSL	NSL	-
Lead	90	3	0	Lead concentrations exceeded the CT2 criterion in one fill soil sample collected from TP131 (0-0.1m) and the CT1 criterion in one fill soil sample collected from TP133 (0-0.1m) and one natural soil sample collected from TP139 (0.2-0.3m). The maximum concentration was 470mg/kg.
Mercury	89	0	0	-
Nickel	89	0	0	-
Zinc	89	NSL	NSL	-
TRH (C_6-C_9)	89	0	0	-
TRH (C_{10}-C_{36})	89	0	0	-
BTEX	89	0	0	-
Total PAHs	89	0	0	-
Benzo(a)pyrene	89	16	3	Benzo(a)pyrene concentrations exceeded the SCC1 criterion (10mg/kg) in three fill soil samples collected from TP153 (0-0.1m), BH155 (0.05-0.2m) and BH162 (0.04-0.2m). The concentrations recorded in three fill soil samples collected from TP104 (0-0.1m), TP105 (0-0.1m) and TP147 (0.6-0.7m) exceeded the CT2 criterion (3.2mg/kg). Benzo(a)pyrene concentrations exceeded the CT1 criterion (0.8mg/kg) in 12 fill soils collected from TP101 (0-0.1m), TP102 (0-0.1m), TP103 (0-0.1m), TP118 (0-0.1m), TP120 (0-0.1m), TP134 (0-0.1m), TP142 (0-0.1m), TP149 (0.5-0.6m), TP154 (0-0.1m), BH155 (0.05-0.2m), TP156 (0-0.1m) and TP161 (0-0.1m) and one natural soil sample collected from TP113 (0.9-1.0m). The concentration recorded in the laboratory duplicate of the fill soil sample collected from TP135 (0-0.1m) also exceeded the CT1 criterion, however the concentration recorded in the primary sample was below the CT1 threshold. The maximum concentration was 15mg/kg.

Analyte	N	N > CT Criteria	N > SCC Criteria	Comments
OCPs & OPPs	32	0	0	-
PCBs	32	0	0	-
Asbestos in soil	66	-	-	Asbestos was not detected in the soil samples analysed.
Asbestos in fibre cement	1	-	-	Asbestos was identified in the FCF collected from the pipework encountered at a depth of approximately 0.3m in TP153 (FCF 101).

N: Total number (primary samples)

NSL: No set limit

Table 7-5: Summary of Soil Laboratory Results Compared to TCLP Criteria

Analyte	N	N > TCLP Criteria	Comments
Lead	3	0	The three fill samples with lead concentrations above the CT1/CT2 criterion were analysed for TCLP lead. The TCLP lead results were below the TCLP1 criterion (5mg/L).
Benzo(a)pyrene	19	0	The 19 primary soil samples with benzo(a)pyrene concentrations above the CT1/CT2/SCC1 criteria were analysed for TCLP benzo(a)pyrene. All TCLP benzo(a)pyrene results were below the laboratory PQL.

N: Total number (primary samples)

8 PRELIMINARY WASTE CLASSIFICATION ASSESSMENT

8.1 Preliminary Waste Classification of Fill

Based on the available results (including the PSI and DSI), and at the time of reporting, the fill material is assigned the following preliminary classifications:

- Fill in the vicinity of TP153 is assigned a preliminary classification of **Restricted Solid Waste containing Special Waste (asbestos)**;
- Fill in the vicinity of BH15 and BH162 is assigned a preliminary classification of **Restricted Solid Waste**;
- Fill in the vicinity of BH4 is assigned a preliminary classification of **General Solid Waste (non-putrescible) containing Special Waste (asbestos)**; and
- Fill in other areas tested as part of this investigation is assigned a preliminary classification of **General Solid Waste (non-putrescible)**.

JKE note that the restricted solid waste classification was due to elevated PAH concentrations. Asphalt fragments were generally observed in these areas which may have contributed to the elevated PAH concentrations in the soil samples. Further assessment including additional testing is required to confirm the final waste classification prior to off-site disposal. The anticipated waste quantities should also be confirmed at that time and documented in the report.

We note that asphalt waste is pre-classified as General Solid Waste (non-putrescible) in accordance with Part 1 of the Waste Classification Guidelines 2014. If there is a to be a surplus of soils requiring off-site disposal, and if further assessment confirms that the PAHs in the soils are attributed to asphalt, then it would be reasonable to revise the waste classification for the soil to General Solid Waste (non-putrescible). Appropriate supporting documentation will be required in this scenario.

8.2 Preliminary Classification of Natural Soil and Bedrock

Based on the available results (including the PSI and DSI), and at the time of reporting, the natural silty clay and sandy silty clay soil is assigned a preliminary classification of **General Solid Waste (non-putrescible)** due to the elevated PAH concentrations recorded in several samples. JKE note that low levels of PAHs may be naturally occurring, though there is uncertainty as to the source of the elevated PAH concentrations at each location. It is also acknowledged that some samples were collected from near the interface with overlying fill, and that deeper natural soils may record negligible PAH concentrations.

Based on the available results, and at the time of reporting, JKE is of the opinion that the andesite bedrock within the site will likely meet the definition of **VENM** for off-site disposal or re-use purposes. JKE note that naturally elevated copper concentrations were recorded within the bedrock (up to 470mg/kg) which may pose risk to ecological receptors depending on the proposed re-use scenario. Though the bedrock will likely meet the definition of VENM, an assessment will also be required to confirm the bedrock is suitable from a contamination risk perspective in the context of the proposed re-use.

JKE note that low concentrations of PAHs were detected within the extremely weathered andesite bedrock in TP136. TP136 encountered extremely weathered andesite bedrock directly beneath the overlying fill soil profile and the concentrations of PAHs were consistent between the overlying fill sample and the andesite bedrock sample. Considering multiple lines of evidence, including the results of the other extremely weathered bedrock samples analysed, JKE is of the opinion that the PAHs detected were unlikely to be representative of the bedrock but rather a result of minor cross-contamination arising from the difficulties in sampling near the interface of fill and natural weathered rock profiles. Further assessment is required to confirm this following removal of the overlying fill soils.

Further assessment is required to confirm these classifications prior to off-site disposal of the waste. The anticipated waste quantities should also be confirmed at that time and documented in the report.

9 DISCUSSION

9.1 Tier 1 Risk Assessment and Review of CSM

For a contaminant to represent a risk to a receptor, the following three conditions must be present:

1. Source – The presence of a contaminant;
2. Pathway – A mechanism or action by which a receptor can become exposed to the contaminant; and
3. Receptor – The human or ecological entity which may be adversely impacted following exposure to contamination.

If one of the above components is missing, the potential for adverse risks is relatively low.

9.1.1 Asbestos

Asbestos, in the form of bonded (non-friable) FCF/ACM was identified as a buried pipe in TP153 at a depth of approximately 0.3mBGL. Laboratory analysis of the FCF confirmed the presence of asbestos. TP153 was located in an island garden within the carpark in the north-west of the site, as shown on Figure 3. The source of the asbestos was considered to be the asbestos cement pipe service encountered in the test pit.

The FCF was identified on contact with the pipe and no other FCF were identified during the bulk field screening or laboratory analysis of the samples collected for the DSI. The pipe appeared to be in good condition. On this basis, JKE consider the FCF was disturbed from the exterior of the pipework during test pitting, rather than being loose within the fill soil matrix. Given the FCF was encountered at depth and was associated with a service pipe (it was unknown whether the service was in-use of redundant), there is considered to be low potential for a complete SPR linkage to be realised. A complete SPR linkage could be realised during redevelopment and/or works associated with the service pipe and should be managed in accordance with an AMP. The presence of this pipe should be recorded in the asbestos register. JKE note that the FCF was collected from the exterior of the pipework and the pipework was not pierced/breached during the DSI.

JKE note that asbestos, in the form of bonded (non-friable) FCF/ACM was encountered in surficial fill soils in BH4 during the PSI, as shown on the PSI figures attached in the appendices. Due to the surficial nature of this find, a potentially complete SPR linkage was flagged which triggered a requirement for remediation. Interim measures were also recommended to be undertaken. It is noted that on completion of the PSI and the DSI, a walkover inspection of the surface of all sampling locations and their immediate vicinity was undertaken by JKE and no visible FCF/ACM remained at the surface on completion of reinstating the test pit and borehole locations.

9.1.2 Heavy Metals

Lead was identified in surficial (0-100mm) fill soil in TP131 at a concentration above the human health SAC. TP131 was located in the east of the site, to the east of the main hospital building and driveway, as shown on Figure 3 attached in the appendices. The source of the lead was considered likely to be associated with impacted fill imported to the site, although there is a potential that the lead could be associated with minor impacts from hazardous building materials (i.e. lead-based paint) given the proximity of TP131 to BH4 where FCF was identified at the ground surface. The results of leachate analysis indicated low potential for the lead to migrate (leach) into the underlying soils and groundwater. On this basis, the impact was considered likely to be contained to the fill soils.

TP131 was located in an unsealed portion of the site and the vicinity of TP131 is readily accessible to site occupants/workers and visitors. On this basis, a complete SPR linkage could be realised and the lead in surficial fill soil is considered to pose a potential risk to human health.

Copper was identified in fill and natural soil samples in several locations at concentrations above the ecological SAC. The SAC exceedances are shown on Figure 3 attached in the appendices. The copper concentrations detected within the fill and natural soil samples were generally consistent with the findings of the PSI.

Considering multiple lines of evidence, JKE is of the opinion that the copper concentrations recorded within the soil and rock samples are representative of regional conditions rather than indicative of potential soil contamination resulting from a site-specific activity. Further, the existing vegetation appeared healthy (based on a cursory inspection) with no obvious indications of stress/die-back. On this basis, JKE is of the opinion it is unlikely for unacceptable, copper-related risk to exist for ecological receptors at the site, and remediation to address copper in soil is not required.

Though the elevated copper concentrations are considered unlikely to pose an unacceptable risk to ecological receptors in the context of the proposed development, consideration should be given during the development planning of any required cut/fill to avoid placement of deeper soils and rock near the surface. Within new landscaping areas, the use of appropriate growing mediums (i.e. approved topsoil) and/or copper-tolerant plantings should be considered. Further advice in this regard should be obtained from the appointed project arborist.

All remaining heavy metal concentrations were below the human health and ecological SAC.

9.1.3 Hydrocarbons

Carcinogenic PAHs were identified in the shallow fill soils in TP102 to TP105 inclusive, TP120, TP153 and BH162, and within deeper fill soils in TP147 and BH155 at concentrations above the human health SAC (see the DSI Figure 3 in the appendices). JKE note that the PSI identified elevated carcinogenic PAH concentrations in fill soils in BH3, BH8 and TP15, as shown on the PSI Figure 4 attached in the appendices. The source of the PAHs is considered most likely to be asphalt/bitumen fragments and/or traces of ash within the fill matrix, and the exceedances of the SAC were in the western and south-western areas of the site.

There is a potential for a complete SPR linkage to PAHs to occur. However, we consider that risks are likely to be low on the basis that a number of the SAC exceedances occurred in soils covered by pavement or at depth. A number of the SAC exceedances were also only marginally over the PQL. We also note that Schedule B1 of NEPM 2023 indicates that where benzo(a)pyrene (the main attribute of carcinogenic PAHs) occurs in bitumen fragments, it is relatively immobile and does not represent a significant health risk. Given that conservative SAC were adopted in the absence of any specific proposed development details, further risk assessment is warranted before confirming the need for remediation and designing the remedial strategy.

The results of leachate analysis indicated low potential for the PAHs to migrate (leach) into the underlying soils and groundwater.

TRH F1 and TRH F2 concentrations were identified in shallow fill soil samples in TP116 and TP144 (TRH F2 only) at concentrations above the human health SAC. TRH F2 and TRH F3 concentrations were also identified in shallow fill soil samples in TP115 (TRH F3), TP116 and TP144 above the ecological SAC. The SAC exceedances are shown on Figure 3 attached in the appendices. The source of the TRH was considered likely to be associated with impacted fill imported to the site, and to a lesser extent, leaks/spills from maintenance equipment. JKE note that the concentrations may also be associated with organic polar compounds within the soil matrix which can cause interference during the laboratory analysis, however additional testing would be required to confirm this. The results of deeper fill and natural soil samples collected from the vicinity of these test pits indicated that the impacts were unlikely to have migrated (leached) to the underlying soils. On this basis, the impacts were considered likely to be confined to the fill soils.

TP115, TP116 and TP144 were located within unsealed portions of the site. The test pit locations and their immediate vicinity were grass and/or mulch covered and the vegetation generally appeared healthy with no obvious indicators of stress. There were no buildings in this location currently and it is unclear whether buildings will be constructed at these locations as part of the proposed development. Therefore, we consider that there is currently no unacceptable vapour intrusion risk and the potential for risks to eventuate in future via a complete SPR linkage requires further assessment when the proposed development details are known.

All BTEX concentrations were below the human health and ecological SAC.

9.1.4 Other CoPC in Soil

All remaining CoPC in soil were below the relevant SAC.

9.2 Decision Statements

The decision statements are addressed below:

Are any results above the SAC?

Yes, as discussed in Section 7.4.

Do potential risks associated with contamination exist, and if so, what are they?

Yes, as discussed in Section 9.1.

Is remediation required?

The DSI has identified triggers for remediation in the context of the DQOs specified in the SAQP, as exceedances of the SAC were encountered. However, it is noted that conservative SAC were adopted for the DSI and therefore further assessment of risk should occur once the proposed development details are better understood. The risk assessment should occur to confirm the need for remediation and guide the preparation of the RAP.

Is the site characterisation sufficient to provide adequate confidence in the above decisions?

Yes.

Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

JKE is of the opinion that the site can be made suitable subject to further risk assessment and (where required) preparation and implementation of a RAP. An AMP should be prepared for the construction/remediation works.

9.3 Data Gaps

The data gaps primarily relate to the soil contaminant conditions beneath the existing building footprints. JKE is of the opinion that the soil contaminant conditions would likely be similar to the available soil data. However, additional asbestos impacts may be encountered and there is a potential that pesticide applications occurred beneath the buildings.

Nevertheless, additional sampling is recommended beneath the building footprints once access is available (i.e. following demolition). Hence, provisions for this are to be made in the RAP and/or considered further when the proposed development details are known.

Although this is not considered to be a 'data gap', we acknowledge that the sampling plan was non-probabilistic due to site access constraints. Statistical assessment of the DSI dataset, or potentially the integration of a statistical-based data gap investigation or validation methodology, is considered likely to result in beneficial outcomes in terms of reducing the need for or the extent of remediation (particularly in the event that the site-specific human health and ecological risk assessment derives less conservative SAC which can be adopted).

10 CONCLUSIONS AND RECOMMENDATIONS

The investigation included a review of historical information and soil sampling from 63 additional locations. The site history indicated that the site was historically used for residential and agricultural (grazing) purposes until the late 1930’s, and has been used for a hospital since.

The DSI identified fill soils impacted by lead, TRHs and carcinogenic PAHs at concentrations that were above the nominated SAC. A subsurface asbestos pipe was identified at TP153 during the DSI and the PSI identified a fragment of bonded ACM in the surficial soil in BH4.

Based on the findings of the investigation, JKE is of the opinion that the site can be made suitable for the proposed development described in Section 1.1 via remediation. We recommend that a site-specific human health and ecological risk assessment (HHERA) be undertaken by a specialist consultant. The SAC adopted for the PSI and DSI are considered to be relatively conservative for a hospital land use scenario, and further consideration of the specific proposed development details may enable site specific criteria to be developed or alternative Tier 1 criteria to be adopted. This has the potential to substantially reduce the scope of remediation, or potentially eliminate the need for remediation altogether.

Additionally, the following is recommended:

- Prepare/update an AMP to outline the management strategy for addressing the potential risks posed by asbestos. This should be prepared by a LAA;
- Following the HHERA, evaluate the need for any additional data collection, reassess the data gaps outlined in Section 9.3, and (where required) prepare the RAP; and
- The earthworks and any re-use of material is to adequately consider the copper in the soil in relation to waste classification and potential ecological risks, as discussed in Section 9 of this report.

JKE consider that the report objectives outlined in Section 1.2 have been addressed.

11 LIMITATIONS

The report limitations are outlined below:

- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or land use. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors

This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions

Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data

Site investigations identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an investigation indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Investigation Limitations

Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals
Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Investigation Report
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the investigation. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the investigation. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete investigation should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely
Because an environmental site investigation is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site investigation, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.

Appendix A: Report Figures

DSI Report Figures

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

This plan should be read in conjunction with the Environmental report.

Title:	**SITE LOCATION PLAN**
Location:	169-189 LOFTUS STREET, TEMORA, NSW
Project No: E35822PR	Figure No: 1

JKEnvironments

PLOT DATE: 9/05/2023 2:57:21 PM DWG FILE: K:\5C EIS JOBS\35000'S\E35822PR TEMORA\CAD\E35822PR.DWG

LEGEND

(red dashed line)	APPROXIMATE SITE BOUNDARY
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (PSI, 2023)
TP(Fill Depth)	TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m) (PSI, 2023)
BH154	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, DSI)
TP101	TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, DSI)
	INACCESSIBLE AREA

0 10 20 30 40 50
SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SAMPLE LOCATION PLAN**

Location: 169-189 LOFTUS STREET, TEMORA, NSW

Project No: E35822PR

Figure No: 2

JKEnvironments

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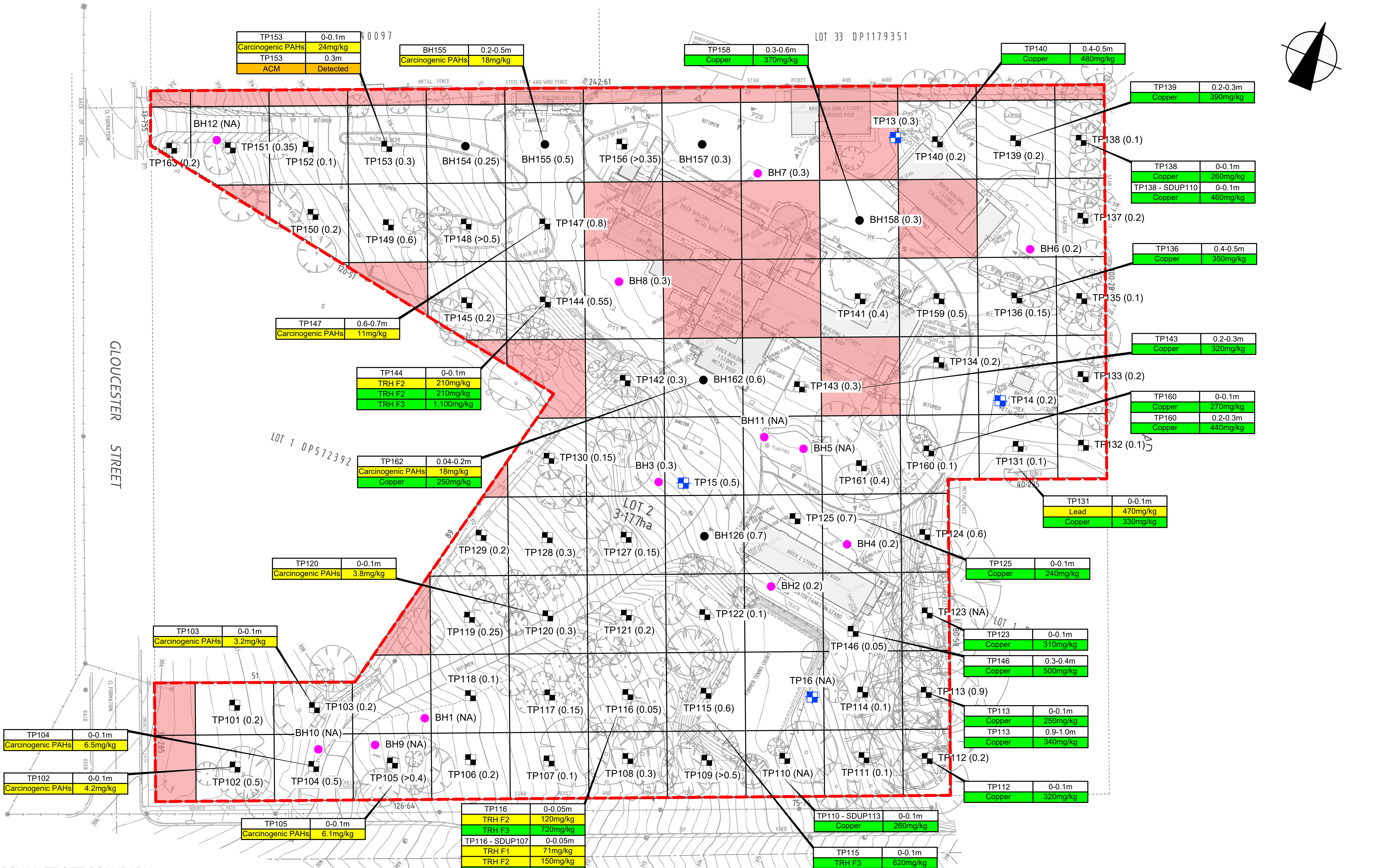


LEGEND

(red dashed line)	APPROXIMATE SITE BOUNDARY
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (PSI, 2023)
TP(Fill Depth)	TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m) (PSI, 2023)
BH154	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, DSI)
TP101	TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, DSI)
(pink)	INACCESSIBLE AREA
SAMPLE ID / DEPTH (metres) / CHEMICAL / CONCENTRATION	SOIL/SURFACE SAMPLE EXCEEDANCE
(yellow)	SOIL/SURFACE CONTAMINATION ABOVE SAC FOR HUMAN HEALTH RISK
(green)	SOIL/SURFACE CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK

0 10 20 30 40 50
SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **DSI SAC EXCEEDANCE PLAN**

Location: 169-189 LOFTUS STREET, TEMORA, NSW

Project No: E35822PR

Figure No: 3

JKEnvironments

PLOT DATE: 19/10/2023 1:47:04 PM DWG FILE: K:\5C EIS JOBS\35000'S\E35822PR TEMORA\CAD\E35822PR.DWG

PSI Report Figures

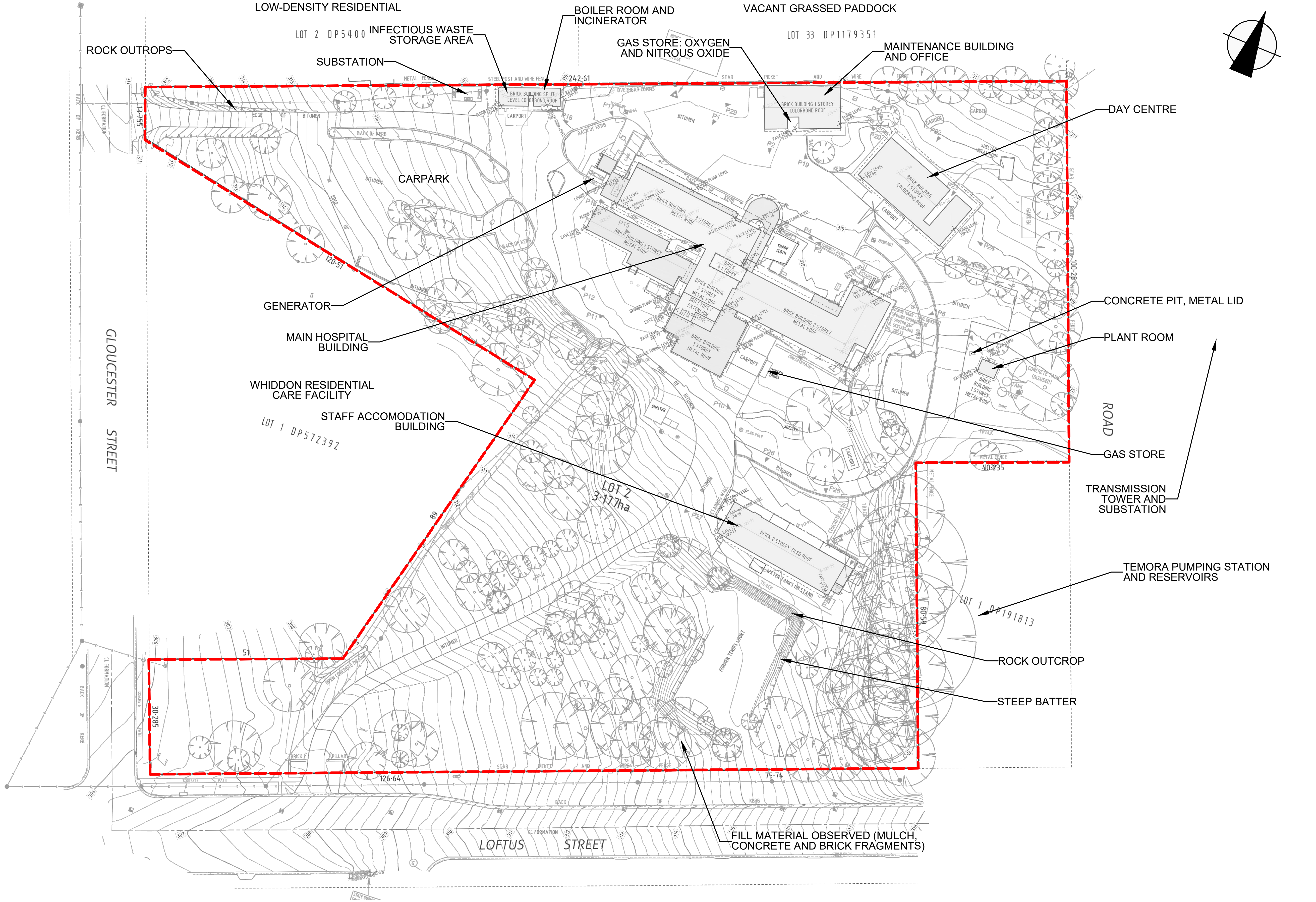
AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

This plan should be read in conjunction with the Environmental report.

Title:	SITE LOCATION PLAN
Location:	169-189 LOFTUS STREET, TEMORA, NSW
Project No: E35822PR	Figure No: 1

JKEnvironments

PLOT DATE: 9/05/2023 2:57:21 PM DWG FILE: K:\5C EIS JOBS\35000'S\E35822PR TEMORA\CAD\E35822PR.DWG



LEGEND

APPROXIMATE SITE BOUNDARY

SCALE 1:1000 @A3 METRES (0, 10, 20, 30, 40, 50)

This plan should be read in conjunction with the Environmental report.

Title:	SITE FEATURES PLAN
Location:	169-189 LOFTUS STREET, TEMORA, NSW
Project No:	E35822PR
Figure No:	2

JKEnvironments

PLOT DATE: 8/06/2023 12:18:08 PM DWG FILE: K:\5C EIS JOBS\35000'S\E35822PR TEMORA\CAD\E35822PR.DWG

LEGEND

(red dashed line)	APPROXIMATE SITE BOUNDARY
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
TP(Fill Depth)	TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m)

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title:	**PSI SAMPLE LOCATION PLAN**
Location:	169-189 LOFTUS STREET, TEMORA, NSW
Project No:	E35822PR
Figure No:	3

JKEnvironments

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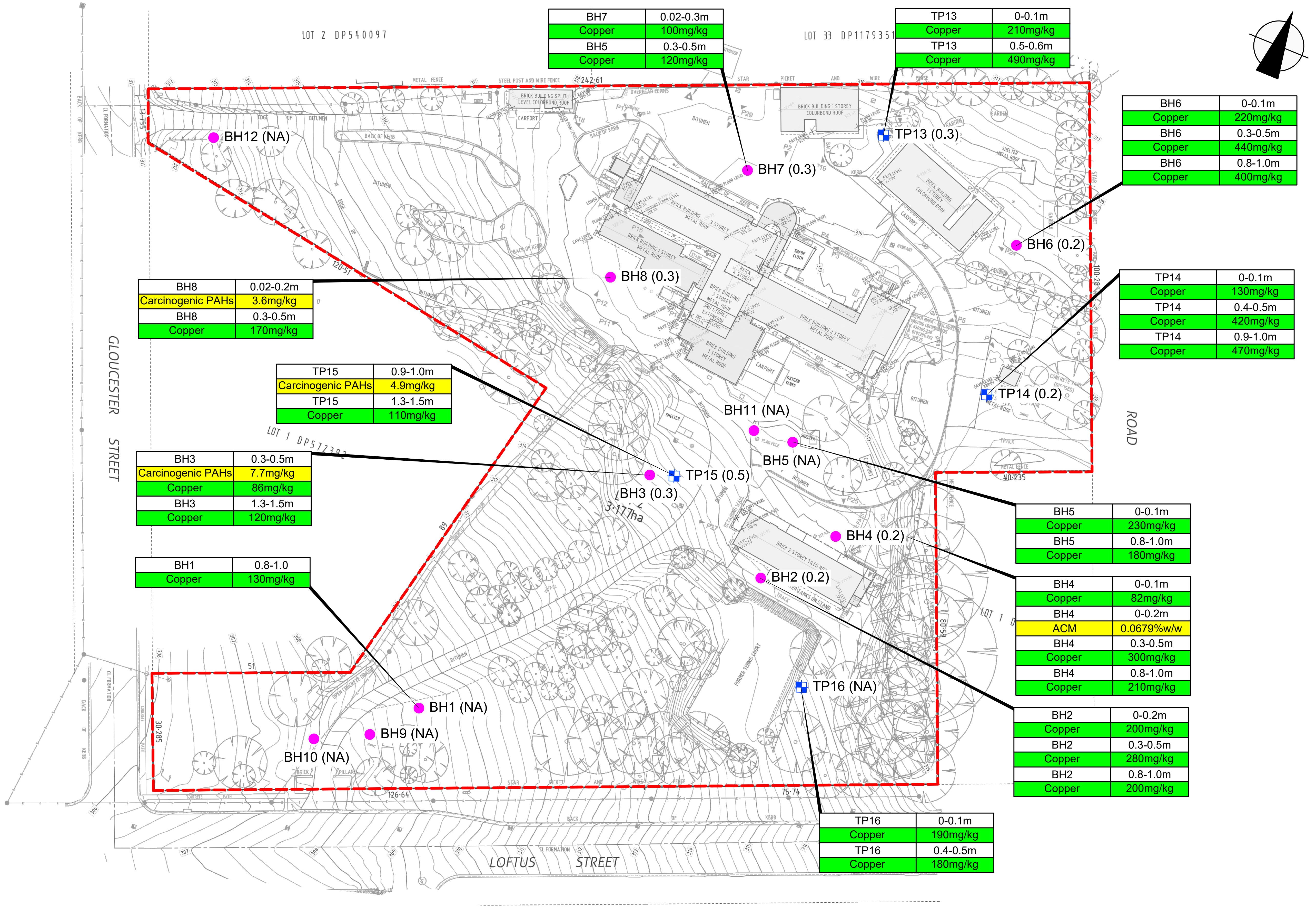


BH7	0.02-0.3m
Copper	100mg/kg
BH5	0.3-0.5m
Copper	120mg/kg

TP13	0-0.1m
Copper	210mg/kg
TP13	0.5-0.6m
Copper	490mg/kg

BH6	0-0.1m
Copper	220mg/kg
BH6	0.3-0.5m
Copper	440mg/kg
BH6	0.8-1.0m
Copper	400mg/kg

BH8	0.02-0.2m
Carcinogenic PAHs	3.6mg/kg
BH8	0.3-0.5m
Copper	170mg/kg

TP14	0-0.1m
Copper	130mg/kg
TP14	0.4-0.5m
Copper	420mg/kg
TP14	0.9-1.0m
Copper	470mg/kg

TP15	0.9-1.0m
Carcinogenic PAHs	4.9mg/kg
TP15	1.3-1.5m
Copper	110mg/kg

BH3	0.3-0.5m
Carcinogenic PAHs	7.7mg/kg
Copper	86mg/kg
BH3	1.3-1.5m
Copper	120mg/kg

BH5	0-0.1m
Copper	230mg/kg
BH5	0.8-1.0m
Copper	180mg/kg

BH1	0.8-1.0
Copper	130mg/kg

BH4	0-0.1m
Copper	82mg/kg
BH4	0-0.2m
ACM	0.0679%w/w
BH4	0.3-0.5m
Copper	300mg/kg
BH4	0.8-1.0m
Copper	210mg/kg

BH2	0-0.2m
Copper	200mg/kg
BH2	0.3-0.5m
Copper	280mg/kg
BH2	0.8-1.0m
Copper	200mg/kg

TP16	0-0.1m
Copper	190mg/kg
TP16	0.4-0.5m
Copper	180mg/kg

LEGEND

APPROXIMATE SITE BOUNDARY

BH(Fill Depth) BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)

BH/MW(Fill Depth) BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)

SAMPLE ID	DEPTH (metres)
CHEMICAL	CONCENTRATION

SOIL/SURFACE SAMPLE EXCEEDANCE

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR HUMAN HEALTH RISK

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK

0 10 20 30 40 50
SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **PSI SAC EXCEEDANCE PLAN**

Location: 169-189 LOFTUS STREET, TEMORA, NSW

Project No: E35822PR

Figure No: 4

JKEnvironments

PLOT DATE: 8/06/2023 12:18:21 PM DWG FILE: K:\5C EIS JOBS\35000'S\E35822PR TEMORA\CAD\E35822PR.DWG

Appendix B: Site Information

Selected Site Photographs

Photograph 1: TP108

Photograph 2: TP113

Photograph 3: TP115

Photograph 4: TP143

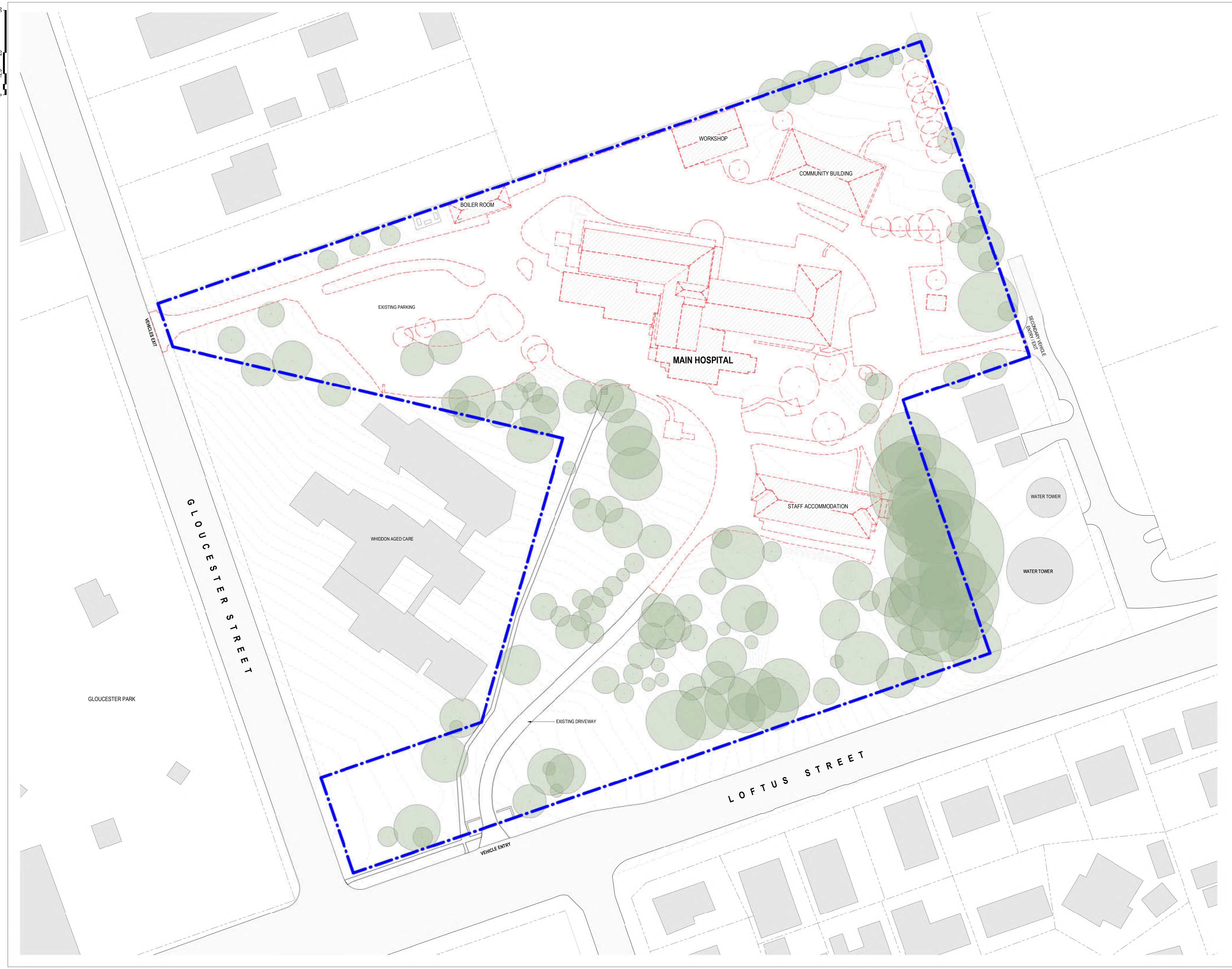
Photograph 5: TP149

Photograph 6: Asbestos cement pipe in TP153

Photograph 7: Asphalt fragment in TP154

Photograph 8: Metal fragment in TP156

Selected Schematic Design Drawings



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HDR Pty. Limited ABN 76 158 075 220 trading as HDR

NOMINATED ARCHITECT: Cate Cowlishaw 10786 (NSW)

NORTH POINT

KEY PLAN

REV	DESCRIPTION OF CHANGE	DATE	CHECKED	ISSUED
0	PRELIMINARY	13/10/23	HDR	
1	PRELIMINARY	16/10/23	HDR	
2	FOR INFORMATION	21/12/23	HDR	
3	PRELIMINARY	31/01/24	HDR	

DRAWING LEGEND

- SITE BOUNDARY
- LOT BOUNDARY
- EXISTING BUILDING/ROOF/DRIVEWAYS TO BE DEMOLISHED
- EXISTING TREES TO BE REMOVED
- EXISTING SURROUNDING BUILDINGS
- EXISTING ROADS
- EXISTING TREES TO BE RETAINED

CLIENT

NSW GOVERNMENT | Health Infrastructure

PROJECT

TEMORA HOSPITAL REDEVELOPMENT TEMORA NSW 2666

DRAWING TITLE

SITE PLAN - DEMOLITION

SCALE
1 : 500 @ A1

PROJECT NUMBER
130908

DRAWING NUMBER
130908-HDR-AR-DWG-1201

ISSUE
3

PROJECT STATUS
PRELIMINARY

31/01/2024 3:40:00 PM

Autodesk Docs://10355504_Temora Hosp Redevelopment_2022/HDR-TEM-AR-BASEBUILD.rvt

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NOMINATED ARCHITECT: Cate Cowlishaw 10786 (NSW)

NORTH POINT

KEY PLAN

TREE PROTECTION ZONE FOR HIGHER RETENTION VALUE TREES

REV	DESCRIPTION OF CHANGE	DATE	CHECKED	ISSUED
0	PRELIMINARY	13/10/23	HDR	
1	PRELIMINARY	16/10/23	HDR	
2	FOR INFORMATION	14/12/23	HDR	
3	FOR INFORMATION	21/12/23	HDR	
4	FOR INFORMATION	10/01/24	HDR	
5	PRELIMINARY	31/01/24	HDR	

DRAWING LEGEND

- SITE BOUNDARY
- LOT BOUNDARY
- PROPOSED HOSPITAL BUILDING - ROOF
- PROPOSED CARPARK / DRIVEWAYS / WALKWAYS
- EXISTING CARPARK / DRIVEWAYS / WALKWAYS
- TREES RETAINED
- PROPOSED TREES
- PROPOSED LANDSCAPE AREAS
- TREE PROTECTION ZONE FOR HIGHER RETENTION VALUE TREES

CLIENT

NSW GOVERNMENT | Health Infrastructure

PROJECT

TEMORA HOSPITAL REDEVELOPMENT TEMORA NSW 2666

DRAWING TITLE

SITE PLAN - PROPOSED

SCALE
1 : 500 @ A1

PROJECT NUMBER
130908

DRAWING NUMBER
130908-HDR-AR-DWG-1301

ISSUE
5

PROJECT STATUS
PRELIMINARY

31/01/2024 3:41:03 PM

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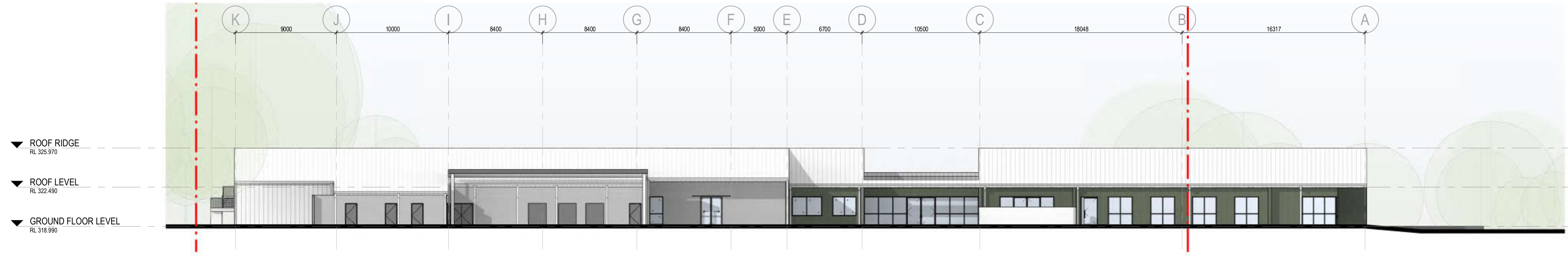
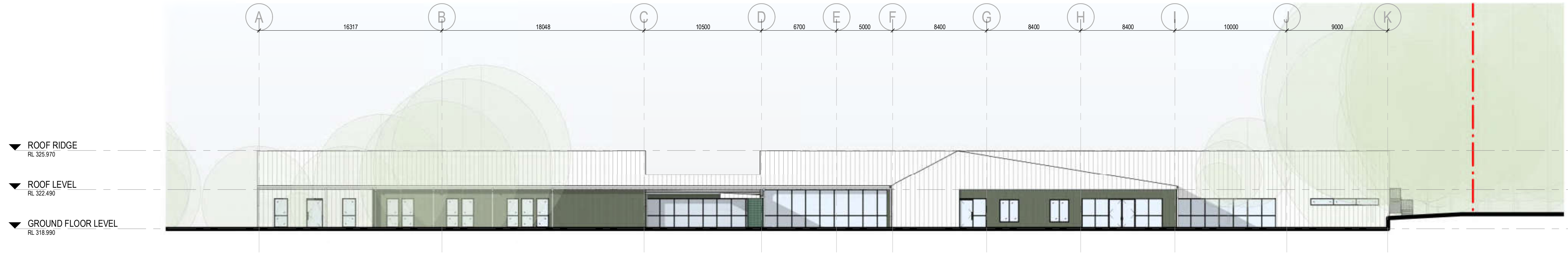


1 **ELEVATION NORTH (SD)**
1 : 200



2 **ELEVATION SOUTH (SD)**
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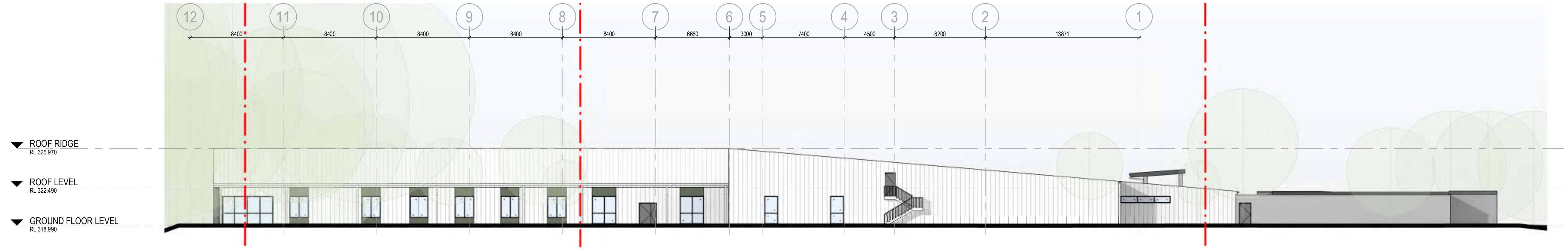

3 **ELEVATION EAST (SD)**
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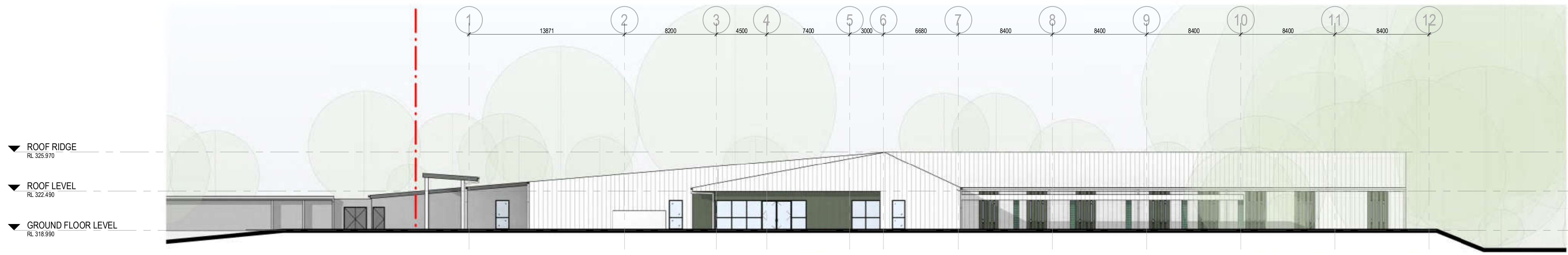

4 **ELEVATION WEST (SD)**
1 : 200

HDR

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NOMINATED ARCHITECT: Cate Cowlishaw 10786 (NSW)

ALL INFORMATION ILLUSTRATED ON THIS DOCUMENT IS TO BE CHECKED AND VERIFIED ON SITE. IN THE EVENT OF DISCREPANCIES REFER TO ARCHITECT PRIOR TO COMMENCEMENT OF THE WORK. DO NOT SCALE DRAWINGS MANUALLY OR ELECTRONICALLY.

KEY PLAN

REV	DESCRIPTION OF CHANGE	DATE	CHECKED	ISSUED
0	FOR INFORMATION	18/12/23	HDR	
1	FOR INFORMATION	21/12/23	HDR	
2	FOR INFORMATION	10/01/24	HDR	
3	PRELIMINARY	31/01/24	HDR	

DRAWING LEGEND
- SITE BOUNDARY
- WHITE METAL STANDING SEAM
- GREEN FIBRE CEMENT PANELS
- GLAZING
- GLAZED BRICK / TILE

CLIENT
NSW GOVERNMENT | Health Infrastructure

PROJECT
TEMORA HOSPITAL REDEVELOPMENT TEMORA NSW 2666

DRAWING TITLE
ELEVATIONS

SCALE
As indicated @ A1

PROJECT NUMBER
130908

DRAWING NUMBER
130908-HDR-AR-DWG-3010

ISSUE
3

PROJECT STATUS
PRELIMINARY

31/01/2024 3:48:47 PM

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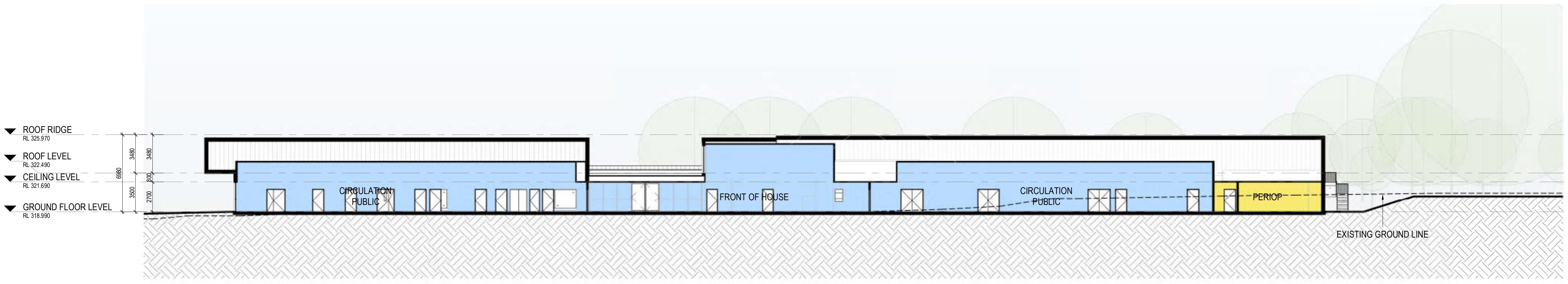

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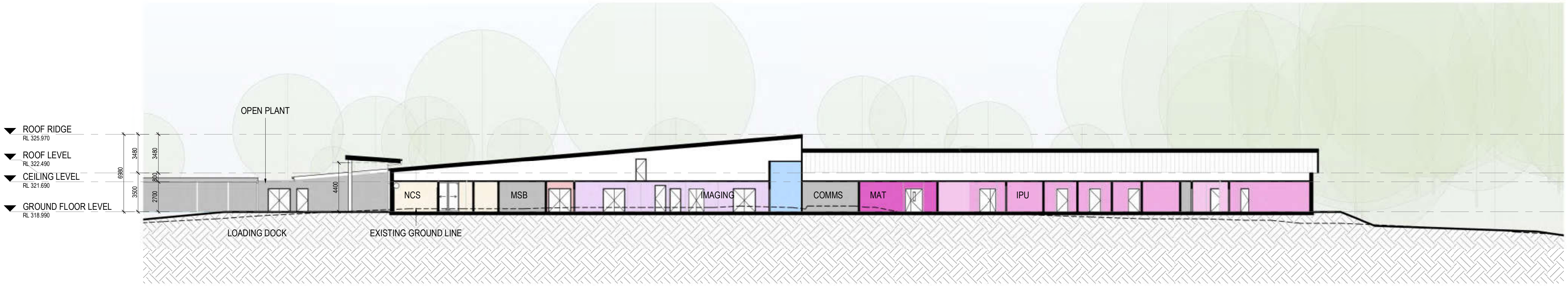

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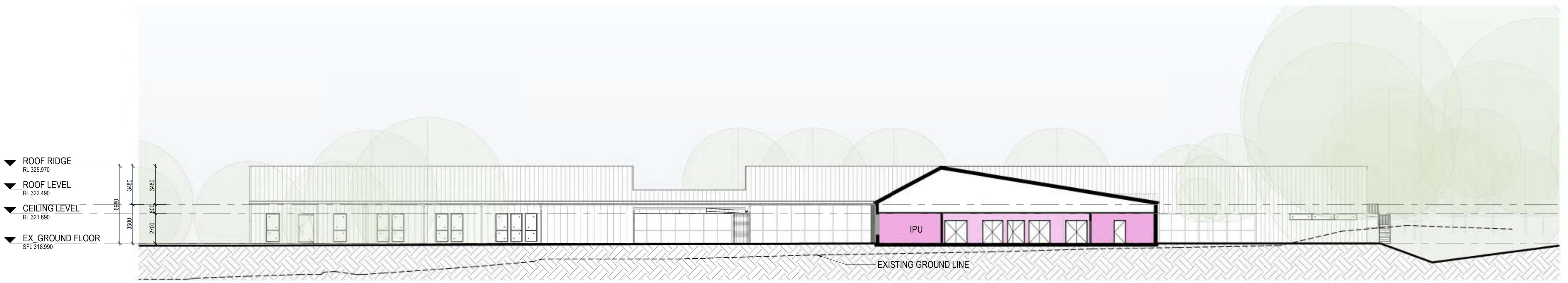

C **SECTION C-C**
1 : 200

HDR

Level 24, 25 Martin Place, Sydney NSW, 2000, Australia
+61 2 9956 2666 | hdrinc.com
HDR Pty. Limited ABN 76 158 075 220 trading as HDR

NOMINATED ARCHITECT: Cate Cowlishaw 10786 (NSW)

KEY PLAN

REV	DESCRIPTION OF CHANGE	DATE	CHECKED	ISSUED
0	PRELIMINARY	13/10/23	HDR	
1	PRELIMINARY	16/10/23	HDR	
2	FOR INFORMATION	14/12/23	HDR	
3	FOR INFORMATION	21/12/23	HDR	
4	PRELIMINARY	31/01/24	HDR	

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NSW GOVERNMENT Health Infrastructure

PROJECT
TEMORA HOSPITAL REDEVELOPMENT TEMORA NSW 2666

DRAWING TITLE
GENERAL ARRANGEMENT SECTIONS - 1

SCALE
1 : 200 @ A1

PROJECT NUMBER
130908

DRAWING NUMBER
130908-HDR-AR-DWG-3111

ISSUE
4

PROJECT STATUS
PRELIMINARY

31/01/2024 3:49:25 PM

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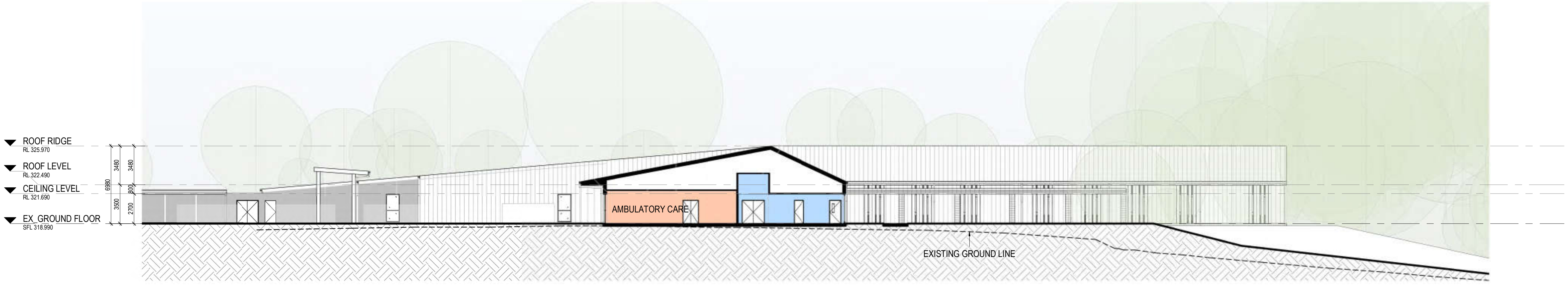

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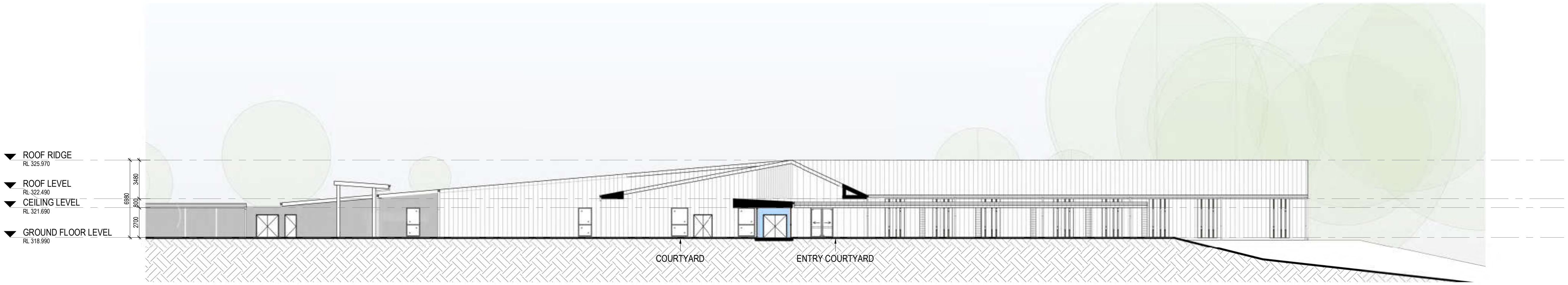
1 : 200



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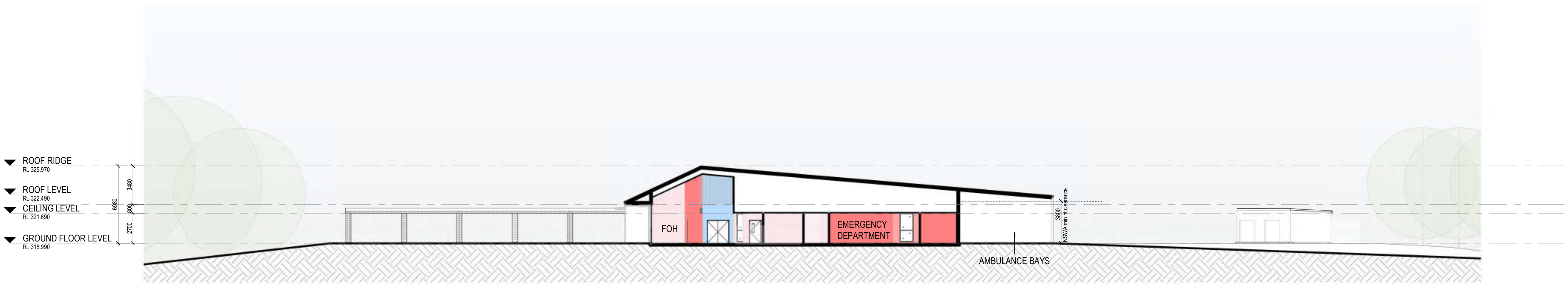

F **SECTION F-F**
1 : 200

HDR

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NOMINATED ARCHITECT: Cate Cowlishaw 10786 (NSW)

KEY PLAN

REV	DESCRIPTION OF CHANGE	DATE	CHECKED	ISSUED
0	PRELIMINARY	13/10/23	HDR	
1	PRELIMINARY	16/10/23	HDR	
2	FOR INFORMATION	14/12/23	HDR	
3	FOR INFORMATION	21/12/23	HDR	
4	PRELIMINARY	31/01/24	HDR	

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PROJECT
TEMORA HOSPITAL REDEVELOPMENT TEMORA NSW 2666

DRAWING TITLE
GENERAL ARRANGEMENT SECTIONS - 2

SCALE
1 : 200 @ A1

PROJECT NUMBER
130908

DRAWING NUMBER
130908-HDR-AR-DWG-3112

ISSUE
4

PROJECT STATUS
PRELIMINARY

31/01/2024 3:50:01 PM

Appendix C: Laboratory Results Summary Tables

DSI Summary Tables

JKEnvironments

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration
ACM:	Asbestos Containing Material
ADWG:	AustralianDrinking Water Guidelines
AF:	Asbestos Fines
ANZG	Australian and New Zealand Guidelines
B(a)P:	Benzo(a)pyrene
CEC:	Cation Exchange Capacity
CRC:	Cooperative Research Centre
CT:	Contaminant Threshold
EILs:	Ecological Investigation Levels
ESLs:	Ecological Screening Levels
FA:	Fibrous Asbestos
GIL:	Groundwater Investigation Levels
GSW:	General Solid Waste
HILs:	Health Investigation Levels
HSLs:	Health Screening Levels
HSL-SSA:	Health Screening Level-SiteSpecific Assessment
kg/L	kilograms per litre
NA:	Not Analysed
NC:	Not Calculated
NEPM:	National Environmental Protection Measure
NHMRC:	National Health and Medical Research Council
NL:	Not Limiting
NSL:	No Set Limit
OCP:	Organochlorine Pesticides
OPP:	Organophosphorus Pesticides
PAHs:	Polycyclic Aromatic Hydrocarbons
%w/w:	weight per weight
ppm:	Parts per million
PCBs:	Polychlorinated Biphenyls
PCE:	Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
pH_{KCL} :	pH of filtered 1:20, 1M KCL extract, shaken overnight
pH_{ox} :	pH of filtered 1:20 1M KCl after peroxide digestion
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
RSL:	Regional Screening Levels
RSW:	Restricted Solid Waste
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
S_{Cr}:	Chromium reducible sulfur
S_{POS}:	Peroxide oxidisable Sulfur
SSA:	Site Specific Assessment
SSHSLs:	Site Specific Health Screening Levels
TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
TB:	Trip Blank
TCA:	1,1,1 Trichloroethane (methyl chloroform)
TCE:	Trichloroethylene (Trichloroethene)
TCLP:	Toxicity Characteristics Leaching Procedure
TPA:	Total Potential Acidity, 1M KCL peroxide digest
TS:	Trip Spike
TRH:	Total Recoverable Hydrocarbons
TSA:	Total Sulfide Acidity (TPA-TAA)
UCL:	Upper Level Confidence Limit on Mean Valu
USEPA	United States Environmental Protection Agency
VOCC:	Volatile Organic Chlorinated Compounds
WHO:	World Health Organisation

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also refered to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-A: 'Residential with garden/accessible soils; children's day care centers; preschools; and primary schools'

All data in mg/kg unless stated otherwise			HEAVY METALS									PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)		
			Arsenic	Cadmium	Chromium (Total)	Chromium VI	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos	TOTAL PCBs	ASBESTOS FIBRES
PQL - Envirolab Services			4	0.4	1	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			100	20	NSL	100	6000	300	40	400	7400	300	3	10	270	300	6	50	240	6	160	1	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																					
TP101	0-0.1	Fill: Silty Clay	6	<0.4	40	NA	65	21	0.2	11	36	19	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP101	0.4-0.5	Silty Clay	6	<0.4	51	NA	72	13	<0.1	12	26	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP102	0-0.1	Fill: Silty Clay	6	<0.4	34	NA	58	20	<0.1	10	36	34	4.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP102 - [LAB_DUP]	0-0.1	Laboratory Duplicate	6	<0.4	35	NA	60	20	<0.1	10	38	32	3.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP103	0-0.1	Fill: Silty Clay	5	<0.4	37	NA	43	28	<0.1	9	32	24	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP104	0-0.1	Fill: Silty Clay	5	<0.4	34	NA	58	21	<0.1	10	39	59	6.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP105	0-0.1	Fill: Silty Clay	4	<0.4	26	NA	52	21	<0.1	8	38	54	6.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP106	0-0.1	Fill: Silty Clay	5	<0.4	33	NA	72	18	<0.1	11	43	5.3	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP106	0.4-0.5	Silty Clay	5	<0.4	44	NA	100	8	<0.1	9	24	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP107	0-0.1	Fill: Silty Clay	6	<0.4	39	NA	74	14	<0.1	10	39	2.8	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP108	0-0.1	Fill: Silty Clay	11	<0.4	46	NA	81	21	0.2	11	49	2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP108	0.4-0.5	Silty Clay	8	<0.4	46	NA	100	9	<0.1	10	30	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP109	0-0.1	Fill: Silty Clay	8	<0.4	57	NA	140	10	<0.1	13	30	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP110	0-0.1	Silty Clay	10	<0.4	59	NA	190	10	0.1	12	30	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP110 - [LAB_DUP]	0-0.1	Laboratory Duplicate	9	<0.4	64	NA	200	8	<0.1	12	30	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP111	0-0.1	Fill: Silty Clay	5	<0.4	25	NA	100	12	<0.1	7	33	3.6	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP112	0-0.1	Fill: Silty Clay	6	<0.4	21	NA	320	35	<0.1	10	68	1.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP113	0-0.1	Fill: Silty Clay	7	<0.4	47	NA	250	9	<0.1	13	53	2.9	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP113	0.9-1.0	Silty Clay	7	<0.4	29	NA	340	21	<0.1	11	280	14	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP114	0-0.1	Fill: Silty Clay	8	<0.4	33	NA	170	79	<0.1	15	77	6	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP115	0-0.1	Fill: Silty Sand	23	<0.4	27	NA	56	32	0.5	11	140	2.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP116	0-0.05	Fill: Silty Sand	5	<0.4	29	NA	61	19	0.1	9	44	3.1	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP116	0.4-0.5	Silty Clay	5	<0.4	40	NA	110	6	<0.1	10	27	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP117	0-0.1	Fill: Silty Clay	5	<0.4	36	NA	66	16	<0.1	10	38	2.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP117 - [LAB_DUP]	0-0.1	Laboratory Duplicate	5	<0.4	38	NA	67	15	<0.1	11	39	2.9	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP118	0-0.1	Fill: Silty Clay	5	<0.4	36	NA	62	21	<0.1	10	42	13	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP119	0-0.1	Fill: Silty Clay	4	<0.4	44	NA	43	14	<0.1	10	37	2.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP120	0-0.1	Fill: Silty Clay	5	<0.4	37	NA	54	44	0.1	9	36	27	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP120	0.4-0.5	Silty Clay	5	<0.4	45	NA	80	11	<0.1	8	19	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP121	0-0.1	Fill: Silty Clay	5	<0.4	40	NA	64	14	<0.1	10	38	3.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP122	0-0.1	Fill: Silty Clay	6	<0.4	40	NA	86	18	<0.1	9	42	3.4	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP123	0-0.1	Silty Clay	12	<0.4	140	<1	310	6	<0.1	30	64	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP124	0-0.1	Fill: Silty Clay	10	<0.4	13	NA	120	9	<0.1	5	27	<0.05	<0.5	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP124 - [LAB_DUP]	0-0.1	Laboratory Duplicate	12	<0.4	26	NA	180	12	<0.1	9	42	<0.05	<0.5	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP124 - [LAB_TRIP]	0-0.1	Laboratory Triplicate	11	<0.4	17	NA	140	11	<0.1	6	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP125	0-0.1	Fill: Silty Clay	19	<0.4	31	NA	240	21	<0.1	11	54	2.8	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP125	0.7-0.8	Silty Clay	9	<0.4	61	NA	210	10	<0.1	12	22	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH126	0.02-0.2	Fill: Sandy Silty Clay	4	<0.4	11	NA	4	4	<0.1	1	3	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP127	0-0.1	Fill: Silty Clay	6	<0.4	35	NA	84	34	0.1	9	59	1.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP127	0.3-0.4	Silty Clay	6	<0.4	71	NA	120	12	<0.1	11	23	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP128	0-0.1	Fill: Silty Clay	7	<0.4	45	NA	69	11	<0.1	13	30	0.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP129	0-0.1	Fill: Silty Clay	6	<0.4	53	NA	60	18	0.1	12	35	2.9	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP130	0-0.1	Fill: Silty Clay	9	<0.4	56	NA	80	14	<0.1	15	31	3.4	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP130	0.4-0.5	Silty Clay	8	<0.4	110	<1	160	12	<0.1	19	24	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP131	0-0.1	Fill: Silty Clay	6	<0.4	18	NA	330	470	<0.1	9	190	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP131	0.2-0.3	XW Andesite	NA	NA	NA	NA	NA	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP132	0-0.1	Fill: Silty Clay	5	<0.4	16	NA	210	32	<0.1	8	68	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP133	0-0.1	Fill: Silty Clay	<4	0.4	25	NA	220	120	<0.1	9	290	3.8	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP134	0-0.1	Fill: Clayey Silt	5	<0.4	22	NA	160	44	<0.1	8	120	12	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP135	0-0.1	Fill: Silty Clay	<4	<0.4	25	NA	190	37	<0.1	9	71	7	1.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP135 - [LAB_DUP]	0-0.1	Laboratory Duplicate	5	<0.4	31	NA	230	32	<0.1	11	90	16	2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP136	0-0.1	Fill: Silty Clay	5	<0.4	15	NA	95	37	<0.1	7	100	0.4	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP136	0.4-0.5	XW Andesite	5	<0.4	26	NA	350	15	<0.1	11	93	0.4	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP137	0-0.1	Fill: Silty Clay	5	<0.4	20	NA	210	26	<0.1	9	67	0.4	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP138	0-0.1	Fill: Silty Clay	5	<0.4	26	NA	260	43	<0.1	11	100	0.2	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP139	0-0.1	Fill: Silty Clay	5	<0.4	21	NA	210	98	0.1	8	230	2.2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP139	0.2-0.3	Silty Clay	9	<0.4	37	NA	390	180	0.2	15	400	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP140	0-0.1	Fill: Silty Clay	13	<0.4	21	NA	96	23	<0.1	8	76	0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP140	0.4-0.5	Silty Clay	5	<0.4	20	NA	480	6	<0.1	12	51	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP141	0-0.1	Fill: Clayey Silt	<4	<0.4	12	NA	28	32	<0.1	5	46	2	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP142	0-0.1	Fill: Silty Clay	6	<0.4	31	NA	54	27	<0.1	7	29	19	2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP142	0.4-0.5	Silty Clay	7	<0.4	110	<1	150	14	<0.1	16	23	0.07	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP143	0-0.1	Fill: Clayey Silt	5	<0.4	20	NA	150	15	<0.1	7	40	6.1	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP143 - [LAB_DUP]	0-0.1	Laboratory Duplicate	6	<0.4	23	NA	140	17	<0.1	7	41	6.8	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP143	0.2-0.3	Fill: Silty Clay	7	<0.4	37	NA	320	11	<0.1	12	32	0.4	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP144	0-0.1	Fill: Silty Sand	5	<0.4	27	NA	50	54	<0.1	8	32	0.4	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP144	0.2-0.3	Fill: Silty Clayey Sand	14	<0.4	10	NA	6	6	<0.1	3	5	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP145	0-0.1	Fill: Silty Gravelly Clay	6	<0.4	44	NA	58	18	<0.1	10	26	0.3	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP145	0.4-0.5	Silty Clay	6	<0.4	81	NA	94	12	<0.1	13	20	0.4	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP146	0-0.05	Fill: Gravelly Silty Clay	7	<0.4	53	NA	170	14	<0.1	13	51	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP146	0.3-0.4	Silty Clay	8	<0.4	21	NA	500	4	<0.1	10	25	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP147	0-0.1	Fill: Clayey Silt	<4	<0.4	19	NA	15	13	<0.1	4	26	2.9	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP147 - [LAB_DUP]	0-0.1	Laboratory Duplicate	<4	<0.4	14	NA	13	12	<0.1	4	25	1.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP147	0.6-0.7	Fill: Sandy Clay	7	<0.4	28	NA	130	48	<0.1	18	170	95	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP148	0-0.1	Fill: Clayey Silt	<4	<0.4	12	NA	14	8	<0.1	3	25	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP149	0-0.1	Fill: Silty Clay	8	<0.4	19	NA	25	48	<0.1	6	57	1	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP149	0.5-0.6	Fill: Silty Clay	12	<0.4	62	NA	120	29	<0.1	24	68	9.8	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP149	0.7-0.8	Silty Clay	9	<0.4	110	<1	180	14	<0.1	22	30	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP150	0-0.1	Fill: Silty Clay	8	<0.4	46	NA	86	17	<0.1	14	36	4.1	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP151	0-0.1	Fill: Silty Clay	7	<0.4	21	NA	11	15	<0.1	6	19	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP152	0-0.1	Fill: Silty Clay	14	<0.4	34	NA	57	14	<0.1	17	44	2.9	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP153	0-0.1	Fill: Silty Sandy Clay	5	<0.4	29	NA	39	20	<0.1	8	34	190	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP153	0.6-0.7	Silty Clay	9	<0.4	120	<1	160	11	<0.1	16	23	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP154	0-0.1	Fill: Gravelly Clayey Sand	5	<0.4	18	NA	27	11	<0.1	5	21	15	2.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP154 - [LAB_DUP]	0-0.1	Laboratory Duplicate	6	<0.4	22	NA	32	13	<0.1	6	24	19	2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH155	0.05-0.2	Fill: Silty Sand	10	<0.4	13	NA	12	5	<0.1	2	6	19	2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH155	0.2-0.5	Fill: Silty Clay	7	<0.4	62	NA	140	77	0.2	19	110	200	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH155	0.5-0.8	Silty Clay	7	<0.4	110	<1	160	13	<0.1	21	25	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP156	0-0.1	Fill: Silty Clay	8	<0.4	48	NA	140	39	<0.1	14	110	9.2	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH157	0.03-0.3	Fill: Silty Clay	10	<0.4	12	NA	21	16	<0.1	8	290	4.2	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH158	0.04-0.3	Fill: Silty Sandy Clay	10	<0.4	19	NA	230	26	<0.1	9	39	3.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH158	0.3-0.6	XW Andesite	6	<0.4	15	NA	370	3	<0.1	10	33	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP159	0-0.1	Fill: Clayey Silt	<4	<0.4	11	NA	19	13	<0.1	4	37	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP159 - [LAB_DUP]	0-0.1	Laboratory Duplicate	<4	<0.4	14	NA	19	14	<0.1	4	35	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP160	0-0.1	Fill: Silty Clay	5	<0.4	19	NA	270	69	<0.1	8	77	2.8	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
TP160	0.2-0.3	Silty Clay	6	<0.4	18	NA	440	5	<0.1	10	22	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP161	0-0.1	Fill: Silty Clay	7	<0.4	21	NA	160	35	<0.1	7	57	8.6	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH162	0.04-0.2	Fill: Silty Clay	7	<0.4	17	NA	250	6	<0.1	8	26	120	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH162	1.2-1.4	Silty Clay	7	<0.4	74	NA	130	12	<0.1	11	21	2.8	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP163	0-0.1	Fill: Silty Clay	7	<0.4	61	NA	66	13	<0.1	14	22	5	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
SDUP101	0-0.1	Duplicate of TP112	6	<0.4	22	NA	290	39	<0.1	10	71	1.6	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	NA
SDUP101- [LAB_DUP]	0-0.1	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	NA
SDUP102	0-0.1	Duplicate of TP111	5	<0.4	21	NA	120	7	<0.1	8	34	3.4	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP103	0-0.1	Duplicate of TP110	16	<0.4	61	NA	260	3	<0.1	14	36	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	NA
SDUP104	0-0.1	Duplicate of TP109	8	<0.4	63	NA	140	5	<0.1	14	33	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP105	0-0.1	Duplicate of TP107	5	<0.4	39	NA	69	15	<0.1	11	41	2.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP106	0-0.1	Duplicate of TP102	5	<0.4	32	NA	52	18	<0.1	9	31	23	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP107	0-0.05	Duplicate of TP116	6	<0.4	33	NA	80	21	0.1	10	49	3.1	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP108	0-0.1	Duplicate of TP145	8	<0.4	49	NA	65	21	<0.1	10	27	0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP109	0-0.1	Duplicate of TP143	5	<0.4	20	NA	130	16	<0.1	7	39	8.1	1.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP109 - [LAB_DUP]	0-0.1	Laboratory Duplicate	5	<0.4	20	NA	140	16	<0.1	7	40	7.4	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP110	0-0.1	Duplicate of TP138	7	<0.4	40	NA	460	67	0.1	16	150	0.3	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FCF101	-	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
Total Number of Samples			110	110	110	6	110	111	110	110	110	109	109	46	46	46	46	46	46	46	47	44	67
Maximum Value			23	0.4	140	<PQL	500	470	0.5	30	400	200	24	<PQL	<PQL	<PQL	0.5	<PQL	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**

TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL							
TP101	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
TP101	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.6
TP102	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
TP102 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP103	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	**56**	<0.2	<0.5	<1	<1	<1	1.4
TP104	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2
TP105	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
TP106	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
TP106	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.9
TP107	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
TP108	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
TP108	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	22.5
TP109	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
TP110	0-0.1	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2
TP110 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP111	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
TP112	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
TP113	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	6.4
TP113	0.9-1.0	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	7.9
TP114	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.7
TP115	0-0.1	Fill: Silty Sand	0m to <1m	Sand	<25	**73**	<0.2	<0.5	<1	<1	<1	2.8
TP116	0-0.05	Fill: Silty Sand	0m to <1m	Sand	<25	**120**	<0.2	<0.5	<1	<1	<1	4.3
TP116	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	9.5
TP117	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
TP117 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP118	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
TP119	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.3
TP120	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	5.2
TP120	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	8.6
TP121	0-0.1	Fill: Silty Clay	0m to <1m	Sand	**37**	<50	<0.2	<0.5	<1	<1	<1	4.3
TP122	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.4
TP123	0-0.1	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.2
TP124	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
TP124 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP125	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
TP125	0.7-0.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
BH126	0.02-0.2	Fill: Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.5
TP127	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	5.9
TP127	0.3-0.4	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	8.7
TP128	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	6
TP129	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	7.5
TP130	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	9.8
TP130	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	6.2
TP131	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.8
TP132	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
TP133	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.1
TP134	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.3
TP135	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3
TP135 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP136	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.9
TP136	0.4-0.5	XW Andesite	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
TP137	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
TP138	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
TP139	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
TP139	0.2-0.3	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.9
TP140	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.4
TP140	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.5
TP141	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.7
TP142	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.2
TP142	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	7.3
TP143	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.9
TP143 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP143	0.2-0.3	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.6
TP144	0-0.1	Fill: Silty Sand	0m to <1m	Sand	<25	**210**	<0.2	<0.5	<1	<1	<1	1.7
TP144	0.2-0.3	Fill: Silty Clayey Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2
TP145	0-0.1	Fill: Silty Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.1
TP145	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.5
TP146	0-0.05	Fill: Gravelly Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	7.2
TP146	0.3-0.4	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	7.4
TP147	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.5
TP147 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP147	0.6-0.7	Fill: Sandy Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.8
TP148	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.8
TP149	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
TP149	0.5-0.6	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
TP149	0.7-0.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
TP150	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
TP151	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
TP152	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
TP153	0-0.1	Fill: Silty Sandy Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.2
TP153	0.6-0.7	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.5
TP154	0-0.1	Fill: Gravelly Clayey Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4
TP154 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH155	0.05-0.2	Fill: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.3
BH155	0.2-0.5	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.1
BH155	0.5-0.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.9
TP156	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH157	0.03-0.3	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.1
BH158	0.04-0.3	Fill: Silty Sandy Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.6
BH158	0.3-0.6	XW Andesite	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	8.1
TP159	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.9
TP159 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP160	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.6
TP160	0.2-0.3	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	5.8
TP161	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.4
BH162	0.04-0.2	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	6
BH162	1.2-1.4	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.5
TP163	0-0.1	Fill: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
SDUP101	0-0.1	Duplicate of TP112	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP102	0-0.1	Duplicate of TP111	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP103	0-0.1	Duplicate of TP110	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP104	0-0.1	Duplicate of TP109	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP105	0-0.1	Duplicate of TP107	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP106	0-0.1	Duplicate of TP102	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP107	0-0.05	Duplicate of TP116	0m to <1m	Sand	**71**	**150**	<0.2	<0.5	<1	<1	<1	NA
SDUP108	0-0.1	Duplicate of TP145	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP109	0-0.1	Duplicate of TP143	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP109 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP110	0-0.1	Duplicate of TP138	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples					109	109	109	109	109	109	109	89
Maximum Value					71	210	<PQL	<PQL	<PQL	<PQL	<PQL	22.5

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below

HSL SOIL ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Sample Description	Depth Category	Soil Category	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
TP101	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP101	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP102	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP102 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP103	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP104	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP105	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP106	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP106	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP107	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP108	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP108	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP109	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP110	0-0.1	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP110 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP111	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP112	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP113	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP113	0.9-1.0	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP114	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP115	0-0.1	Fill: Silty Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP116	0-0.05	Fill: Silty Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP116	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP117	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP117 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP118	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP119	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP120	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP120	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP121	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP122	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP123	0-0.1	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP124	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP124 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP125	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP125	0.7-0.8	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH126	0.02-0.2	Fill: Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP127	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP127	0.3-0.4	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP128	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP129	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP130	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP130	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP131	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP132	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP133	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP134	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP135	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP135 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP136	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP136	0.4-0.5	XW Andesite	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP137	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP138	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP139	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP139	0.2-0.3	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP140	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP140	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP141	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP142	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP142	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP143	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP143 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP143	0.2-0.3	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP144	0-0.1	Fill: Silty Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP144	0.2-0.3	Fill: Silty Clayey Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP145	0-0.1	Fill: Silty Gravelly Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP145	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP146	0-0.05	Fill: Gravelly Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP146	0.3-0.4	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP147	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP147 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP147	0.6-0.7	Fill: Sandy Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP148	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP149	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP149	0.5-0.6	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP149	0.7-0.8	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP150	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP151	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP152	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP153	0-0.1	Fill: Silty Sandy Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP153	0.6-0.7	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP154	0-0.1	Fill: Gravelly Clayey Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP154 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH155	0.05-0.2	Fill: Silty Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH155	0.2-0.5	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH155	0.5-0.8	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP156	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH157	0.03-0.3	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH158	0.04-0.3	Fill: Silty Sandy Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH158	0.3-0.6	XW Andesite	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP159	0-0.1	Fill: Clayey Silt	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP159 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP160	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP160	0.2-0.3	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP161	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH162	0.04-0.2	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH162	1.2-1.4	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP163	0-0.1	Fill: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP101	0-0.1	Duplicate of TP112	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP102	0-0.1	Duplicate of TP111	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP103	0-0.1	Duplicate of TP110	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP104	0-0.1	Duplicate of TP109	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP105	0-0.1	Duplicate of TP107	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP106	0-0.1	Duplicate of TP102	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP107	0-0.05	Duplicate of TP116	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP108	0-0.1	Duplicate of TP145	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP109	0-0.1	Duplicate of TP143	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP109 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP110	0-0.1	Duplicate of TP138	0m to <1m	Sand	45	110	0.5	160	55	40	3

TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category			**RESIDENTIAL, PARKLAND & PUBLIC OPEN SPACE**			
Sample Reference	**Sample Depth**	**Soil Texture**				
TP101	0-0.1	Coarse	<25	<50	<100	<100
TP101	0.4-0.5	Coarse	<25	<50	<100	<100
TP102	0-0.1	Coarse	<25	<50	**210**	<100
TP102 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**210**	<100
TP103	0-0.1	Coarse	<25	**56**	**340**	**160**
TP104	0-0.1	Coarse	<25	<50	**140**	<100
TP105	0-0.1	Coarse	<25	<50	**180**	<100
TP106	0-0.1	Coarse	<25	<50	<100	<100
TP106	0.4-0.5	Coarse	<25	<50	<100	<100
TP107	0-0.1	Coarse	<25	<50	<100	<100
TP108	0-0.1	Coarse	<25	<50	<100	<100
TP108	0.4-0.5	Coarse	<25	<50	<100	<100
TP109	0-0.1	Coarse	<25	<50	<100	<100
TP110	0-0.1	Coarse	<25	<50	<100	<100
TP110 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
TP111	0-0.1	Coarse	<25	<50	**230**	<100
TP112	0-0.1	Coarse	<25	<50	<100	<100
TP113	0-0.1	Coarse	<25	<50	<100	<100
TP113	0.9-1.0	Coarse	<25	<50	**100**	<100
TP114	0-0.1	Coarse	<25	<50	<100	<100
TP115	0-0.1	Coarse	<25	**73**	**620**	**250**
TP116	0-0.05	Coarse	<25	**120**	**720**	**240**
TP116	0.4-0.5	Coarse	<25	<50	<100	<100
TP117	0-0.1	Coarse	<25	<50	<100	<100
TP117 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**120**	<100
TP118	0-0.1	Coarse	<25	<50	**140**	<100
TP119	0-0.1	Coarse	<25	<50	<100	<100
TP120	0-0.1	Coarse	<25	<50	**130**	<100
TP120	0.4-0.5	Coarse	<25	<50	<100	<100
TP121	0-0.1	Coarse	**37**	<50	**170**	<100
TP122	0-0.1	Coarse	<25	<50	**160**	<100
TP123	0-0.1	Coarse	<25	<50	<100	<100
TP124	0-0.1	Coarse	<25	<50	<100	<100
TP124 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**100**	<100
TP125	0-0.1	Coarse	<25	<50	**150**	<100
TP125	0.7-0.8	Coarse	<25	<50	<100	<100
BH126	0.02-0.2	Coarse	<25	<50	<100	<100
TP127	0-0.1	Coarse	<25	<50	<100	<100
TP127	0.3-0.4	Coarse	<25	<50	<100	<100
TP128	0-0.1	Coarse	<25	<50	<100	<100
TP129	0-0.1	Coarse	<25	<50	<100	<100
TP130	0-0.1	Coarse	<25	<50	<100	<100
TP130	0.4-0.5	Coarse	<25	<50	<100	<100
TP131	0-0.1	Coarse	<25	<50	<100	<100
TP132	0-0.1	Coarse	<25	<50	**130**	<100
TP133	0-0.1	Coarse	<25	<50	<100	<100
TP134	0-0.1	Coarse	<25	<50	**100**	<100
TP135	0-0.1	Coarse	<25	<50	<100	<100
TP135 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
TP136	0-0.1	Coarse	<25	<50	**230**	**240**
TP136	0.4-0.5	Coarse	<25	<50	<100	<100
TP137	0-0.1	Coarse	<25	<50	<100	<100
TP138	0-0.1	Coarse	<25	<50	<100	<100
TP139	0-0.1	Coarse	<25	<50	<100	<100
TP139	0.2-0.3	Coarse	<25	<50	<100	<100
TP140	0-0.1	Coarse	<25	<50	<100	<100
TP140	0.4-0.5	Coarse	<25	<50	<100	<100
TP141	0-0.1	Coarse	<25	<50	<100	<100
TP142	0-0.1	Coarse	<25	<50	<100	<100
TP142	0.4-0.5	Coarse	<25	<50	<100	<100
TP143	0-0.1	Coarse	<25	<50	<100	<100
TP143 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
TP143	0.2-0.3	Coarse	<25	<50	<100	<100
TP144	0-0.1	Coarse	<25	**210**	**1100**	**440**
TP144	0.2-0.3	Coarse	<25	<50	<100	<100
TP145	0-0.1	Coarse	<25	<50	**100**	<100
TP145	0.4-0.5	Coarse	<25	<50	<100	<100
TP146	0-0.05	Coarse	<25	<50	<100	<100
TP146	0.3-0.4	Coarse	<25	<50	<100	<100
TP147	0-0.1	Coarse	<25	<50	<100	<100
TP147 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
TP147	0.6-0.7	Coarse	<25	<50	**160**	<100
TP148	0-0.1	Coarse	<25	<50	<100	<100
TP149	0-0.1	Coarse	<25	<50	**160**	**260**
TP149	0.5-0.6	Coarse	<25	<50	<100	<100
TP149	0.7-0.8	Coarse	<25	<50	<100	<100
TP150	0-0.1	Coarse	<25	<50	<100	<100
TP151	0-0.1	Coarse	<25	<50	<100	<100
TP152	0-0.1	Coarse	<25	<50	<100	<100
TP153	0-0.1	Coarse	<25	<50	**400**	**160**
TP153	0.6-0.7	Coarse	<25	<50	<100	<100
TP154	0-0.1	Coarse	<25	<50	<100	<100
TP154 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
BH155	0.05-0.2	Coarse	<25	<50	<100	<100
BH155	0.2-0.5	Coarse	<25	<50	**400**	**120**
BH155	0.5-0.8	Coarse	<25	<50	<100	<100
TP156	0-0.1	Coarse	<25	<50	<100	<100
BH157	0.03-0.3	Coarse	<25	<50	<100	<100
BH158	0.04-0.3	Coarse	<25	<50	<100	<100
BH158	0.3-0.6	Coarse	<25	<50	<100	<100
TP159	0-0.1	Coarse	<25	<50	<100	<100
TP159 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
TP160	0-0.1	Coarse	<25	<50	<100	<100
TP160	0.2-0.3	Coarse	<25	<50	<100	<100
TP161	0-0.1	Coarse	<25	<50	**140**	<100
BH162	0.04-0.2	Coarse	<25	<50	**220**	<100
BH162	1.2-1.4	Coarse	<25	<50	<100	<100
TP163	0-0.1	Coarse	<25	<50	<100	<100
SDUP101	0-0.1	Coarse	<25	<50	<100	<100
SDUP102	0-0.1	Coarse	<25	<50	<100	<100
SDUP103	0-0.1	Coarse	<25	<50	<100	<100
SDUP104	0-0.1	Coarse	<25	<50	<100	<100
SDUP105	0-0.1	Coarse	<25	<50	<100	<100
SDUP106	0-0.1	Coarse	<25	<50	**180**	<100
SDUP107	0-0.05	Coarse	**71**	**150**	**830**	**240**
SDUP108	0-0.1	Coarse	<25	<50	<100	<100
SDUP109	0-0.1	Coarse	<25	<50	**140**	<100
SDUP109 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
SDUP110	0-0.1	Coarse	<25	<50	<100	<100
Total Number of Samples			109	109	109	109
Maximum Value			71	210	1100	440

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Soil Texture**	C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
TP101	0-0.1	Coarse	700	1000	2500	10000
TP101	0.4-0.5	Coarse	700	1000	2500	10000
TP102	0-0.1	Coarse	700	1000	2500	10000
TP102 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP103	0-0.1	Coarse	700	1000	2500	10000
TP104	0-0.1	Coarse	700	1000	2500	10000
TP105	0-0.1	Coarse	700	1000	2500	10000
TP106	0-0.1	Coarse	700	1000	2500	10000
TP106	0.4-0.5	Coarse	700	1000	2500	10000
TP107	0-0.1	Coarse	700	1000	2500	10000
TP108	0-0.1	Coarse	700	1000	2500	10000
TP108	0.4-0.5	Coarse	700	1000	2500	10000
TP109	0-0.1	Coarse	700	1000	2500	10000
TP110	0-0.1	Coarse	700	1000	2500	10000
TP110 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP111	0-0.1	Coarse	700	1000	2500	10000
TP112	0-0.1	Coarse	700	1000	2500	10000
TP113	0-0.1	Coarse	700	1000	2500	10000
TP113	0.9-1.0	Coarse	700	1000	2500	10000
TP114	0-0.1	Coarse	700	1000	2500	10000
TP115	0-0.1	Coarse	700	1000	2500	10000
TP116	0-0.05	Coarse	700	1000	2500	10000
TP116	0.4-0.5	Coarse	700	1000	2500	10000
TP117	0-0.1	Coarse	700	1000	2500	10000
TP117 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP118	0-0.1	Coarse	700	1000	2500	10000
TP119	0-0.1	Coarse	700	1000	2500	10000
TP120	0-0.1	Coarse	700	1000	2500	10000
TP120	0.4-0.5	Coarse	700	1000	2500	10000
TP121	0-0.1	Coarse	700	1000	2500	10000
TP122	0-0.1	Coarse	700	1000	2500	10000
TP123	0-0.1	Coarse	700	1000	2500	10000
TP124	0-0.1	Coarse	700	1000	2500	10000
TP124 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP125	0-0.1	Coarse	700	1000	2500	10000
TP125	0.7-0.8	Coarse	700	1000	2500	10000
BH126	0.02-0.2	Coarse	700	1000	2500	10000
TP127	0-0.1	Coarse	700	1000	2500	10000
TP127	0.3-0.4	Coarse	700	1000	2500	10000
TP128	0-0.1	Coarse	700	1000	2500	10000
TP129	0-0.1	Coarse	700	1000	2500	10000
TP130	0-0.1	Coarse	700	1000	2500	10000
TP130	0.4-0.5	Coarse	700	1000	2500	10000
TP131	0-0.1	Coarse	700	1000	2500	10000
TP132	0-0.1	Coarse	700	1000	2500	10000
TP133	0-0.1	Coarse	700	1000	2500	10000
TP134	0-0.1	Coarse	700	1000	2500	10000
TP135	0-0.1	Coarse	700	1000	2500	10000
TP135 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP136	0-0.1	Coarse	700	1000	2500	10000
TP136	0.4-0.5	Coarse	700	1000	2500	10000
TP137	0-0.1	Coarse	700	1000	2500	10000
TP138	0-0.1	Coarse	700	1000	2500	10000
TP139	0-0.1	Coarse	700	1000	2500	10000
TP139	0.2-0.3	Coarse	700	1000	2500	10000
TP140	0-0.1	Coarse	700	1000	2500	10000
TP140	0.4-0.5	Coarse	700	1000	2500	10000
TP141	0-0.1	Coarse	700	1000	2500	10000
TP142	0-0.1	Coarse	700	1000	2500	10000
TP142	0.4-0.5	Coarse	700	1000	2500	10000
TP143	0-0.1	Coarse	700	1000	2500	10000
TP143 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP143	0.2-0.3	Coarse	700	1000	2500	10000
TP144	0-0.1	Coarse	700	1000	2500	10000
TP144	0.2-0.3	Coarse	700	1000	2500	10000
TP145	0-0.1	Coarse	700	1000	2500	10000
TP145	0.4-0.5	Coarse	700	1000	2500	10000
TP146	0-0.05	Coarse	700	1000	2500	10000
TP146	0.3-0.4	Coarse	700	1000	2500	10000
TP147	0-0.1	Coarse	700	1000	2500	10000
TP147 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP147	0.6-0.7	Coarse	700	1000	2500	10000
TP148	0-0.1	Coarse	700	1000	2500	10000
TP149	0-0.1	Coarse	700	1000	2500	10000
TP149	0.5-0.6	Coarse	700	1000	2500	10000
TP149	0.7-0.8	Coarse	700	1000	2500	10000
TP150	0-0.1	Coarse	700	1000	2500	10000
TP151	0-0.1	Coarse	700	1000	2500	10000
TP152	0-0.1	Coarse	700	1000	2500	10000
TP153	0-0.1	Coarse	700	1000	2500	10000
TP153	0.6-0.7	Coarse	700	1000	2500	10000
TP154	0-0.1	Coarse	700	1000	2500	10000
TP154 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
BH155	0.05-0.2	Coarse	700	1000	2500	10000
BH155	0.2-0.5	Coarse	700	1000	2500	10000
BH155	0.5-0.8	Coarse	700	1000	2500	10000
TP156	0-0.1	Coarse	700	1000	2500	10000
BH157	0.03-0.3	Coarse	700	1000	2500	10000
BH158	0.04-0.3	Coarse	700	1000	2500	10000
BH158	0.3-0.6	Coarse	700	1000	2500	10000
TP159	0-0.1	Coarse	700	1000	2500	10000
TP159 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP160	0-0.1	Coarse	700	1000	2500	10000
TP160	0.2-0.3	Coarse	700	1000	2500	10000
TP161	0-0.1	Coarse	700	1000	2500	10000
BH162	0.04-0.2	Coarse	700	1000	2500	10000
BH162	1.2-1.4	Coarse	700	1000	2500	10000
TP163	0-0.1	Coarse	700	1000	2500	10000
SDUP101	0-0.1	Coarse	700	1000	2500	10000
SDUP102	0-0.1	Coarse	700	1000	2500	10000
SDUP103	0-0.1	Coarse	700	1000	2500	10000
SDUP104	0-0.1	Coarse	700	1000	2500	10000
SDUP105	0-0.1	Coarse	700	1000	2500	10000
SDUP106	0-0.1	Coarse	700	1000	2500	10000
SDUP107	0-0.05	Coarse	700	1000	2500	10000
SDUP108	0-0.1	Coarse	700	1000	2500	10000
SDUP109	0-0.1	Coarse	700	1000	2500	10000
SDUP109 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
SDUP110	0-0.1	Coarse	700	1000	2500	10000

TABLE S4
SOIL LABORATORY RESULTS COMPARED T0 DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C_6-C_{10}	>C_{10}-C_{16}	>C_{16}-C_{34}	>C_{34}-C_{40}	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 -Direct contact Criteria		4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	
Site Use		RESIDENTIAL WITH ACCESSIBLE SOIL- DIRECT SOIL CONTACT									
Sample Reference	**Sample Depth**										
TP101	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.7**
TP101	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.6**
TP102	0-0.1	<25	<50	**210**	<100	<0.2	<0.5	<1	<1	<1	**1.5**
TP102 - [LAB_DUP]	0-0.1	<25	<50	**210**	<100	<0.2	<0.5	<1	<1	<1	NA
TP103	0-0.1	<25	**56**	**340**	**160**	<0.2	<0.5	<1	<1	<1	**1.4**
TP104	0-0.1	<25	<50	**140**	<100	<0.2	<0.5	<1	<1	<1	**2**
TP105	0-0.1	<25	<50	**180**	<100	<0.2	<0.5	<1	<1	<1	**1.4**
TP106	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
TP106	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.9**
TP107	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
TP108	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
TP108	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**22.5**
TP109	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
TP110	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2**
TP110 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
TP111	0-0.1	<25	<50	**230**	<100	<0.2	<0.5	<1	<1	<1	**1.2**
TP112	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
TP113	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**6.4**
TP113	0.9-1.0	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	**7.9**
TP114	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.7**
TP115	0-0.1	<25	**73**	**620**	**250**	<0.2	<0.5	<1	<1	<1	**2.8**
TP116	0-0.05	<25	**120**	**720**	**240**	<0.2	<0.5	<1	<1	<1	**4.3**
TP116	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**9.5**
TP117	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
TP117 - [LAB_DUP]	0-0.1	<25	<50	**120**	<100	<0.2	<0.5	<1	<1	<1	NA
TP118	0-0.1	<25	<50	**140**	<100	<0.2	<0.5	<1	<1	<1	**1.5**
TP119	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.3**
TP120	0-0.1	<25	<50	**130**	<100	<0.2	<0.5	<1	<1	<1	**5.2**
TP120	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**8.6**
TP121	0-0.1	**37**	<50	**170**	<100	<0.2	<0.5	<1	<1	<1	**4.3**
TP122	0-0.1	<25	<50	**160**	<100	<0.2	<0.5	<1	<1	<1	**2.4**
TP123	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.2**
TP124	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
TP124 - [LAB_DUP]	0-0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	NA
TP125	0-0.1	<25	<50	**150**	<100	<0.2	<0.5	<1	<1	<1	**1.1**
TP125	0.7-0.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.7**
BH126	0.02-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.5**
TP127	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**5.9**
TP127	0.3-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**8.7**
TP128	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**6**
TP129	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**7.5**
TP130	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**9.8**
TP130	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**6.2**
TP131	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.8**
TP132	0-0.1	<25	<50	**130**	<100	<0.2	<0.5	<1	<1	<1	**1.1**
TP133	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.1**
TP134	0-0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	**2.3**
TP135	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3**
TP135 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
TP136	0-0.1	<25	<50	**230**	**240**	<0.2	<0.5	<1	<1	<1	**1.9**
TP136	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.2**
TP137	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
TP138	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
TP139	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.2**
TP139	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.9**
TP140	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.4**
TP140	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.5**
TP141	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.7**
TP142	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.2**
TP142	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**7.3**
TP143	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.9**
TP143 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
TP143	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.6**
TP144	0-0.1	<25	**210**	**1100**	**440**	<0.2	<0.5	<1	<1	<1	**1.7**
TP144	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2**
TP145	0-0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	**2.1**
TP145	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.5**
TP146	0-0.05	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**7.2**
TP146	0.3-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**7.4**
TP147	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.5**
TP147 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
TP147	0.6-0.7	<25	<50	**160**	<100	<0.2	<0.5	<1	<1	<1	**2.8**
TP148	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.8**
TP149	0-0.1	<25	<50	**160**	**260**	<0.2	<0.5	<1	<1	<1	**0.4**
TP149	0.5-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
TP149	0.7-0.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
TP150	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
TP151	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
TP152	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
TP153	0-0.1	<25	<50	**400**	**160**	<0.2	<0.5	<1	<1	<1	**3.2**
TP153	0.6-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.5**
TP154	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4**
TP154 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH155	0.05-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.3**
BH155	0.2-0.5	<25	<50	**400**	**120**	<0.2	<0.5	<1	<1	<1	**4.1**
BH155	0.5-0.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.9**
TP156	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH157	0.03-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.1**
BH158	0.04-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.6**
BH158	0.3-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**8.1**
TP159	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.9**
TP159 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
TP160	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.6**
TP160	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**5.8**
TP161	0-0.1	<25	<50	**140**	<100	<0.2	<0.5	<1	<1	<1	**2.4**
BH162	0.04-0.2	<25	<50	**220**	<100	<0.2	<0.5	<1	<1	<1	**6**
BH162	1.2-1.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.5**
TP163	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
SDUP101	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP102	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP103	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP104	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP105	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP106	0-0.1	<25	<50	**180**	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP107	0-0.05	**71**	**150**	**830**	**240**	<0.2	<0.5	<1	<1	<1	NA
SDUP108	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP109	0-0.1	<25	<50	**140**	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP109 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP110	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples		109	109	109	109	109	109	109	109	109	89
Maximum Value		71	210	1100	440	<PQL	<PQL	<PQL	<PQL	<PQL	22.5

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**

TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HSL-A: Residential with garden/accessible soils; children's day care centers; preschools; and primary schools

FIELD DATA															LABORATORY DATA											
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample refeference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation %(w/w)	FA and AF Estimation %(w/w)
SAC			**No**					**0.01**			**0.001**			**0.001**											**0.01**	**0.001**
6/09/2023	TP101	0-0.1	No	10	11,360	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP101	0-0.1	715.87	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP101	0.1-0.2	NA	10	10,240	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP102	0-0.1	No	10	10,230	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP102	0-0.1	677.2	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP102	0.1-0.5	NA	10	10,060	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP103	0-0.1	No	10	10,510	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP103	0-0.1	616.35	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP103	0.1-0.1	NA	10	10,780	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP104	0-0.1	No	10	10,740	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP104	0-0.1	855.4	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP104	0.1-0.5	NA	10	11,920	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP105	0-0.1	No	10	11,340	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP105	0-0.1	620.18	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP105	0.1-0.4	NA	10	10,820	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP106	0-0.1	No	10	11,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP106	0-0.1	636.54	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP106	0.1-0.2	NA	10	10,110	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP107	0-0.1	No	10	11,360	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP107	0-0.1	670.01	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP108	0-0.1	No	10	11,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP108	0-0.1	771.96	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP108	0.1-0.3	NA	10	10,050	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP109	0-0.1	No	10	11,270	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP109	0-0.1	647.93	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP109	0.1-0.5	NA	10	10,340	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/09/2023	TP111	0-0.1	No	10	10,230	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP111	0-0.1	567.65	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP112	0-0.1	No	10	10,230	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP112	0-0.1	741.87	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP112	0.1-0.2	NA	10	10,520	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP113	0-0.1	No	10	11,670	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP113	0-0.1	896.09	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP113	0.1-0.9	NA	10	12,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP114	0-0.1	No	10	13,330	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP114	0-0.1	649.12	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP115	0-0.1	No	10	10,060	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP115	0-0.1	332.35	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP115	0.1-0.6	NA	10	11,240	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP116	0-0.05	No	10	10,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP116	0-0.05	615.67	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP117	0-0.15	No	10	10,720	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP117	0-0.1	723.37	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
6/09/2023	TP118	0-0.1	No	10	11,120	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP118	0-0.1	744.22	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP119	0-0.1	No	10	12,770	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP119	0-0.1	764.18	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP119	0.1-0.25	NA	10	11,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP120	0-0.1	No	10	11,570	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP120	0-0.1	764.18	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP120	0.1-0.3	NA	10	11,820	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP121	0-0.1	No	10	11,280	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP121	0-0.1	715.84	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP121	0.1-0.2	NA	10	10,560	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP122	0-0.1	696.58	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP122	0-0.1	No	10	11,830	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP124	0-0.1	No	10	10,580	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP124	0-0.1	975.25	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP124	0.1-0.3	NA	10	10,930	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP125	0-0.1	No	10	10,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP125	0-0.1	614.93	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP125	0.1-0.6	NA	10	10,760	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13/09/2023	BH126	0.02-0.2	No	2	1,940	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	BH126	0.02-0.2	1081.34	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
13/09/2023	BH126	0.2-0.7	NA	7	7,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP127	0-0.15	No	10	10,250	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP127	0-0.1	704	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP128	0-0.1	No	10	11,920	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP128	0-0.1	635.01	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP128	0.1-0.3	NA	10	11,310	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP129	0-0.1	No	10	12,260	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP129	0-0.1	607.03	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP129	0.1-0.2	NA	10	12,370	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP130	0-0.15	No	10	12,120	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP130	0-0.1	791.73	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP131	0-0.1	No	10	10,430	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP131	0-0.1	685.76	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP132	0-0.1	No	10	10,810	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP132	0-0.1	914.66	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP133	0-0.1	No	10	10,290	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP133	0-0.1	546.94	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP133	0.1-0.2	NA	10	10,080	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/09/2023	TP134	0-0.1	No	10	10,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP134	0-0.1	554.32	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP134	0.1-0.2	NA	10	10,110	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/09/2023	TP135	0-0.1	No	10	10,320	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP135	0-0.1	733.34	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP136	0-0.15	No	10	10,540	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP136	0-0.1	826.25	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP137	0-0.1	No	10	10,370	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP137	0-0.1	700.59	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP137	0.1-0.2	NA	10	10,060	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/09/2023	TP138	0-0.1	No	10	10,190	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP138	0-0.1	668.4	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP139	0-0.1	No	10	10,310	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP139	0-0.1	668.93	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP139	0.1-0.2	NA	10	10,970	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/09/2023	TP140	0-0.1	No	10	10,070	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP140	0-0.1	644.86	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP140	0.1-0.2	NA	10	10,250	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/09/2023	TP141	0-0.1	No	10	10,960	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP141	0-0.1	546.29	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
12/09/2023	TP141	0.1-0.4	NA	10	10,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP142	0-0.1	No	10	12,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP142	0-0.1	732.78	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
7/09/2023	TP142	0.1-0.3	NA	10	11,780	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/09/2023	TP143	0-0.1	No	10	10,260	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP143	0-0.1	514.9	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP143	0.1-0.3	NA	10	10,810	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP143	0.2-0.3	754.51	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP144	0-0.05	No	10	10,230	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP144	0-0.1	580.86	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP144	0.05-0.55	No	10	12,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP144	0.2-0.3	1000.43	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP145	0-0.1	No	10	11,260	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP145	0-0.1	638.36	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP145	0.1-0.2	NA	10	11,850	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/09/2023	TP146	0-0.05	No	10	10,270	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP146	0-0.05	1040.96	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP147	0-0.1	No	10	10,830	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP147	0-0.1	627.24	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP147	0.1-0.4	NA	10	10,390	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP147	0.4-0.8	NA	10	12,170	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP147	0.6-0.7	549.41	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP148	0-0.1	No	10	10,060	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP148	0-0.1	739.81	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP148	0.1-0.4	NA	10	10,350	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP148	0.4-0.5	NA	10	10,490	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP149	0-0.1	No	10	11,210	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP149	0-0.1	721.53	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP149	0.1-0.3	NA	10	11,520	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP149	0.3-0.6	NA	10	10,810	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP149	0.5-0.6	694.43	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP150	0-0.1	No	10	11,720	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP150	0-0.1	771.92	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP150	0.1-0.2	NA	10	10,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP151	0-0.1	No	10	11,850	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP151	0-0.1	700.91	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP151	0.1-0.35	NA	10	10,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP152	0-0.1	No	10	10,760	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP152	0-0.1	826.89	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
12/09/2023	TP153	0-0.1	No	10	10,770	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP153	0-0.1	739	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
12/09/2023	TP153	0.1-0.3	NA	10	10,110	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/09/2023	TP154	0-0.1	No	10	10,670	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP154	0-0.1	941.02	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
12/09/2023	TP154	0.1-0.25	NA	10	10,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13/09/2023	BH155	0.05-0.2	No	2	1,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	BH155	0.05-0.2	861.6	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
13/09/2023	BH155	0.2-0.5	NA	3	3,720	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	BH155	0.2-0.5	736.86	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP156	0-0.1	No	10	11,280	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP156	0-0.1	645.52	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP156	0.1-0.15	NA	10	10,290	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13/09/2023	BH157	0.03-0.3	No	2	1,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	BH157	0.03-0.3	963.6	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
13/09/2023	BH158	0.04-0.3	No	1	1,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	BH158	0.04-0.3	932.77	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP159	0-0.15	No	10	10,520	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP159	0-0.1	817.12	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP159	0.15-0.3	NA	10	10,720	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/09/2023	TP159	0.3-0.5	NA	10	10,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/09/2023	TP160	0-0.1	No	10	10,410	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP160	0-0.1	804.28	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP161	0-0.1	No	10	10,720	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP161	0-0.1	732.73	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
11/09/2023	TP161	0.1-0.4	NA	10	10,320	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13/09/2023	BH162	0.04-0.2	No	1	1,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	BH162	0.04-0.2	973.2	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
13/09/2023	BH162	0.2-0.6	NA	5	5,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/09/2023	TP163	0-0.1	No	10	11,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	333165	TP163	0-0.1	759.72	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
8/09/2023	TP163	0.1-0.2	NA	10	10,290	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Concentration above the SAC **VALUE**

JKEnvironments

TABLE S6
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																			
							AGED HEAVY METALS-EILs						EILs		ESLs								
				pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium (Total)	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	8	18	104	5	77	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	Sample Depth	Sample Description	Soil Texture																				
TP101	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	40	65	21	11	36	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	1.8
TP101	0.4-0.5	Silty Clay	Fine	7.3	20	39	6	51	72	13	12	26	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP102	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	34	58	20	10	36	<1	<0.1	<25	<50	210	<100	<0.2	<0.5	<1	<1	2.9
TP102 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	6	35	60	20	10	38	<1	<0.1	<25	<50	210	<100	<0.2	<0.5	<1	<1	2.7
TP103	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	37	43	28	9	32	<1	NA	<25	56	340	160	<0.2	<0.5	<1	<1	2.3
TP104	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	34	58	21	10	39	<1	<0.1	<25	<50	140	<100	<0.2	<0.5	<1	<1	4.6
TP105	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	4	26	52	21	8	38	<1	NA	<25	<50	180	<100	<0.2	<0.5	<1	<1	4.5
TP106	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	33	72	18	11	43	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.5
TP106	0.4-0.5	Silty Clay	Fine	7.3	20	39	5	44	100	8	9	24	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP107	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	39	74	14	10	39	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
TP108	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	11	46	81	21	11	49	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP108	0.4-0.5	Silty Clay	Fine	7.3	20	39	8	46	100	9	10	30	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP109	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	8	57	140	10	13	30	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP110	0-0.1	Silty Clay	Fine	7.3	20	39	10	59	190	10	12	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP110 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	9	64	200	8	12	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP111	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	25	100	12	7	33	<1	NA	<25	<50	230	<100	<0.2	<0.5	<1	<1	0.4
TP112	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	21	320	35	10	68	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP113	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	7	47	250	9	13	53	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP113	0.9-1.0	Silty Clay	Fine	7.3	20	39	7	29	340	21	11	280	<1	NA	<25	<50	100	<100	<0.2	<0.5	<1	<1	0.93
TP114	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	8	33	170	79	15	77	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.53
TP115	0-0.1	Fill: Silty Sand	Coarse	7.3	20	39	23	27	56	32	11	140	<1	<0.1	<25	73	620	250	<0.2	<0.5	<1	<1	0.2
TP116	0-0.05	Fill: Silty Sand	Coarse	7.3	20	39	5	29	61	19	9	44	<1	NA	<25	120	720	240	<0.2	<0.5	<1	<1	0.3
TP116	0.4-0.5	Silty Clay	Fine	7.3	20	39	5	40	110	6	10	27	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP117	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	36	66	16	10	38	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP117 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	5	38	67	15	11	39	<1	<0.1	<25	<50	120	<100	<0.2	<0.5	<1	<1	0.2
TP118	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	36	62	21	10	42	<1	NA	<25	<50	140	<100	<0.2	<0.5	<1	<1	1.3
TP119	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	4	44	43	14	10	37	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP120	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	37	54	44	9	36	<1	NA	<25	<50	130	<100	<0.2	<0.5	<1	<1	2.8
TP120	0.4-0.5	Silty Clay	Fine	7.3	20	39	5	45	80	11	8	19	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP121	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	40	64	14	10	38	<1	<0.1	37	<50	170	<100	<0.2	<0.5	<1	<1	0.3
TP122	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	40	86	18	9	42	<1	NA	<25	<50	160	<100	<0.2	<0.5	<1	<1	0.4
TP123	0-0.1	Silty Clay	Fine	7.3	20	39	12	140	310	6	30	64	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP124	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	10	13	120	9	5	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP124 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	12	26	180	12	9	42	<1	<0.1	<25	<50	100	<100	<0.2	<0.5	<1	<1	<0.05
TP124 - [LAB_TRIP]	0-0.1	Laboratory Triplicate	Fine	7.3	20	39	11	17	140	11	6	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP125	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	19	31	240	21	11	54	<1	NA	<25	<50	150	<100	<0.2	<0.5	<1	<1	0.3
TP125	0.7-0.8	Silty Clay	Fine	7.3	20	39	9	61	210	10	12	22	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH126	0.02-0.2	Fill: Sandy Silty Clay	Fine	7.3	20	39	4	11	4	4	1	3	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP127	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	35	84	34	9	59	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP127	0.3-0.4	Silty Clay	Fine	7.3	20	39	6	71	120	12	11	23	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP128	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	7	45	69	11	13	30	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.06
TP129	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	53	60	18	12	35	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP130	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	9	56	80	14	15	31	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
TP130	0.4-0.5	Silty Clay	Fine	7.3	20	39	8	110	160	12	19	24	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP131	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	18	330	470	9	190	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP131	0.2-0.3	XW Andesite	Fine	7.3	20	39	NA	NA	NA	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP132	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	16	210	32	8	68	<1	<0.1	<25	<50	130	<100	<0.2	<0.5	<1	<1	<0.05
TP133	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	<4	25	220	120	9	290	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
TP134	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	5	22	160	44	8	120	<1	NA	<25	<50	100	<100	<0.2	<0.5	<1	<1	1.2
TP135	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	<4	25	190	37	9	71	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.71
TP135 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	5	31	230	32	11	90	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	1.7
TP136	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	15	95	37	7	100	<1	NA	<25	<50	230	240	<0.2	<0.5	<1	<1	0.08
TP136	0.4-0.5	XW Andesite	Coarse	7.3	20	39	5	26	350	15	11	93	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.07
TP137	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	20	210	26	9	67	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.08
TP138	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	26	260	43	11	100	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP139	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	21	210	98	8	230	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP139	0.2-0.3	Silty Clay	Fine	7.3	20	39	9	37	390	180	15	400	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP140	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	13	21	96	23	8	76	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.05
TP140	0.4-0.5	Silty Clay	Fine	7.3	20	39	5	20	480	6	12	51	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP141	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	<4	12	28	32	5	46	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP142	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	6	31	54	27	7	29	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	2
TP142	0.4-0.5	Silty Clay	Fine	7.3	20	39	7	110	150	14	16	23	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.07
TP143	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	5	20	150	15	7	40	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.56
TP143 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	6	23	140	17	7	41	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.67
TP143	0.2-0.3	Fill: Silty Clay	Fine	7.3	20	39	7	37	320	11	12	32	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.06
TP144	0-0.1	Fill: Silty Sand	Coarse	7.3	20	39	5	27	50	54	8	32	<1	NA	<25	210	1100	440	<0.2	<0.5	<1	<1	0.07
TP144	0.2-0.3	Fill: Silty Clayey Sand	Coarse	7.3	20	39	14	10	6	6	3	5	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP145	0-0.1	Fill: Silty Gravelly Clay	Fine	7.3	20	39	6	44	58	18	10	26	<1	<0.1	<25	<50	100	<100	<0.2	<0.5	<1	<1	0.06
TP145	0.4-0.5	Silty Clay	Fine	7.3	20	39	6	81	94	12	13	20	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP146	0-0.05	Fill: Gravelly Silty Clay	Fine	7.3	20	39	7	53	170	14	13	51	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP146	0.3-0.4	Silty Clay	Fine	7.3	20	39	8	21	500	4	10	25	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP147	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	<4	19	15	13	4	26	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
TP147 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	<4	14	13	12	4	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.1
TP147	0.6-0.7	Fill: Sandy Clay	Fine	7.3	20	39	7	28	130	48	18	170	<1	NA	<25	<50	160	<100	<0.2	<0.5	<1	<1	6.8
TP148	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	<4	12	14	8	3	25	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP149	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	8	19	25	48	6	57	<1	NA	<25	<50	160	260	<0.2	<0.5	<1	<1	0.1
TP149	0.5-0.6	Fill: Silty Clay	Fine	7.3	20	39	12	62	120	29	24	68	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.87
TP149	0.7-0.8	Silty Clay	Fine	7.3	20	39	9	110	180	14	22	30	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP150	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	8	46	86	17	14	36	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.4
TP151	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	7	21	11	15	6	19	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP152	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	14	34	57	14	17	44	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
TP153	0-0.1	Fill: Silty Sandy Clay	Fine	7.3	20	39	5	29	39	20	8	34	<1	NA	<25	<50	400	160	<0.2	<0.5	<1	<1	15
TP153	0.6-0.7	Silty Clay	Fine	7.3	20	39	9	120	160	11	16	23	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP154	0-0.1	Fill: Gravelly Clayey Sand	Coarse	7.3	20	39	5	18	27	11	5	21	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	1.5
TP154 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	7.3	20	39	6	22	32	13	6	24	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	1.8
BH155	0.05-0.2	Fill: Silty Sand	Coarse	7.3	20	39	10	13	12	5	2	6	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	2.1
BH155	0.2-0.5	Fill: Silty Clay	Fine	7.3	20	39	7	62	140	77	19	110	<1	NA	<25	<50	400	120	<0.2	<0.5	<1	<1	12
BH155	0.5-0.8	Silty Clay	Fine	7.3	20	39	7	110	160	13	21	25	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP156	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	8	48	140	39	14	110	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.81
BH157	0.03-0.3	Fill: Silty Clay	Fine	7.3	20	39	10	12	21	16	8	290	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
BH158	0.04-0.3	Fill: Silty Sandy Clay	Fine	7.3	20	39	10	19	230	26	9	39	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
BH158	0.3-0.6	XW Andesite	Coarse	7.3	20	39	6	15	370	3	10	33	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP159	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	<4	11	19	13	4	37	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP159 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	<4	14	19	14	4	35	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP160	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	5	19	270	69	8	77	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.3
TP160	0.2-0.3	Silty Clay	Fine	7.3	20	39	6	18	440	5	10	22	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP161	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	7	21	160	35	7	57	<1	<0.1	<25	<50	140	<100	<0.2	<0.5	<1	<1	0.87
BH162	0.04-0.2	Fill: Silty Clay	Fine	7.3	20	39	7	17	250	6	8	26	<1	NA	<25	<50	220	<100	<0.2	<0.5	<1	<1	11
BH162	1.2-1.4	Silty Clay	Fine	7.3	20	39	7	74	130	12	11	21	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.2
TP163	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	7	61	66	13	14	22	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.5
SDUP101	0-0.1	Duplicate of TP112	Fine	7.3	20	39	6	22	290	39	10	71	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.15
SDUP102	0-0.1	Duplicate of TP111	Fine	7.3	20	39	5	21	120	7	8	34	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.38
SDUP103	0-0.1	Duplicate of TP110	Fine	7.3	20	39	16	61	260	3	14	36	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP104	0-0.1	Duplicate of TP109	Fine	7.3	20	39	8	63	140	5	14	33	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP105	0-0.1	Duplicate of TP107	Fine	7.3	20	39	5	39	69	15	11	41	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.21
SDUP106	0-0.1	Duplicate of TP102	Fine	7.3	20	39	5	32	52	18	9	31	<1	NA	<25	<50	180	<100	<0.2	<0.5	<1	<1	2.1
SDUP107	0-0.05	Duplicate of TP116	Coarse	7.3	20	39	6	33	80	21	10	49	<1	NA	71	150	830	240	<0.2	<0.5	<1	<1	0.3
SDUP108	0-0.1	Duplicate of TP145	Fine	7.3	20	39	8	49	65	21	10	27	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.09
SDUP109	0-0.1	Duplicate of TP143	Fine	7.3	20	39	5	20	130	16	7	39	<1	<0.1	<25	<50	140	<100	<0.2	<0.5	<1	<1	0.76
SDUP109 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	5	20	140	16	7	40	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.71
SDUP110	0-0.1	Duplicate of TP138	Fine	7.3	20	39	7	40	460	67	16	150	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	0.08
Total Number of Samples				111	111	111	110	110	110	111	110	110	109	46	109	109	109	109	109	109	109	109	109
Maximum Value				7.3	20	39	23	140	500	470	30	400	<PQL	<PQL	71	210	1100	440	<PQL	<PQL	<PQL	<PQL	15

Concentration above the SAC — VALUE
Concentration above the PQL — **Bold**
The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below

EIL AND ESL ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Sample Description	Soil Texture	pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
TP101	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP101	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP102	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP102 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP103	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP104	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP105	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP106	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP106	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP107	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP108	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP108	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP109	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP110	0-0.1	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP110 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP111	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP112	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP113	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP113	0.9-1.0	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP114	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP115	0-0.1	Fill: Silty Sand	Coarse	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	300	2800	50	85	70	105	20
TP116	0-0.05	Fill: Silty Sand	Coarse	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	300	2800	50	85	70	105	20
TP116	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP117	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP117 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP118	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP119	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP120	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP120	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP121	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP122	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP123	0-0.1	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP124	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP124 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP124 - [LAB_TRIP]	0-0.1	Laboratory Triplicate	Fine	7.3	20	39	100	410	230	1200	280	780	--	--	--	--	--	--	--	--	--	--	--
TP125	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP125	0.7-0.8	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
BH126	0.02-0.2	Fill: Sandy Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP127	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP127	0.3-0.4	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP128	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP129	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP130	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP130	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP131	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP131	0.2-0.3	XW Andesite	Fine	7.3	20	39	--	--	--	1200	--	--	--	--	--	--	--	--	--	--	--	--	--
TP132	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP133	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP134	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP135	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP135 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP136	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP136	0.4-0.5	XW Andesite	Coarse	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	300	2800	50	85	70	105	20
TP137	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP138	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP139	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP139	0.2-0.3	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP140	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP140	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP141	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP142	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP142	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP143	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP143 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP143	0.2-0.3	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP144	0-0.1	Fill: Silty Sand	Coarse	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	300	2800	50	85	70	105	20
TP144	0.2-0.3	Fill: Silty Clayey Sand	Coarse	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	300	2800	50	85	70	105	20
TP145	0-0.1	Fill: Silty Gravelly Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP145	0.4-0.5	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP146	0-0.05	Fill: Gravelly Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP146	0.3-0.4	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP147	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP147 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP147	0.6-0.7	Fill: Sandy Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP148	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP149	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP149	0.5-0.6	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP149	0.7-0.8	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP150	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP151	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP152	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP153	0-0.1	Fill: Silty Sandy Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP153	0.6-0.7	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP154	0-0.1	Fill: Gravelly Clayey Sand	Coarse	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	300	2800	50	85	70	105	20
TP154 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	300	2800	50	85	70	105	20
BH155	0.05-0.2	Fill: Silty Sand	Coarse	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	300	2800	50	85	70	105	20
BH155	0.2-0.5	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
BH155	0.5-0.8	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP156	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
BH157	0.03-0.3	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
BH158	0.04-0.3	Fill: Silty Sandy Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
BH158	0.3-0.6	XW Andesite	Coarse	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	300	2800	50	85	70	105	20
TP159	0-0.1	Fill: Clayey Silt	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP159 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
TP160	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP160	0.2-0.3	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP161	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
BH162	0.04-0.2	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
BH162	1.2-1.4	Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
TP163	0-0.1	Fill: Silty Clay	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
SDUP101	0-0.1	Duplicate of TP112	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
SDUP102	0-0.1	Duplicate of TP111	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
SDUP103	0-0.1	Duplicate of TP110	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
SDUP104	0-0.1	Duplicate of TP109	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
SDUP105	0-0.1	Duplicate of TP107	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
SDUP106	0-0.1	Duplicate of TP102	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20
SDUP107	0-0.05	Duplicate of TP116	Coarse	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	300	2800	50	85	70	105	20
SDUP108	0-0.1	Duplicate of TP145	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
SDUP109	0-0.1	Duplicate of TP143	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
SDUP109 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	7.3	20	39	100	410	230	1200	280	780	170	180	180	120	1300	5600	65	105	125	45	20
SDUP110	0-0.1	Duplicate of TP138	Fine	7.3	20	39	100	410	230	1200	280	780	170	--	180	120	1300	5600	65	105	125	45	20

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS									PAHs		OC/OP PESTICIDES				Total PCBs	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium (Total)	Chromium VI	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled		C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	
PQL - Envirolab Services			4	0.4	1	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	NSL	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	NSL	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	NSL	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	NSL	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	**Sample Depth**	**Sample Description**																										
TP101	0-0.1	Fill: Silty Clay	6	<0.4	40	NA	65	21	0.2	11	36	19	1.8	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP101	0.4-0.5	Silty Clay	6	<0.4	51	NA	72	13	<0.1	12	26	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP102	0-0.1	Fill: Silty Clay	6	<0.4	34	NA	58	20	<0.1	10	36	34	2.9	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	110	150	260	<0.2	<0.5	<1	<1	Not Detected
TP102 - [LAB_DUP]	0-0.1	Laboratory Duplicate	6	<0.4	35	NA	60	20	<0.1	10	38	32	2.7	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	110	160	270	<0.2	<0.5	<1	<1	NA
TP103	0-0.1	Fill: Silty Clay	5	<0.4	37	NA	43	28	<0.1	9	32	24	2.3	NA	NA	NA	NA	NA	<25	<50	190	240	430	<0.2	<0.5	<1	<1	Not Detected
TP104	0-0.1	Fill: Silty Clay	5	<0.4	34	NA	58	21	<0.1	10	39	59	4.6	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP105	0-0.1	Fill: Silty Clay	4	<0.4	26	NA	52	21	<0.1	8	38	54	4.5	NA	NA	NA	NA	NA	<25	<50	<100	120	120	<0.2	<0.5	<1	<1	Not Detected
TP106	0-0.1	Fill: Silty Clay	5	<0.4	33	NA	72	18	<0.1	11	43	5.3	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP106	0.4-0.5	Silty Clay	5	<0.4	44	NA	100	8	<0.1	9	24	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP107	0-0.1	Fill: Silty Clay	6	<0.4	39	NA	74	14	<0.1	10	39	2.8	0.3	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP108	0-0.1	Fill: Silty Clay	11	<0.4	46	NA	81	21	0.2	11	49	2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP108	0.4-0.5	Silty Clay	8	<0.4	46	NA	100	9	<0.1	10	30	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP109	0-0.1	Fill: Silty Clay	8	<0.4	57	NA	140	10	<0.1	13	30	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP110	0-0.1	Silty Clay	10	<0.4	59	NA	190	10	0.1	12	30	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP110 - [LAB_DUP]	0-0.1	Laboratory Duplicate	9	<0.4	64	NA	200	8	<0.1	12	30	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP111	0-0.1	Fill: Silty Clay	5	<0.4	25	NA	100	12	<0.1	7	33	3.6	0.4	NA	NA	NA	NA	NA	<25	<50	150	130	280	<0.2	<0.5	<1	<1	Not Detected
TP112	0-0.1	Fill: Silty Clay	6	<0.4	21	NA	320	35	<0.1	10	68	1.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP113	0-0.1	Fill: Silty Clay	7	<0.4	47	NA	250	9	<0.1	13	53	2.9	0.2	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP113	0.9-1.0	Silty Clay	7	<0.4	29	NA	340	21	<0.1	11	280	14	0.93	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP114	0-0.1	Fill: Silty Clay	8	<0.4	33	NA	170	79	<0.1	15	77	6	0.53	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP115	0-0.1	Fill: Silty Sand	23	<0.4	27	NA	56	32	0.5	11	140	2.5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	340	450	790	<0.2	<0.5	<1	<1	Not Detected
TP116	0-0.05	Fill: Silty Sand	5	<0.4	29	NA	61	19	0.1	9	44	3.1	0.3	NA	NA	NA	NA	NA	<25	77	450	440	967	<0.2	<0.5	<1	<1	Not Detected
TP116	0.4-0.5	Silty Clay	5	<0.4	40	NA	110	6	<0.1	10	27	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP117	0-0.1	Fill: Silty Clay	5	<0.4	36	NA	66	16	<0.1	10	38	2.4	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP117 - [LAB_DUP]	0-0.1	Laboratory Duplicate	5	<0.4	38	NA	67	15	<0.1	11	39	2.9	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP118	0-0.1	Fill: Silty Clay	5	<0.4	36	NA	62	21	<0.1	10	42	13	1.3	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP119	0-0.1	Fill: Silty Clay	4	<0.4	44	NA	43	14	<0.1	10	37	2.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP120	0-0.1	Fill: Silty Clay	5	<0.4	37	NA	54	44	0.1	9	36	27	2.8	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP120	0.4-0.5	Silty Clay	5	<0.4	45	NA	80	11	<0.1	8	19	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP121	0-0.1	Fill: Silty Clay	5	<0.4	40	NA	64	14	<0.1	10	38	3.5	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	100	110	210	<0.2	<0.5	<1	<1	Not Detected
TP122	0-0.1	Fill: Silty Clay	6	<0.4	40	NA	86	18	<0.1	9	42	3.4	0.4	NA	NA	NA	NA	NA	<25	<50	<100	140	140	<0.2	<0.5	<1	<1	Not Detected
TP123	0-0.1	Silty Clay	12	<0.4	140	<1	310	6	<0.1	30	64	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP124	0-0.1	Fill: Silty Clay	10	<0.4	13	NA	120	9	<0.1	5	27	<0.05	<0.05	<0.1	<0.1	<0.1	0.4	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP124 - [LAB_DUP]	0-0.1	Laboratory Duplicate	12	<0.4	26	NA	180	12	<0.1	9	42	<0.05	<0.05	<0.1	<0.1	<0.1	0.5	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP124 - [LAB_TRIP]	0-0.1	Laboratory Triplicate	11	<0.4	17	NA	140	11	<0.1	6	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP125	0-0.1	Fill: Silty Clay	19	<0.4	31	NA	240	21	<0.1	11	54	2.8	0.3	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP125	0.7-0.8	Silty Clay	9	<0.4	61	NA	210	10	<0.1	12	22	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH126	0.02-0.2	Fill: Sandy Silty Clay	4	<0.4	11	NA	4	4	<0.1	1	3	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP127	0-0.1	Fill: Silty Clay	6	<0.4	35	NA	84	34	0.1	9	59	1.5	0.2	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP127	0.3-0.4	Silty Clay	6	<0.4	71	NA	120	12	<0.1	11	23	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP128	0-0.1	Fill: Silty Clay	7	<0.4	45	NA	69	11	<0.1	13	30	0.4	0.06	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP129	0-0.1	Fill: Silty Clay	6	<0.4	53	NA	60	18	0.1	12	35	2.9	0.2	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP130	0-0.1	Fill: Silty Clay	9	<0.4	56	NA	80	14	<0.1	15	31	3.4	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP130	0.4-0.5	Silty Clay	8	<0.4	110	<1	160	12	<0.1	19	24	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP131	0-0.1	Fill: Silty Clay	6	<0.4	18	NA	330	470	<0.1	9	190	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP131	0.2-0.3	XW Andesite	NA	NA	NA	NA	NA	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP132	0-0.1	Fill: Silty Clay	5	<0.4	16	NA	210	32	<0.1	8	68	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	120	120	<0.2	<0.5	<1	<1	Not Detected
TP133	0-0.1	Fill: Silty Clay	<4	0.4	25	NA	220	120	<0.1	9	290	3.8	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP134	0-0.1	Fill: Clayey Silt	5	<0.4	22	NA	160	44	<0.1	8	120	12	1.2	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP135	0-0.1	Fill: Silty Clay	<4	<0.4	25	NA	190	37	<0.1	9	71	7	0.71	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP135 - [LAB_DUP]	0-0.1	Laboratory Duplicate	5	<0.4	31	NA	230	32	<0.1	11	90	16	1.7	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP136	0-0.1	Fill: Silty Clay	5	<0.4	15	NA	95	37	<0.1	7	100	0.4	0.08	NA	NA	NA	NA	NA	<25	<50	110	200	310	<0.2	<0.5	<1	<1	Not Detected
TP136	0.4-0.5	XW Andesite	5	<0.4	26	NA	350	15	<0.1	11	93	0.4	0.07	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP137	0-0.1	Fill: Silty Clay	5	<0.4	20	NA	210	26	<0.1	9	67	0.4	0.08	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP138	0-0.1	Fill: Silty Clay	5	<0.4	26	NA	260	43	<0.1	11	100	0.2	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP139	0-0.1	Fill: Silty Clay	5	<0.4	21	NA	210	98	0.1	8	230	2.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP139	0.2-0.3	Silty Clay	9	<0.4	37	NA	390	180	0.2	15	400	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP140	0-0.1	Fill: Silty Clay	13	<0.4	21	NA	96	23	<0.1	8	76	0.05	0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP140	0.4-0.5	Silty Clay	5	<0.4	20	NA	480	6	<0.1	12	51	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP141	0-0.1	Fill: Clayey Silt	<4	<0.4	12	NA	28	32	<0.1	5	46	2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP142	0-0.1	Fill: Silty Clay	6	<0.4	31	NA	54	27	<0.1	7	29	19	2	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP142	0.4-0.5	Silty Clay	7	<0.4	110	<1	150	14	<0.1	16	23	0.07	0.07	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP143	0-0.1	Fill: Clayey Silt	5	<0.4	20	NA	150	15	<0.1	7	40	6.1	0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP143 - [LAB_DUP]	0-0.1	Laboratory Duplicate	6	<0.4	23	NA	140	17	<0.1	7	41	6.8	0.67	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP143	0.2-0.3	Fill: Silty Clay	7	<0.4	37	NA	320	11	<0.1	12	32	0.4	0.06	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP144	0-0.1	Fill: Silty Sand	5	<0.4	27	NA	50	54	<0.1	8	32	0.4	0.07	NA	NA	NA	NA	NA	<25	120	660	770	1550	<0.2	<0.5	<1	<1	Not Detected
TP144	0.2-0.3	Fill: Silty Clayey Sand	14	<0.4	10	NA	6	6	<0.1	3	5	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP145	0-0.1	Fill: Silty Gravelly Clay	6	<0.4	44	NA	58	18	<0.1	10	26	0.3	0.06	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP145	0.4-0.5	Silty Clay	6	<0.4	81	NA	94	12	<0.1	13	20	0.4	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP146	0-0.05	Fill: Gravelly Silty Clay	7	<0.4	53	NA	170	14	<0.1	13	51	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP146	0.3-0.4	Silty Clay	8	<0.4	21	NA	500	4	<0.1	10	25	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP147	0-0.1	Fill: Clayey Silt	<4	<0.4	19	NA	15	13	<0.1	4	26	2.9	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP147 - [LAB_DUP]	0-0.1	Laboratory Duplicate	<4	<0.4	14	NA	13	12	<0.1	4	25	1.5	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP147	0.6-0.7	Fill: Sandy Clay	7	<0.4	28	NA	130	48	<0.1	18	170	95	6.8	NA	NA	NA	NA	NA	<25	<50	110	<100	110	<0.2	<0.5	<1	<1	Not Detected
TP148	0-0.1	Fill: Clayey Silt	<4	<0.4	12	NA	14	8	<0.1	3	25	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP149	0-0.1	Fill: Silty Clay	8	<0.4	19	NA	25	48	<0.1	6	57	1	0.1	NA	NA	NA	NA	NA	<25	<50	<100	150	150	<0.2	<0.5	<1	<1	Not Detected
TP149	0.5-0.6	Fill: Silty Clay	12	<0.4	62	NA	120	29	<0.1	24	68	9.8	0.87	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP149	0.7-0.8	Silty Clay	9	<0.4	110	<1	180	14	<0.1	22	30	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP150	0-0.1	Fill: Silty Clay	8	<0.4	46	NA	86	17	<0.1	14	36	4.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP151	0-0.1	Fill: Silty Clay	7	<0.4	21	NA	11	15	<0.1	6	19	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP152	0-0.1	Fill: Silty Clay	14	<0.4	34	NA	57	14	<0.1	17	44	2.9	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP153	0-0.1	Fill: Silty Sandy Clay	5	<0.4	29	NA	39	20	<0.1	8	34	190	15	NA	NA	NA	NA	NA	<25	<50	270	210	480	<0.2	<0.5	<1	<1	Not Detected
TP153	0.6-0.7	Silty Clay	9	<0.4	120	<1	160	11	<0.1	16	23	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP154	0-0.1	Fill: Gravelly Clayey Sand	5	<0.4	18	NA	27	11	<0.1	5	21	15	1.5	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP154 - [LAB_DUP]	0-0.1	Laboratory Duplicate	6	<0.4	22	NA	32	13	<0.1	6	24	19	1.8	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH155	0.05-0.2	Fill: Silty Sand	10	<0.4	13	NA	12	5	<0.1	2	6	19	2.1	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH155	0.2-0.5	Fill: Silty Clay	7	<0.4	62	NA	140	77	0.2	19	110	200	12	NA	NA	NA	NA	NA	<25	<50	310	170	480	<0.2	<0.5	<1	<1	Not Detected
BH155	0.5-0.8	Silty Clay	7	<0.4	110	<1	160	13	<0.1	21	25	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP156	0-0.1	Fill: Silty Clay	8	<0.4	48	NA	140	39	<0.1	14	110	9.2	0.81	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH157	0.03-0.3	Fill: Silty Clay	10	<0.4	12	NA	21	16	<0.1	8	290	4.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH158	0.04-0.3	Fill: Silty Sandy Clay	10	<0.4	19	NA	230	26	<0.1	9	39	3.5	0.3	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH158	0.3-0.6	XW Andesite	6	<0.4	15	NA	370	3	<0.1	10	33	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP159	0-0.1	Fill: Clayey Silt	<4	<0.4	11	NA	19	13	<0.1	4	37	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP159 - [LAB_DUP]	0-0.1	Laboratory Duplicate	<4	<0.4	14	NA	19	14	<0.1	4	35	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP160	0-0.1	Fill: Silty Clay	5	<0.4	19	NA	270	69	<0.1	8	77	2.8	0.3	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP160	0.2-0.3	Silty Clay	6	<0.4	18	NA	440	5	<0.1	10	22	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP161	0-0.1	Fill: Silty Clay	7	<0.4	21	NA	160	35	<0.1	7	57	8.6	0.87	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	150	150	<0.2	<0.5	<1	<1	Not Detected
BH162	0.04-0.2	Fill: Silty Clay	7	<0.4	17	NA	250	6	<0.1	8	26	120	11	NA	NA	NA	NA	NA	<25	<50	140	130	270	<0.2	<0.5	<1	<1	Not Detected
BH162	1.2-1.4	Silty Clay	7	<0.4	74	NA	130	12	<0.1	11	21	2.8	0.2	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP163	0-0.1	Fill: Silty Clay	7	<0.4	61	NA	66	13	<0.1	14	22	5	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
SDUP101	0-0.1	Duplicate of TP112	6	<0.4	22	NA	290	39	<0.1	10	71	1.6	0.15	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP101- [LAB_DUP]	0-0.1	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP102	0-0.1	Duplicate of TP111	5	<0.4	21	NA	120	7	<0.1	8	34	3.4	0.38	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP103	0-0.1	Duplicate of TP110	16	<0.4	61	NA	260	3	<0.1	14	36	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP104	0-0.1	Duplicate of TP109	8	<0.4	63	NA	140	5	<0.1	14	33	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP105	0-0.1	Duplicate of TP107	5	<0.4	39	NA	69	15	<0.1	11	41	2.5	0.21	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP106	0-0.1	Duplicate of TP102	5	<0.4	32	NA	52	18	<0.1	9	31	23	2.1	NA	NA	NA	NA	NA	<25	<50	<100	140	140	<0.2	<0.5	<1	<1	NA
SDUP107	0-0.05	Duplicate of TP116	6	<0.4	33	NA	80	21	0.1	10	49	3.1	0.3	NA	NA	NA	NA	NA	<25	120	530	490	1140	<0.2	<0.5	<1	<1	NA
SDUP108	0-0.1	Duplicate of TP145	8	<0.4	49	NA	65	21	<0.1	10	27	0.5	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP109	0-0.1	Duplicate of TP143	5	<0.4	20	NA	130	16	<0.1	7	39	8.1	0.76	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	100	100	<0.2	<0.5	<1	<1	NA
SDUP109 - [LAB_DUP]	0-0.1	Laboratory Duplicate	5	<0.4	20	NA	140	16	<0.1	7	40	7.4	0.71	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP110	0-0.1	Duplicate of TP138	7	<0.4	40	NA	460	67	0.1	16	150	0.3	0.08	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
FCF101	-	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
Total Number of Samples			110	110	110	6	110	111	110	110	110	109	109	46	47	47	47	44	109	109	109	109	109	109	109	109	109	67
Maximum Value			23	0.4	140	<PQL	500	470	0.5	30	400	200	15	<PQL	<PQL	<PQL	0.5	<PQL	<PQL	120	660	770	1550	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the CT1	VALUE
Concentration above SCC1	VALUE
Concentration above the SCC2	VALUE
Concentration above PQL	**Bold**

TABLE S8
SOIL LABORATORY TCLP RESULTS
All data in mg/L unless stated otherwise

			Arsenic	Cadmium	Chromium	Lead	Mercury	Nickel	B(a)P
PQL - Envirolab Services			0.05	0.01	0.01	0.03	0.0005	0.02	0.001
TCLP1 - General Solid Waste			5	1	5	5	0.2	2	0.04
TCLP2 - Restricted Solid Waste			20	4	20	20	0.8	8	0.16
TCLP3 - Hazardous Waste			>20	>4	>20	>20	>0.8	>8	>0.16
Sample Reference	**Sample Depth**	**Sample Description**							
TP101	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP102	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP103	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP104	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP105	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP113	0.9-1.0	Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP118	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP120	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP131	0-0.1	Fill: Silty Clay	NA	NA	NA	**0.2**	NA	NA	NA
TP133	0-0.1	Fill: Silty Clay	NA	NA	NA	**0.04**	NA	NA	NA
TP134	0-0.1	F: Clayey Silt	NA	NA	NA	NA	NA	NA	<0.001
TP139	0-0.1	Fill: Silty Clay	NA	NA	NA	<0.03	NA	NA	NA
TP142	0-0.1	Fill: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP142 - [LAB_DUP]	0-0.1	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	<0.001
TP147	0.6-0.7	F: Sandy Clay	NA	NA	NA	NA	NA	NA	<0.001
TP149	0.5-0.6	F: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP153	0-0.1	F: Silty Sandy Clay	NA	NA	NA	NA	NA	NA	<0.001
TP154	0-0.1	F: Gravelly Clayey Sand	NA	NA	NA	NA	NA	NA	<0.001
BH155	0.05-0.2	F: Silty Sand	NA	NA	NA	NA	NA	NA	<0.001
BH155	0.2-0.5	F: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP156	0-0.1	F: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
TP161	0-0.1	F: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
BH162	0.04-0.2	F: Silty Clay	NA	NA	NA	NA	NA	NA	<0.001
Total Number of samples			0	0	0	3	0	0	20
Maximum Value			NA	NA	NA	0.20	NA	NA	<PQL

General Solid Waste	**VALUE**
Restricted Solid Waste	**VALUE**
Hazardous Waste	**VALUE**
Concentration above PQL	**Bold**

TABLE Q1
SOIL QA/QC SUMMARY

			TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	m+p-xylene	o-Xylene	Naphthalene	Acenaphthylene	Acenaph-thene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b,j+k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene
	PQL Envirolab SYD		25	50	100	100	0.2	0.5	1	2	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.05	0.1	0.1	0.1
	PQL Envirolab VIC		25	50	100	100	0.2	0.5	1	2	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.05	0.1	0.1	0.1
Intra	TP102	0-0.1	<25	<50	210	<100	<0.2	<0.5	<1	<2	<1	<0.1	0.2	0.2	0.1	3.2	0.3	7	6.8	2.1	2.1	4.8	2.9	1.9	0.3	2.6
laboratory	SDUP106	0-0.1	<25	<50	180	<100	<0.2	<0.5	<1	<2	<1	<0.1	0.1	<0.1	<0.1	1.7	0.4	4.5	4.4	1.4	1.5	3.3	2.1	1.4	0.2	1.9
duplicate	MEAN		nc	nc	195	nc	nc	nc	nc	nc	nc	nc	0.15	0.125	0.075	2.45	0.35	5.75	5.6	1.75	1.8	4.05	2.5	1.65	0.25	2.25
	RPD %		nc	nc	15%	nc	nc	nc	nc	nc	nc	nc	67%	120%	67%	61%	29%	43%	43%	40%	33%	37%	32%	30%	40%	31%
Intra	TP116	0-0.05	<25	120	720	240	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	0.6	0.6	0.2	0.2	0.5	0.3	0.2	<0.1	0.2
laboratory	SDUP107	0-0.05	71	150	830	240	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	0.6	0.5	0.2	0.2	0.5	0.3	0.2	<0.1	0.2
duplicate	MEAN		41.75	135	775	240	nc	nc	nc	nc	nc	nc	nc	nc	0.125	0.25	nc	0.6	0.55	0.2	0.2	0.5	0.3	0.2	nc	0.2
	RPD %		140%	22%	14%	0%	nc	nc	nc	nc	nc	nc	nc	nc	120%	40%	nc	0%	18%	0%	0%	0%	0%	0%	nc	0%
Intra	TP145	0-0.1	<25	<50	100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.2	0.06	<0.1	<0.1	<0.1
laboratory	SDUP108	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.2	0.09	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	75	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.15	0.15	nc	nc	nc	0.075	nc	nc	nc
	RPD %		nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	67%	nc	nc	nc	40%	nc	nc	nc
Intra	TP143	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	1.2	1.2	0.4	0.4	0.9	0.56	0.4	<0.1	0.5
laboratory	SDUP109	0-0.1	<25	<50	140	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.6	0.1	1.6	1.6	0.5	0.6	1	0.76	0.5	<0.1	0.7
duplicate	MEAN		nc	nc	95	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.55	0.075	1.4	1.4	0.45	0.5	0.95	0.66	0.45	nc	0.6
	RPD %		nc	nc	95%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	18%	67%	29%	29%	22%	40%	11%	30%	22%	nc	33%
Intra	TP138	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
laboratory	SDUP110	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.2	0.08	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.1	0.1	nc	nc	nc	0.0525	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	0%	nc	nc	nc	105%	nc	nc	nc
Inter	TP112	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.3	0.3	<0.1	0.1	0.2	0.2	<0.1	<0.1	0.1
laboratory	SDUP101	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.4	0.3	<0.1	0.1	0.2	0.15	0.2	<0.1	0.2
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.1	nc	0.35	0.3	nc	0.1	0.2	0.175	0.125	nc	0.15
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	29%	0%	nc	0%	0%	29%	120%	nc	67%
Inter	TP111	0-0.1	<25	<50	230	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	0.7	0.7	0.2	0.3	0.6	0.4	0.2	<0.1	0.3
laboratory	SDUP102	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.6	0.6	0.2	0.3	0.6	0.38	0.3	<0.1	0.3
duplicate	MEAN		nc	nc	140	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.25	nc	0.65	0.65	0.2	0.3	0.6	0.39	0.25	nc	0.3
	RPD %		nc	nc	129%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	40%	nc	15%	15%	0%	0%	0%	5%	40%	nc	0%
Inter	TP110	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
laboratory	SDUP103	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP109	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
laboratory	SDUP104	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP107	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.6	0.6	0.1	0.2	0.4	0.3	0.2	<0.1	0.2
laboratory	SDUP105	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.5	0.5	0.1	0.1	0.4	0.21	0.2	<0.1	0.2
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.2	nc	0.55	0.55	0.1	0.15	0.4	0.255	0.2	nc	0.2
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	18%	18%	0%	67%	0%	35%	0%	nc	0%
Field	TB-S101	-	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
Blank	6-8/09/2023																									
Field	TB-S102	-	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
Blank	11-13/09/2023																									
Field	FR-101	µg/L	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1
Rinsate	7/09/23																									
Field	FR-102	µg/L	<10	<50	<100	<100	<1	<1	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1
Rinsate	13/09/23																									
Trip	TS-S101		-	-	-	-	86%	86%	87%	86%	86%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	6-8/09/2023																									
Trip	TS-S102		-	-	-	-	99%	99%	99%	99%	98%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	11-13/09/2023																									

			HCB	alpha- BHC	gamma- BHC	beta- BHC	Heptachlor	delta- BHC	Aldrin	Heptachlor Epoxide	Gamma- Chlordane	alpha- chlordane	Endosulfan I	pp- DDE	Dieldrin	Endrin	pp- DDD	Endosulfan II	pp- DDT	Endrin Aldehyde	Endosulfan Sulphate	Methoxychlor
	PQL Envirolab SYD		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	PQL Envirolab VIC		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Intra	TP102	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP106	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP116	0-0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP107	0-0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP145	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP108	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP143	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP109	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP138	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP110	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP112	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP101	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP111	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP102	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP110	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP103	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP109	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP104	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP107	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP105	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB-S101	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Blank	6-8/09/2023																					
Field	TB-S102	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Blank	11-13/09/2023																					
Field	FR-101	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rinsate	7/09/23																					
Field	FR-102	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rinsate	13/09/23																					
Trip	TS-S101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	6-8/09/2023																					
Trip	TS-S102		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	11-13/09/2023																					

			Azinphos-methyl (Guthion)	Bromophos-ethyl	Chlorpyriphos	Chlorpyriphos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Total PCBS
	PQL Envirolab SYD		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	PQL Envirolab VIC		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Intra	TP102	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP106	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP116	0-0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP107	0-0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP145	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP108	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP143	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP109	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP138	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP110	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP112	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP101	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP111	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP102	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP110	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP103	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP109	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP104	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP107	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
laboratory	SDUP105	0-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB-S101	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Blank	6-8/09/2023														
Field	TB-S102	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Blank	11-13/09/2023														
Field	FR-101	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rinsate	7/09/23														
Field	FR-102	µg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rinsate	13/09/23														
Trip	TS-S101		-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	6-8/09/2023														
Trip	TS-S102		-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	11-13/09/2023														

			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	PQL Envirolab SYD		4	0.4	1	1	1	0.1	1	1
	PQL Envirolab VIC		4	0.4	1	1	1	0.1	1	1
Intra	TP102	0-0.1	6	<0.4	34	58	20	<0.1	10	36
laboratory	SDUP106	0-0.1	5	<0.4	32	52	18	<0.1	9	31
duplicate	MEAN		5.5	nc	33	55	19	nc	9.5	33.5
	RPD %		18%	nc	6%	11%	11%	nc	11%	15%
Intra	TP116	0-0.05	5	<0.4	29	61	19	0.1	9	44
laboratory	SDUP107	0-0.05	6	<0.4	33	80	21	0.1	10	49
duplicate	MEAN		5.5	nc	31	70.5	20	0.1	9.5	46.5
	RPD %		18%	nc	13%	27%	10%	0%	11%	11%
Intra	TP145	0-0.1	6	<0.4	44	58	18	<0.1	10	26
laboratory	SDUP108	0-0.1	8	<0.4	49	65	21	<0.1	10	27
duplicate	MEAN		7	nc	46.5	61.5	19.5	nc	10	26.5
	RPD %		29%	nc	11%	11%	15%	nc	0%	4%
Intra	TP143	0-0.1	5	<0.4	20	150	15	<0.1	7	40
laboratory	SDUP109	0-0.1	5	<0.4	20	130	16	<0.1	7	39
duplicate	MEAN		5	nc	20	140	15.5	nc	7	39.5
	RPD %		0%	nc	0%	14%	6%	nc	0%	3%
Intra	TP138	0-0.1	5	<0.4	26	260	43	<0.1	11	100
laboratory	SDUP110	0-0.1	7	<0.4	40	460	67	0.1	16	150
duplicate	MEAN		6	nc	33	360	55	0.075	13.5	125
	RPD %		33%	nc	42%	56%	44%	67%	37%	40%
Inter	TP112	0-0.1	6	<0.4	21	320	35	<0.1	10	68
laboratory	SDUP101	0-0.1	6	<0.4	22	290	39	<0.1	10	71
duplicate	MEAN		6	nc	21.5	305	37	nc	10	69.5
	RPD %		0%	nc	5%	10%	11%	nc	0%	4%
Inter	TP111	0-0.1	5	<0.4	25	100	12	<0.1	7	33
laboratory	SDUP102	0-0.1	5	<0.4	21	120	7	<0.1	8	34
duplicate	MEAN		5	nc	23	110	9.5	nc	7.5	33.5
	RPD %		0%	nc	17%	18%	53%	nc	13%	3%
Inter	TP110	0-0.1	10	<0.4	59	190	10	0.1	12	30
laboratory	SDUP103	0-0.1	16	<0.4	61	260	3	<0.1	14	36
duplicate	MEAN		13	nc	60	225	6.5	0.075	13	33
	RPD %		46%	nc	3%	31%	108%	67%	15%	18%
Inter	TP109	0-0.1	8	<0.4	57	140	10	<0.1	13	30
laboratory	SDUP104	0-0.1	8	<0.4	63	140	5	<0.1	14	33
duplicate	MEAN		8	nc	60	140	7.5	nc	13.5	31.5
	RPD %		0%	nc	10%	0%	67%	nc	7%	10%
Inter	TP107	0-0.1	6	<0.4	39	74	14	<0.1	10	39
laboratory	SDUP105	0-0.1	5	<0.4	39	69	15	<0.1	11	41
duplicate	MEAN		5.5	nc	39	71.5	14.5	nc	10.5	40
	RPD %		18%	nc	0%	7%	7%	nc	10%	5%
Field	TB-S101	-	<4	<0.4	3	1	2	<0.1	<1	1
Blank	6-8/09/2023									
Field	TB-S102	-	<4	<0.4	3	<1	3	<0.1	<1	1
Blank	11-13/09/2023									
Field	FR-101	µg/L	<0.05	<0.01	<0.01	0.07	<0.03	<0.0005	<0.02	<0.02
Rinsate	7/09/23									
Field	FR-102	µg/L	<0.05	<0.01	<0.01	0.07	<0.03	<0.0005	<0.02	<0.02
Rinsate	13/09/23									
Trip	TS-S101		-	-	-	-	-	-	-	-
Spike	6-8/09/2023									
Trip	TS-S102		-	-	-	-	-	-	-	-
Spike	11-13/09/2023									

Result outside of QA/QC acceptance criteria

Rinsate metals results in mg/L

PSI Summary Tables

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration
ACM:	Asbestos Containing Material
ADWG:	AustralianDrinking Water Guidelines
AF:	Asbestos Fines
ANZG	Australian and New Zealand Guidelines
B(a)P:	Benzo(a)pyrene
CEC:	Cation Exchange Capacity
CRC:	Cooperative Research Centre
CT:	Contaminant Threshold
EILs:	Ecological Investigation Levels
ESLs:	Ecological Screening Levels
FA:	Fibrous Asbestos
GIL:	Groundwater Investigation Levels
GSW:	General Solid Waste
HILs:	Health Investigation Levels
HSLs:	Health Screening Levels
HSL-SSA:	Health Screening Level-SiteSpecific Assessment
kg/L	kilograms per litre
NA:	Not Analysed
NC:	Not Calculated
NEPM:	National Environmental Protection Measure
NHMRC:	National Health and Medical Research Council
NL:	Not Limiting
NSL:	No Set Limit
OCP:	Organochlorine Pesticides
OPP:	Organophosphorus Pesticides
PAHs:	Polycyclic Aromatic Hydrocarbons
%w/w:	weight per weight
ppm:	Parts per million
PCBs:	Polychlorinated Biphenyls
PCE:	Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
pH_{KCL} :	pH of filtered 1:20, 1M KCL extract, shaken overnight
pH_{ox} :	pH of filtered 1:20 1M KCl after peroxide digestion
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
RSL:	Regional Screening Levels
RSW:	Restricted Solid Waste
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
S_{Cr}:	Chromium reducible sulfur
S_{POS}:	Peroxide oxidisable Sulfur
SSA:	Site Specific Assessment
SSHSLs:	Site Specific Health Screening Levels
TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
TB:	Trip Blank
TCA:	1,1,1 Trichloroethane (methyl chloroform)
TCE:	Trichloroethylene (Trichloroethene)
TCLP:	Toxicity Characteristics Leaching Procedure
TPA:	Total Potential Acidity, 1M KCL peroxide digest
TS:	Trip Spike
TRH:	Total Recoverable Hydrocarbons
TSA:	Total Sulfide Acidity (TPA-TAA)
UCL:	Upper Level Confidence Limit on Mean Valu
USEPA	United States Environmental Protection Agency
VOCC:	Volatile Organic Chlorinated Compounds
WHO:	World Health Organisation

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also refered to as the B(a)P Toxic Equivalence Quotient (TEQ).

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with low traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenthion, Fenitrothion, Ethion, Malathion, Methidathion and Parathion Methyl.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

JKEnvironments

TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-A: 'Residential with garden/accessible soils; children's day care centers; preschools; and primary schools'

All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			100	20	100	6000	300	40	400	7400	300	3	10	270	300	6	50	240	6	160	1	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH1	0-0.3	Silty Clay	<4	<0.4	**37**	**70**	**7**	<0.1	**10**	**22**	**0.2**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH1 - [LAB_DUP]	0-0.3	Laboratory Duplicate	<4	<0.4	**38**	**70**	**9**	<0.1	**10**	**25**	**0.55**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH1	0.8-1.0	XW Andersite	<4	<0.4	**62**	**130**	**9**	<0.1	**14**	**31**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH2	0-0.2	F: Gravelly Sandy Clay	**6**	<0.4	**38**	**200**	**8**	<0.1	**11**	**36**	**6.9**	**1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH2	0.3-0.5	Sandy Silty Clay	**6**	<0.4	**91**	**280**	**5**	<0.1	**18**	**37**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH2	0.8-1.0	Silty Clay	**6**	<0.4	**63**	**200**	**6**	<0.1	**13**	**30**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH3	0-0.1	F: Silty Clay	**7**	<0.4	**23**	**57**	**12**	<0.1	**9**	**24**	**0.64**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	0.3-0.5	F: Sandy Silty Clay	**8**	<0.4	**47**	**86**	**15**	**0.2**	**11**	**33**	**85**	**7.7**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	1.3-1.5	Sandy Silty Clay	**4**	<0.4	**72**	**120**	**9**	<0.1	**12**	**22**	**3.3**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH4	0-0.1	F: Silty Clay	**5**	<0.4	**30**	**82**	**28**	<0.1	**7**	**53**	**0.66**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**28**	**80**	**26**	<0.1	**6**	**53**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH4	0.3-0.5	Sandy Silty Clay	**7**	<0.4	**18**	**300**	**3**	<0.1	**11**	**31**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH4	0.8-1.0	XW Andersite	**6**	<0.4	**16**	**210**	**2**	<0.1	**9**	**24**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH5	0-0.1	Silty Clay	**9**	<0.4	**26**	**230**	**13**	<0.1	**9**	**30**	**2.9**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH5	0.8-1.0	Silty Clay	**4**	<0.4	**52**	**180**	**7**	<0.1	**12**	**20**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH6	0-0.1	F: Silty Clay	<4	<0.4	**22**	**220**	**17**	<0.1	**9**	**54**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH6	0.3-0.5	Sandy Silty Clay	<4	<0.4	**19**	**440**	**3**	<0.1	**10**	**51**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH6	0.8-1.0	XW Andersite	<4	<0.4	**16**	**400**	**1**	<0.1	**9**	**55**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH7	0.02-0.3	F: Gravelly Silty Sand	**7**	<0.4	**36**	**94**	**24**	<0.1	**9**	**36**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH7 - [LAB_DUP]	0.02-0.3	Laboratory Duplicate	**6**	<0.4	**51**	**100**	**20**	<0.1	**11**	**34**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH7	0.3-0.5	F: Silty Sand	**7**	<0.4	**66**	**120**	**10**	**0.6**	**13**	**29**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH8	0.02-0.2	F: Silty Sand	<4	<0.4	**13**	**12**	**7**	<0.1	**2**	**7**	**27**	**3.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH8	0.3-0.5	Sandy Silty Clay	<4	<0.4	**53**	**170**	**7**	<0.1	**15**	**42**	**3.3**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP13	0-0.1	F: Silty Clay	**5**	<0.4	**20**	**210**	**22**	**0.1**	**8**	**59**	**0.2**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP13	0.5-0.6	Silty Clay	**7**	<0.4	**24**	**490**	**4**	<0.1	**11**	**28**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP14	0-0.1	F: Silty Clay	**15**	<0.4	**31**	**99**	**120**	**0.1**	**3**	**88**	**1.1**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP14	0.4-0.5	Silty Clay	<4	<0.4	**17**	**420**	**6**	<0.1	**10**	**57**	**0.5**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP14	0.9-1.0	XW Andersite	<4	<0.4	**10**	**470**	**2**	<0.1	**10**	**47**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP15	0-0.1	F: Silty Clay	**6**	<0.4	**21**	**34**	**12**	<0.1	**7**	**30**	**0.3**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP15 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**19**	**29**	**12**	<0.1	**7**	**30**	**0.2**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
TP15	0.9-1.0	F: Sandy Silty Clay	**7**	<0.4	**24**	**32**	**14**	<0.1	**5**	**11**	**43**	**4.9**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP15	1.3-1.5	Silty Clay	<4	<0.4	**52**	**110**	**7**	**0.7**	**9**	**18**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP16	0-0.1	Silty Clay	**10**	<0.4	**56**	**190**	**25**	<0.1	**14**	**61**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
TP16	0.4-0.5	Silty Clay	**5**	<0.4	**74**	**180**	**4**	<0.1	**15**	**27**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP1	0-0.1	Duplicate of TP16	**10**	<0.4	**55**	**190**	**25**	<0.1	**14**	**66**	**1.7**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP2	0-0.1	Duplicate of TP15	**6**	<0.4	**20**	**31**	**12**	<0.1	**7**	**29**	**0.1**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP3	0-0.1	Duplicate of TP14	**11**	<0.4	**22**	**130**	**170**	<0.1	**6**	**140**	**0.86**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP4	0-0.1	Duplicate of TP13	**5**	<0.4	**16**	**160**	**24**	<0.1	**7**	**67**	**0.3**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**15**	**170**	**19**	<0.1	**7**	**60**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH4-FCF1	0-0.2	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
BH4-FCF2	0-0.2	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
Total Number of Samples			39	39	39	39	39	39	39	39	38	38	20	20	20	20	20	20	20	20	20	16
Maximum Value			15	<PQL	91	490	170	0.7	18	140	85	7.7	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**

TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

					C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					**HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL**							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH1	0-0.3	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH1 - [LAB_DUP]	0-0.3	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH1	0.8-1.0	XW Andersite	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH2	0-0.2	F: Gravelly Sandy Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH2	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.9
BH2	0.8-1.0	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.8
BH3	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH3	0.3-0.5	F: Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	**2**	0.7
BH3	1.3-1.5	Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH4	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH4	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2
BH4	0.8-1.0	XW Andersite	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.8
BH5	0-0.1	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH5	0.8-1.0	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH6	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH6	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH6	0.8-1.0	XW Andersite	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH7	0.02-0.3	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH7 - [LAB_DUP]	0.02-0.3	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH7	0.3-0.5	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2
BH8	0.02-0.2	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0
BH8	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
TP13	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
TP13	0.5-0.6	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
TP14	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
TP14	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
TP14	0.9-1.0	XW Andersite	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
TP15	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
TP15 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
TP15	0.9-1.0	F: Sandy Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
TP15	1.3-1.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
TP16	0-0.1	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
TP16	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
SDUP1	0-0.1	Duplicate of TP16	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP2	0-0.1	Duplicate of TP15	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP3	0-0.1	Duplicate of TP14	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP4	0-0.1	Duplicate of TP13	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples					38	38	38	38	38	38	38	30
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	2	3.8

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below

HSL SOIL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
BH1	0-0.3	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH1 - [LAB_DUP]	0-0.3	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH1	0.8-1.0	XW Andersite	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH2	0-0.2	F: Gravelly Sandy Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH2	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH2	0.8-1.0	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH3	0-0.1	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH3	0.3-0.5	F: Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH3	1.3-1.5	Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH4	0-0.1	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH4	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH4	0.8-1.0	XW Andersite	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH5	0-0.1	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH5	0.8-1.0	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH6	0-0.1	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH6	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH6	0.8-1.0	XW Andersite	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH7	0.02-0.3	F: Gravelly Silty Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH7 - [LAB_DUP]	0.02-0.3	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH7	0.3-0.5	F: Silty Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH8	0.02-0.2	F: Silty Sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH8	0.3-0.5	Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP13	0-0.1	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP13	0.5-0.6	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP14	0-0.1	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP14	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP14	0.9-1.0	XW Andersite	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP15	0-0.1	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP15 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP15	0.9-1.0	F: Sandy Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP15	1.3-1.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP16	0-0.1	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
TP16	0.4-0.5	Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP1	0-0.1	Duplicate of TP16	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP2	0-0.1	Duplicate of TP15	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP3	0-0.1	Duplicate of TP14	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP4	0-0.1	Duplicate of TP13	0m to <1m	Sand	45	110	0.5	160	55	40	3

TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category			**RESIDENTIAL, PARKLAND & PUBLIC OPEN SPACE**			
Sample Reference	**Sample Depth**	**Soil Texture**				
BH1	0-0.3	Coarse	<25	<50	<100	<100
BH1 - [LAB_DUP]	0-0.3	Coarse	<25	<50	<100	<100
BH1	0.8-1.0	Coarse	<25	<50	<100	<100
BH2	0-0.2	Coarse	<25	<50	<100	<100
BH2	0.3-0.5	Coarse	<25	<50	<100	<100
BH2	0.8-1.0	Coarse	<25	<50	<100	<100
BH3	0-0.1	Coarse	<25	<50	**130**	**230**
BH3	0.3-0.5	Coarse	<25	<50	**320**	**120**
BH3	1.3-1.5	Coarse	<25	<50	<100	<100
BH4	0-0.1	Coarse	<25	<50	<100	<100
BH4 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
BH4	0.3-0.5	Coarse	<25	<50	<100	<100
BH4	0.8-1.0	Coarse	<25	<50	<100	<100
BH5	0-0.1	Coarse	<25	<50	<100	<100
BH5	0.8-1.0	Coarse	<25	<50	<100	<100
BH6	0-0.1	Coarse	<25	<50	<100	<100
BH6	0.3-0.5	Coarse	<25	<50	<100	<100
BH6	0.8-1.0	Coarse	<25	<50	<100	<100
BH7	0.02-0.3	Coarse	<25	<50	<100	<100
BH7 - [LAB_DUP]	0.02-0.3	Coarse	<25	<50	<100	<100
BH7	0.3-0.5	Coarse	<25	<50	<100	<100
BH8	0.02-0.2	Coarse	<25	<50	<100	<100
BH8	0.3-0.5	Coarse	<25	<50	<100	<100
TP13	0-0.1	Coarse	<25	<50	<100	<100
TP13	0.5-0.6	Coarse	<25	<50	<100	<100
TP14	0-0.1	Coarse	<25	<50	<100	<100
TP14	0.4-0.5	Coarse	<25	<50	<100	<100
TP14	0.9-1.0	Coarse	<25	<50	<100	<100
TP15	0-0.1	Coarse	<25	<50	<100	<100
TP15 - [LAB_DUP]	0-0.1	Coarse	<25	<50	<100	<100
TP15	0.9-1.0	Coarse	<25	<50	<100	<100
TP15	1.3-1.5	Coarse	<25	<50	<100	<100
TP16	0-0.1	Coarse	<25	<50	<100	<100
TP16	0.4-0.5	Coarse	<25	<50	<100	<100
SDUP1	0-0.1	Coarse	<25	<50	<100	<100
SDUP2	0-0.1	Coarse	<25	<50	<100	<100
SDUP3	0-0.1	Coarse	<25	<50	<100	<100
SDUP4	0-0.1	Coarse	<25	<50	<100	<100
Total Number of Samples			38	38	38	38
Maximum Value			<PQL	<PQL	320	230

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	Sample Depth	Soil Texture	C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
BH1	0-0.3	Coarse	700	1000	2500	10000
BH1 - [LAB_DUP]	0-0.3	Coarse	700	1000	2500	10000
BH1	0.8-1.0	Coarse	700	1000	2500	10000
BH2	0-0.2	Coarse	700	1000	2500	10000
BH2	0.3-0.5	Coarse	700	1000	2500	10000
BH2	0.8-1.0	Coarse	700	1000	2500	10000
BH3	0-0.1	Coarse	700	1000	2500	10000
BH3	0.3-0.5	Coarse	700	1000	2500	10000
BH3	1.3-1.5	Coarse	700	1000	2500	10000
BH4	0-0.1	Coarse	700	1000	2500	10000
BH4 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
BH4	0.3-0.5	Coarse	700	1000	2500	10000
BH4	0.8-1.0	Coarse	700	1000	2500	10000
BH5	0-0.1	Coarse	700	1000	2500	10000
BH5	0.8-1.0	Coarse	700	1000	2500	10000
BH6	0-0.1	Coarse	700	1000	2500	10000
BH6	0.3-0.5	Coarse	700	1000	2500	10000
BH6	0.8-1.0	Coarse	700	1000	2500	10000
BH7	0.02-0.3	Coarse	700	1000	2500	10000
BH7 - [LAB_DUP]	0.02-0.3	Coarse	700	1000	2500	10000
BH7	0.3-0.5	Coarse	700	1000	2500	10000
BH8	0.02-0.2	Coarse	700	1000	2500	10000
BH8	0.3-0.5	Coarse	700	1000	2500	10000
TP13	0-0.1	Coarse	700	1000	2500	10000
TP13	0.5-0.6	Coarse	700	1000	2500	10000
TP14	0-0.1	Coarse	700	1000	2500	10000
TP14	0.4-0.5	Coarse	700	1000	2500	10000
TP14	0.9-1.0	Coarse	700	1000	2500	10000
TP15	0-0.1	Coarse	700	1000	2500	10000
TP15 - [LAB_DUP]	0-0.1	Coarse	700	1000	2500	10000
TP15	0.9-1.0	Coarse	700	1000	2500	10000
TP15	1.3-1.5	Coarse	700	1000	2500	10000
TP16	0-0.1	Coarse	700	1000	2500	10000
TP16	0.4-0.5	Coarse	700	1000	2500	10000
SDUP1	0-0.1	Coarse	700	1000	2500	10000
SDUP2	0-0.1	Coarse	700	1000	2500	10000
SDUP3	0-0.1	Coarse	700	1000	2500	10000
SDUP4	0-0.1	Coarse	700	1000	2500	10000

TABLE S4
SOIL LABORATORY RESULTS COMPARED T0 DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C_6-C_{10}	>C_{10}-C_{16}	>C_{16}-C_{34}	>C_{34}-C_{40}	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 -Direct contact Criteria		4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	
Site Use		**RESIDENTIAL WITH ACCESSIBLE SOIL- DIRECT SOIL CONTACT**									
Sample Reference	**Sample Depth**										
BH1	0-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH1 - [LAB_DUP]	0-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH1	0.8-1.0	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
BH2	0-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH2	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.9**
BH2	0.8-1.0	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.8**
BH3	0-0.1	<25	<50	**130**	**230**	<0.2	<0.5	<1	<1	<1	**0.6**
BH3	0.3-0.5	<25	<50	**320**	**120**	<0.2	<0.5	<1	<1	**2**	**0.7**
BH3	1.3-1.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH4	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.2**
BH4 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH4	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2**
BH4	0.8-1.0	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.8**
BH5	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH5	0.8-1.0	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH6	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH6	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH6	0.8-1.0	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH7	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH7 - [LAB_DUP]	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH7	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2**
BH8	0.02-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	0
BH8	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
TP13	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
TP13	0.5-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
TP14	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
TP14	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
TP14	0.9-1.0	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
TP15	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
TP15 - [LAB_DUP]	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
TP15	0.9-1.0	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
TP15	1.3-1.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
TP16	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
TP16	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
SDUP1	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP2	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP3	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP4	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples		38	38	38	38	38	38	38	38	38	30
Maximum Value		<PQL	<PQL	320	230	<PQL	<PQL	<PQL	<PQL	2	3.8

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**

TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HSL-A: Residential with garden/accessible soils; children's day care centers; preschools; and primary schools

FIELD DATA															LABORATORY DATA											
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample refeference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation %(w/w)	FA and AF Estimation %(w/w)
SAC			**No**					**0.01**			**0.001**			**0.001**											**0.01**	**0.001**
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		BH1	0-0.3		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/05/2023	BH2	0-0.2	No	10	12,490	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		BH2	0-0.2		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/05/2023	BH3	0-0.1	No	10	10,180	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		BH3	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/05/2023	BH3	0.1-0.3	NA	2	2,240	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/05/2023	BH3	0.3-1.1	NA	8	8,960	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		BH3	0.3-0.5		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/05/2023	BH4	0-0.2	Yes	10	10,670	48.3	7.2495	0.0679	No ACM <7mm observed	--	--	No FA observed	--	--		BH4	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		BH5	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
2/05/2023	BH6	0-0.2	No	10	10,440	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		BH6	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
2/05/2023	BH7	0.02-0.3	NA	1.7	1,880	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		BH7	0.02-0.3		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		BH8	0.02-0.2		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/05/2023	TP13	0-0.1	No	10	10,520	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		TP13	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/05/2023	TP13	0.1-0.3	NA	10	10,220	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/05/2023	TP14	0-0.2	No	10	12,310	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		TP14	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/05/2023	TP15	0-0.1	No	10	10,290	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		TP15	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
4/05/2023	TP15	0.1-0.5	NA	10	10,340	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/05/2023	TP15	0.5-1.1	NA	10	12,520	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--		TP15	0.9-1.0		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		TP16	0-0.1		No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001

Concentration above the SAC **VALUE**

JKEnvironments

TABLE S6
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																			
							AGED HEAVY METALS-EILs						EILs		ESLs								
				pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	8	18	104	5	77	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																				
BH1	0-0.3	Silty Clay	Fine	NA	NA	NA	<4	**37**	**70**	**7**	**10**	**22**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH1 - [LAB_DUP]	0-0.3	Laboratory Duplicate	Fine	NA	NA	NA	<4	**38**	**70**	**9**	**10**	**25**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH1	0.8-1.0	XW Andersite	Fine	NA	NA	NA	<4	**62**	**130**	**9**	**14**	**31**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH2	0-0.2	F: Gravelly Sandy Clay	Fine	NA	NA	NA	**6**	**38**	**200**	**8**	**11**	**36**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.69**
BH2	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	**6**	**91**	**280**	**5**	**18**	**37**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH2	0.8-1.0	Silty Clay	Fine	NA	NA	NA	**6**	**63**	**200**	**6**	**13**	**30**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH3	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**7**	**23**	**57**	**12**	**9**	**24**	<1	<0.1	<25	<50	**130**	**230**	<0.2	<0.5	<1	<1	**0.09**
BH3	0.3-0.5	F: Sandy Silty Clay	Fine	NA	NA	NA	**8**	**47**	**86**	**15**	**11**	**33**	**2**	<0.1	<25	<50	**320**	**120**	<0.2	<0.5	<1	<1	**5.4**
BH3	1.3-1.5	Sandy Silty Clay	Fine	NA	NA	NA	**4**	**72**	**120**	**9**	**12**	**22**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH4	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**5**	**30**	**82**	**28**	**7**	**53**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	**5**	**28**	**80**	**26**	**6**	**53**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.09**
BH4	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	**7**	**18**	**300**	**3**	**11**	**31**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH4	0.8-1.0	XW Andersite	Coarse	NA	NA	NA	**6**	**16**	**210**	**2**	**9**	**24**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	0-0.1	Silty Clay	Fine	NA	NA	NA	**9**	**26**	**230**	**13**	**9**	**30**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
BH5	0.8-1.0	Silty Clay	Fine	NA	NA	NA	**4**	**52**	**180**	**7**	**12**	**20**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH6	0-0.1	F: Silty Clay	Fine	NA	NA	NA	<4	**22**	**220**	**17**	**9**	**54**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH6	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	<4	**19**	**440**	**3**	**10**	**51**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH6	0.8-1.0	XW Andersite	Fine	NA	NA	NA	<4	**16**	**400**	**1**	**9**	**55**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH7	0.02-0.3	F: Gravelly Silty Sand	Coarse	NA	NA	NA	**7**	**36**	**94**	**24**	**9**	**36**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH7 - [LAB_DUP]	0.02-0.3	Laboratory Duplicate	Coarse	NA	NA	NA	**6**	**51**	**100**	**20**	**11**	**34**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH7	0.3-0.5	F: Silty Sand	Coarse	NA	NA	NA	**7**	**66**	**120**	**10**	**13**	**29**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH8	0.02-0.2	F: Silty Sand	Coarse	NA	NA	NA	<4	**13**	**12**	**7**	**2**	**7**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**2.6**
BH8	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	<4	**53**	**170**	**7**	**15**	**42**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
TP13	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**5**	**20**	**210**	**22**	**8**	**59**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.05**
TP13	0.5-0.6	Silty Clay	Fine	NA	NA	NA	**7**	**24**	**490**	**4**	**11**	**28**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP14	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**15**	**31**	**99**	**120**	**3**	**88**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
TP14	0.4-0.5	Silty Clay	Fine	NA	NA	NA	<4	**17**	**420**	**6**	**10**	**57**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.06**
TP14	0.9-1.0	XW Andersite	Coarse	NA	NA	NA	<4	**10**	**470**	**2**	**10**	**47**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP15	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**6**	**21**	**34**	**12**	**7**	**30**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.05**
TP15 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	**5**	**19**	**29**	**12**	**7**	**30**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.05**
TP15	0.9-1.0	F: Sandy Silty Clay	Fine	NA	NA	NA	**7**	**24**	**32**	**14**	**5**	**11**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**3.4**
TP15	1.3-1.5	Silty Clay	Fine	NA	NA	NA	<4	**52**	**110**	**7**	**9**	**18**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
TP16	0-0.1	Silty Clay	Fine	NA	NA	NA	**10**	**56**	**190**	**25**	**14**	**61**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
TP16	0.4-0.5	Silty Clay	Fine	NA	NA	NA	**5**	**74**	**180**	**4**	**15**	**27**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP1	0-0.1	Duplicate of TP16	Fine	NA	NA	NA	**10**	**55**	**190**	**25**	**14**	**66**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
SDUP2	0-0.1	Duplicate of TP15	Fine	NA	NA	NA	**6**	**20**	**31**	**12**	**7**	**29**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP3	0-0.1	Duplicate of TP14	Fine	NA	NA	NA	**11**	**22**	**130**	**170**	**6**	**140**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.08**
SDUP4	0-0.1	Duplicate of TP13	Fine	NA	NA	NA	**5**	**16**	**160**	**24**	**7**	**67**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.05**
SDUP4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	**5**	**15**	**170**	**19**	**7**	**60**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Number of Samples				0	0	0	39	39	39	39	39	39	38	20	38	38	38	38	38	38	38	38	38
Maximum Value				NA	NA	NA	15	91	490	170	18	140	2	<PQL	<PQL	<PQL	320	230	<PQL	<PQL	<PQL	<PQL	5.4

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below

EIL AND ESL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**	pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
BH1	0-0.3	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH1 - [LAB_DUP]	0-0.3	Laboratory Duplicate	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH1	0.8-1.0	XW Andersite	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH2	0-0.2	F: Gravelly Sandy Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH2	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH2	0.8-1.0	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH3	0-0.1	F: Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH3	0.3-0.5	F: Sandy Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH3	1.3-1.5	Sandy Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH4	0-0.1	F: Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH4	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH4	0.8-1.0	XW Andersite	Coarse	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	300	2800	50	85	70	105	20
BH5	0-0.1	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH5	0.8-1.0	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH6	0-0.1	F: Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
BH6	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH6	0.8-1.0	XW Andersite	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
BH7	0.02-0.3	F: Gravelly Silty Sand	Coarse	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	300	2800	50	85	70	105	20
BH7 - [LAB_DUP]	0.02-0.3	Laboratory Duplicate	Coarse	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	300	2800	50	85	70	105	20
BH7	0.3-0.5	F: Silty Sand	Coarse	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	300	2800	50	85	70	105	20
BH8	0.02-0.2	F: Silty Sand	Coarse	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	300	2800	50	85	70	105	20
BH8	0.3-0.5	Sandy Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
TP13	0-0.1	F: Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
TP13	0.5-0.6	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
TP14	0-0.1	F: Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
TP14	0.4-0.5	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
TP14	0.9-1.0	XW Andersite	Coarse	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	300	2800	50	85	70	105	20
TP15	0-0.1	F: Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
TP15 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
TP15	0.9-1.0	F: Sandy Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
TP15	1.3-1.5	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
TP16	0-0.1	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
TP16	0.4-0.5	Silty Clay	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
SDUP1	0-0.1	Duplicate of TP16	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
SDUP2	0-0.1	Duplicate of TP15	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
SDUP3	0-0.1	Duplicate of TP14	Fine	NA	NA	NA	100	200	80	1200	35	150	170	180	180	120	1300	5600	65	105	125	45	20
SDUP4	0-0.1	Duplicate of TP13	Fine	NA	NA	NA	100	200	80	1200	35	150	170	--	180	120	1300	5600	65	105	125	45	20
SDUP4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	100	200	80	1200	35	150	--	--	--	--	--	--	--	--	--	--	--

JKEnvironments

TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		OC/OP PESTICIDES				Total PCBs	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled		C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	**Sample Depth**	**Sample Description**																									
BH1	0-0.3	Silty Clay	<4	<0.4	**37**	**70**	**7**	<0.1	**10**	**22**	**0.2**	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH1 - [LAB_DUP]	0-0.3	Laboratory Duplicate	<4	<0.4	**38**	**70**	**9**	<0.1	**10**	**25**	**0.55**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH1	0.8-1.0	XW Andersite	<4	<0.4	**62**	**130**	**9**	<0.1	**14**	**31**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH2	0-0.2	F: Gravelly Sandy Clay	**6**	<0.4	**38**	**200**	**8**	<0.1	**11**	**36**	**6.9**	**0.69**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH2	0.3-0.5	Sandy Silty Clay	**6**	<0.4	**91**	**280**	**5**	<0.1	**18**	**37**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH2	0.8-1.0	Silty Clay	**6**	<0.4	**63**	**200**	**6**	<0.1	**13**	**30**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH3	0-0.1	F: Silty Clay	**7**	<0.4	**23**	**57**	**12**	<0.1	**9**	**24**	**0.64**	**0.09**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**180**	**180**	<0.2	<0.5	<1	<1	Not Detected
BH3	0.3-0.5	F: Sandy Silty Clay	**8**	<0.4	**47**	**86**	**15**	**0.2**	**11**	**33**	**85**	**5.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	**170**	**200**	**370**	<0.2	<0.5	<1	<1	Not Detected
BH3	1.3-1.5	Sandy Silty Clay	**4**	<0.4	**72**	**120**	**9**	<0.1	**12**	**22**	**3.3**	**0.2**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH4	0-0.1	F: Silty Clay	**5**	<0.4	**30**	**82**	**28**	<0.1	**7**	**53**	**0.66**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**28**	**80**	**26**	<0.1	**6**	**53**	**0.5**	**0.09**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH4	0.3-0.5	Sandy Silty Clay	**7**	<0.4	**18**	**300**	**3**	<0.1	**11**	**31**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH4	0.8-1.0	XW Andersite	**6**	<0.4	**16**	**210**	**2**	<0.1	**9**	**24**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH5	0-0.1	Silty Clay	**9**	<0.4	**26**	**230**	**13**	<0.1	**9**	**30**	**2.9**	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH5	0.8-1.0	Silty Clay	**4**	<0.4	**52**	**180**	**7**	<0.1	**12**	**20**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH6	0-0.1	F: Silty Clay	<4	<0.4	**22**	**220**	**17**	<0.1	**9**	**54**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH6	0.3-0.5	Sandy Silty Clay	<4	<0.4	**19**	**440**	**3**	<0.1	**10**	**51**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH6	0.8-1.0	XW Andersite	<4	<0.4	**16**	**400**	**1**	<0.1	**9**	**55**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH7	0.02-0.3	F: Gravelly Silty Sand	**7**	<0.4	**36**	**94**	**24**	<0.1	**9**	**36**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH7 - [LAB_DUP]	0.02-0.3	Laboratory Duplicate	**6**	<0.4	**51**	**100**	**20**	<0.1	**11**	**34**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH7	0.3-0.5	F: Silty Sand	**7**	<0.4	**66**	**120**	**10**	**0.6**	**13**	**29**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH8	0.02-0.2	F: Silty Sand	<4	<0.4	**13**	**12**	**7**	<0.1	**2**	**7**	**27**	**2.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH8	0.3-0.5	Sandy Silty Clay	<4	<0.4	**53**	**170**	**7**	<0.1	**15**	**42**	**3.3**	**0.3**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP13	0-0.1	F: Silty Clay	**5**	<0.4	**20**	**210**	**22**	**0.1**	**8**	**59**	**0.2**	**0.05**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP13	0.5-0.6	Silty Clay	**7**	<0.4	**24**	**490**	**4**	<0.1	**11**	**28**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP14	0-0.1	F: Silty Clay	**15**	<0.4	**31**	**99**	**120**	**0.1**	**3**	**88**	**1.1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP14	0.4-0.5	Silty Clay	<4	<0.4	**17**	**420**	**6**	<0.1	**10**	**57**	**0.5**	**0.06**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP14	0.9-1.0	XW Andersite	<4	<0.4	**10**	**470**	**2**	<0.1	**10**	**47**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP15	0-0.1	F: Silty Clay	**6**	<0.4	**21**	**34**	**12**	<0.1	**7**	**30**	**0.3**	**0.05**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP15 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**19**	**29**	**12**	<0.1	**7**	**30**	**0.2**	**0.05**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP15	0.9-1.0	F: Sandy Silty Clay	**7**	<0.4	**24**	**32**	**14**	<0.1	**5**	**11**	**43**	**3.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP15	1.3-1.5	Silty Clay	<4	<0.4	**52**	**110**	**7**	**0.7**	**9**	**18**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
TP16	0-0.1	Silty Clay	**10**	<0.4	**56**	**190**	**25**	<0.1	**14**	**61**	**1.4**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
TP16	0.4-0.5	Silty Clay	**5**	<0.4	**74**	**180**	**4**	<0.1	**15**	**27**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP1	0-0.1	Duplicate of TP16	**10**	<0.4	**55**	**190**	**25**	<0.1	**14**	**66**	**1.7**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP2	0-0.1	Duplicate of TP15	**6**	<0.4	**20**	**31**	**12**	<0.1	**7**	**29**	**0.1**	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP3	0-0.1	Duplicate of TP14	**11**	<0.4	**22**	**130**	**170**	<0.1	**6**	**140**	**0.86**	**0.08**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP4	0-0.1	Duplicate of TP13	**5**	<0.4	**16**	**160**	**24**	<0.1	**7**	**67**	**0.3**	**0.05**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP4 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**15**	**170**	**19**	<0.1	**7**	**60**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH4-FCF1	0-0.2	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
BH4-FCF2	0-0.2	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
Total Number of Samples			39	39	39	39	39	39	39	39	38	38	20	20	20	20	20	38	38	38	38	38	38	38	38	38	16
Maximum Value			15	<PQL	91	490	170	0.7	18	140	85	5.4	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	170	200	370	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the CT1	VALUE
Concentration above SCC1	VALUE
Concentration above the SCC2	VALUE
Concentration above PQL	**Bold**

TABLE S8
SOIL LABORATORY TCLP RESULTS
All data in mg/L unless stated otherwise

			Lead	B(a)P
PQL - Envirolab Services			0.03	0.001
TCLP1 - General Solid Waste			5	0.04
TCLP2 - Restricted Solid Waste			20	0.16
TCLP3 - Hazardous Waste			>20	>0.16
Sample Reference	**Sample Depth**	**Sample Description**		
BH3	0.3-0.5	F: Sandy Silty Clay	NA	**0.0086**
BH8	0.02-0.2	F: Silty Sand	NA	<0.001
TP14	0-0.1	F: Silty Clay	**0.07**	NA
TP15	0.9-1.0	F: Sandy Silty Clay	NA	<0.001
SDUP3	0-0.1	Duplicate of TP14	**0.3**	NA
Total Number of samples			2	3
Maximum Value			0.30	0.0086

General Solid Waste	**VALUE**
Restricted Solid Waste	**VALUE**
Hazardous Waste	**VALUE**
Concentration above PQL	**Bold**

JKEnvironments

TABLE Q1
SOIL QA/QC SUMMARY

			TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	m+p-xylene	o-Xylene	Naphthalene	Acenaphthylene	Acenaph-thene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b,j+k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenzo(a,h)anthra-cene	Benzo(g,h,i)perylene
	PQL Envirolab SYD		*25*	*50*	*100*	*100*	*0.2*	*0.5*	*1*	*2*	*1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.05*	*0.1*	*0.1*	*0.1*
	PQL Envirolab VIC		*25*	*50*	*100*	*100*	*0.2*	*0.5*	*1*	*2*	*1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.05*	*0.1*	*0.1*	*0.1*
Intra	TP16	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.3	<0.1	0.1	0.2	0.1	0.1	<0.1	0.1
laboratory	SDUP1	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.4	0.1	0.1	0.3	0.2	0.1	<0.1	0.2
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.35	0.35	0.075	0.1	0.25	0.15	0.1	nc	0.15
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	29%	29%	67%	0%	40%	67%	0%	nc	67%
Intra	TP15	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.2	0.05	<0.1	<0.1	<0.1
laboratory	SDUP2	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.1	0.075	nc	nc	nc	0.0375	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	67%	nc	nc	nc	67%	nc	nc	nc
Inter	TP14	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.3	0.3	0.1	0.1	<0.2	0.1	<0.1	<0.1	0.1
laboratory	SDUP3	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.2	0.08	0.1	<0.1	0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.1	nc	0.25	0.25	0.075	0.075	nc	0.09	0.075	nc	0.1
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	40%	40%	67%	67%	nc	22%	67%	nc	0%
Inter	TP13	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.2	0.05	<0.1	<0.1	<0.1
laboratory	SDUP4	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.2	0.05	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.075	0.1	nc	nc	nc	0.05	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	0%	nc	nc	nc	0%	nc	nc	nc
Field	TB-S1	-	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
Blank	2/05/23																									
Field	FR-SPT	µg/L [1]	26	<50	<100	<100	<1	<1	<1	<2	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1
Rinsate	3/05/23																									
Trip	TS-S1		-	-	-	-	97%	97%	97%	97%	98%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	2/05/23																									

			HCB	alpha- BHC	gamma- BHC	beta- BHC	Heptachlor	delta- BHC	Aldrin	Heptachlor Epoxide	Gamma- Chlordane	alpha- chlordane	Endosulfan I	pp- DDE	Dieldrin	Endrin	pp- DDD	Endosulfan II	pp- DDT	Endrin Aldehyde	Endosulfan Sulphate	Methoxychlor
	PQL Envirolab SYD		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
	PQL Envirolab VIC		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
Intra	TP16	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP1	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP15	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP2	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP14	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP3	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP13	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP4	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB-S1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blank	2/05/23																					
Field	FR-SPT	µg/L [1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rinsate	3/05/23																					
Trip	TS-S1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	2/05/23																					

			Azinphos-methyl (Guthion)	Bromophos-ethyl	Chlorpyriphos	Chlorpyriphos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Total PCBS
	PQL Envirolab SYD		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
	PQL Envirolab VIC		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
Intra	TP16	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP1	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Intra	TP15	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP2	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP14	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP3	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	TP13	0-0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP4	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB-S1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blank	2/05/23														
Field	FR-SPT	µg/L [1]	-	-	-	-	-	-	-	-	-	-	-	-	-
Rinsate	3/05/23														
Trip	TS-S1		-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	2/05/23														

			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	PQL Envirolab SYD		*4*	*0.4*	*1*	*1*	*1*	*0.1*	*1*	*1*
	PQL Envirolab VIC		*4*	*0.4*	*1*	*1*	*1*	*0.1*	*1*	*1*
Intra	TP16	0-0.1	10	<0.4	56	190	25	<0.1	14	61
laboratory	SDUP1	0-0.1	10	<0.4	55	190	25	<0.1	14	66
duplicate	MEAN		10	nc	55.5	190	25	nc	14	63.5
	RPD %		0%	nc	2%	0%	0%	nc	0%	8%
Intra	TP15	0-0.1	6	<0.4	21	34	12	<0.1	7	30
laboratory	SDUP2	0-0.1	6	<0.4	20	31	12	<0.1	7	29
duplicate	MEAN		6	nc	20.5	32.5	12	nc	7	29.5
	RPD %		0%	nc	5%	9%	0%	nc	0%	3%
Inter	TP14	0-0.1	15	<0.4	31	99	120	0.1	3	88
laboratory	SDUP3	0-0.1	11	<0.4	22	130	170	<0.1	6	140
duplicate	MEAN		13	nc	26.5	114.5	145	0.075	4.5	114
	RPD %		31%	nc	34%	27%	34%	67%	67%	46%
Inter	TP13	0-0.1	5	<0.4	20	210	22	0.1	8	59
laboratory	SDUP4	0-0.1	5	<0.4	16	160	24	<0.1	7	67
duplicate	MEAN		5	nc	18	185	23	0.075	7.5	63
	RPD %		0%	nc	22%	27%	9%	67%	13%	13%
Field	TB-S1	-	<4	<0.4	7	1	3	<0.1	5	12
Blank	2/05/23									
Field	FR-SPT	µg/L [1]	<0.05	<0.01	<0.01	0.3	<0.03	<0.0005	<0.02	0.2
Rinsate	3/05/23									
Trip	TS-S1		-	-	-	-	-	-	-	-
Spike	2/05/23									

Result outside of QA/QC acceptance criteria (yellow highlight)
1. Heavy metal concentrations reported in mg/L

Appendix D: Borehole & Test Pit Logs

DSI Borehole and Test Pit Logs

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP101** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 306.8m
Date: 6/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium plasticity, brown, trace of sand, igneous gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 11.36kg 0-0.1m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz gravel, roots and root fibres.	w≈PL			SCREEN: 10.24kg 0.1-0.2m, NO FCF RESIDUAL
			0.5							
						END OF TEST PIT AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP102** 1/1

Environmental logs are not to be used for geotechnical purposes

SDUP106: 0-0.1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 306.8m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of igneous and ironstone gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 10.33kg 0-0.1m, NO FCF SCREEN: 10.06kg 0.1-0.5m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz gravel and andesite cobbles.	w<PL			RESIDUAL
			1			END OF TEST PIT AT 1.0m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP103**
1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 307.8m
Date: 6/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of sand, igneous gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 10.51kg 0-0.1m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz and ironstone gravel, roots and root fibres.	w≈PL			SCREEN: 10.78kg 0.1-0.2m, NO FCF RESIDUAL
			0.5							
						END OF TEST PIT AT 0.75m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP104** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 307.8m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of igneous gravel, sand, plastic and glass fragments, and root fibres.	w<PL			GRASS COVER SCREEN: 10.74kg 0-0.1m, NO FCF SCREEN: 11.92kg 0.1-0.5m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of ironstone gravel and root fibres.	w<PL			PVC PIPE AT 0.4m DEPTH RESIDUAL
			1			END OF TEST PIT AT 1.0m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP105** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 308.7m
Date: 6/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium to high plasticity, brown, trace of igneous gravel, sand and root fibres.				GRASS COVER SCREEN: 11.34kg 0-0.1m, NO FCF SCREEN: 10.82kg 0.1-0.4m, NO FCF
							0.5			END OF TEST PIT AT 0.4m				PVC PIPE AT 0.3m DEPTH TEST PIT TERMINATED DUE TO SERVICES
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP106** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 309.8m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of roots and root fibres.	w<PL			GRASS COVER SCREEN: 11.20kg 0-0.1m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of root fibres.	w≈PL			SCREEN: 10.11kg 0.1-0.2m, NO FCF RESIDUAL
			0.5							
						END OF BOREHOLE AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP107**
1/1

Environmental logs are not to be used for geotechnical purposes

SDUP105: 0-0.1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 310.9m
Date: 6/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium plasticity, brown, trace of quartz gravel.	w<PL			GRASS COVER
									CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite gravel and root fibres.	w≈PL			SCREEN: 11.36kg 0-0.1m, NO FCF RESIDUAL
							0.5							
										END OF TEST PIT AT 0.7m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP108** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 312.2m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium to high plasticity, brown, trace of ironstone and andesite gravel, sand, roots and root fibres.	w<PL			GRASS COVER SCREEN: 11.80kg 0-0.1m, NO FCF
									CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of ironstone gravel.	w<PL			SCREEN: 10.50kg 0.1-0.3m, NO FCF RESIDUAL
							0.5							
										END OF BOREHOLE AT 0.8m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP109** 1/1

SDUP104: 0-0.1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 313.8m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES: ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium plasticity, red brown, trace of ironstone and andesite gravel, and root fibres.	w≈PL			GRASS COVER SCREEN: 11.27kg 0-0.1m, NO FCF SCREEN: 10.34kg 0.1-0.5m, NO FCF
							0.5			END OF BOREHOLE AT 0.5m				HP GAS PIPEWORK AT 0.5m DEPTH TEST PIT TERMINATED DUE TO UNDERGROUND SERVICES
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. TP110

1/1

SDUP103: 0-0.1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 315.6m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0		CI	Silty CLAY: medium plasticity, red brown, trace of ironstone, quartz and andesite gravel, roots and root fibres.	w<PL			GRASS COVER
										as above.	w≈PL			RESIDUAL
							0.5			END OF TEST PIT AT 0.5m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP111** 1/1

SDUP102: 0-0.1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 317.5m
Date: 6/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, low to medium plasticity, brown, trace of ironstone gravel, and root fibres.	w<PL			GRASS COVER SCREEN: 10.23kg 0-0.1m, NO FCF
			0.5		CI	Silty CLAY: medium plasticity, red brown, trace of sand, andesite gravel and cobbles, ironstone gravel, roots and root fibres.				RESIDUAL
			1 1.5 2 2.5 3 3.5			END OF TEST PIT AT 0.55m				

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP112** 1/1

Environmental logs are not to be used for geotechnical purposes

SDUP101: 0-0.1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.0m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, low to medium plasticity, brown, trace of sand, ironstone and igneous gravel, slag, ash and root fibres.	w<PL			LEAF LITTER COVER SCREEN: 10.23kg 0-0.1m, NO FCF SCREEN: 10.52kg 0.1-0.2m, NO FCF
			0.5		CL-CI	Silty CLAY: low to medium plasticity, red brown and yellow, trace of ironstone and igneous gravel, roots and root fibres.	w<PL			RESIDUAL
			1			END OF TEST PIT AT 1.0m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP113**

1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.0m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown and red brown, trace of andesite boulders and cobbles, igneous and ironstone gravel, plastic fragments, roots and root fibres.	w<PL			LEAF LITTER COVER SCREEN: 11.67kg 0-0.1m, NO FCF SCREEN: 12.20kg 0.1-0.9m, NO FCF
			0.5							
			1		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite gravel.	w<PL			RESIDUAL
					-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
			1.5			END OF TEST PIT AT 1.5m				
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP114** 1/1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 318.0m
Date: 7/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			FILL: Silty clay, medium to high plasticity, brown, trace of sand, igneous gravel, ash and root fibres.	w≈PL			GRASS COVER SCREEN: 13.33kg 0-0.1m, NO FCF
	■		■						CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, andesite gravel, roots and root fibres.	w≈PL			RESIDUAL
							0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
										END OF TEST PIT AT 0.6m				

Depth scale (m): 0, 0.5, 1, 1.5, 2, 2.5, 3, 3.5

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP115** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 314.0m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty sand, fine to medium grained, brown, trace of quartz cobble and gravel, glass fragments and root fibres.	D			GRASS AND MULCH COVER SCREEN: 10.06kg 0-0.1m, NO FCF
							0.5			FILL: Silty clay, medium plasticity, light brown and red brown, trace of volcanic breccia, igneous gravel, quartz cobbles and gravel, sand, roots and root fibres.	w<PL			SCREEN: 11.24kg 0.1-0.6m, NO FCF
							1		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite and quartz gravel, roots and root fibres.	w<PL			RESIDUAL
							1.5 2 2.5 3 3.5			END OF TEST PIT AT 1.3m				

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP116** 1/1

SDUP107: 0-0.05

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 312.7m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty sand, fine to medium grained, brown, trace of clay nodules and root fibres.	D			GRASS COVER SCREEN: 10.10kg 0-0.05m, NO FCF
					CI	Silty CLAY: medium plasticity, red brown, trace of roots and root fibres.	w<PL			RESIDUAL
			0.5							
						END OF TEST PIT AT 0.8m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP117** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 311.4m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium to high plasticity, brown, trace of quartz gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 10.72kg 0-0.15m, NO FCF
							0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz gravel.	w<PL			RESIDUAL
							1			END OF TEST PIT AT 0.7m				
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP118**

1/1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 310.0m

Date: 6/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium plasticity, brown, trace of quartz gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 11.12kg 0-0.1m, NO FCF
			0.5		CL-CI	Silty CLAY: low to medium plasticity, red brown, trace of quartz gravel and root fibres.	w≈PL			RESIDUAL
						END OF TEST PIT AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP119** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 311.0m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium to high plasticity, brown, trace of sand, igneous gravel and root fibres.	w≈PL			GRASS COVER SCREEN: 12.77kg 0-0.1m, NO FCF
							0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, quartz and ironstone gravel, roots and root fibres.	w≈PL			SCREEN: 11.50kg 0.1-0.25m, NO FCF RESIDUAL
							1 1.5 2 2.5 3 3.5			END OF TEST PIT AT 0.7m				

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP120** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 312.2m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES: ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, low to medium plasticity, brown, trace of sand, igneous gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 11.57kg 0-0.1m, NO FCF
									CI	Silty CLAY: medium plasticity, red brown, trace of quartz gravel, roots and root fibres.	w≈PL			SCREEN: 11.82kg 0.1-0.3m, NO FCF RESIDUAL
							0.5							
										END OF BOREHOLE AT 0.8m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP121** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 313.4m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Samples (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of ironstone gravel and root fibres.	w<PL			GRASS COVER SCREEN: 11.28kg 0-0.1m, NO FCF SCREEN: 10.56kg 0.1-0.2m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite and ironstone gravel, roots and root fibres.	w<PL			RESIDUAL
			0.5							
			1			END OF TEST PIT AT 0.9m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP122** 1/1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 314.9m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES: ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			FILL: Silty clay, medium plasticity, brown, trace of quartz gravel and root fibres.	w<PL			GRASS COVER
									CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz cobbles and gravel, roots and root fibres.	w<PL			SCREEN: 11.83kg 0-0.1m, NO FCF RESIDUAL
	■		■				0.5							
										END OF TEST PIT AT 0.7m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP123**

1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.7m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite gravel and root fibres.	w<PL			GRASS COVER RESIDUAL
									-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
							0.5			END OF TEST PIT AT 0.5m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. TP124 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 320.0m
Date: 8/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, low to medium plasticity, brown, trace of sand, andesite gravel and cobbles, and root fibres.				SCREEN: 10.58kg 0-0.1m, NO FCF SCREEN: 10.93kg 0.1-0.3m, NO FCF
									-	ANDESITE: grey and brown.	DW			TEMORA VOLCANICS
							0.5			END OF TEST PIT AT 0.5m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. TP125 1/1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 317.9m
Date: 8/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0 – 0.6			FILL: Silty clay, low to medium plasticity, brown, trace of sand, igneous and quartz gravel, andesite cobbles and root fibres.	w<PL w≈PL			GRASS COVER SCREEN: 10.10kg 0-0.1m, NO FCF SCREEN: 10.76kg 0.1-0.6m, NO FCF
			0.6 – 1.2		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of root fibres.	w≈PL			RESIDUAL
			1.2			END OF BOREHOLE AT 1.2m				

JKEnvironments

ENVIRONMENTAL LOG

Log No. **BH126** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** PUSHTUBE / SPIRAL AUGER **R.L. Surface:** ≈ 315.4m

Date: 13/9/23 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0		-	ASPHALT: 20mm.t				
						FILL: Sandy silty clay, low plasticity, brown and grey, with fine to coarse grained igneous gravel, trace of asphalt fragments.	w<PL			SCREEN: 1.94kg 0.02-0.2m, NO FCF
						FILL: Clayey silt, fine grained, grey, trace of igneous gravel.	w<PL			SCREEN: 7.70kg 0.2-0.7m, NO FCF
			0.5							
					CI	Silty CLAY: medium plasticity, red brown, trace of andesite gravel and root fibres.	w<PL			RESIDUAL
			1							
			1.5			END OF BOREHOLE AT 1.5m				
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP127** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 314.5m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, low to medium plasticity, brown, trace of sand, quartz gravel, volcanic breccia and root fibres.				GRASS COVER SCREEN: 10.25kg 0-0.15m, NO FCF
					CI	Silty CLAY: medium plasticity, red brown, trace of sand, quartz and andesite gravel, roots and root fibres.	w≈PL			RESIDUAL
			0.5							
						END OF TEST PIT AT 0.8m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP128** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 313.0m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES / ASS / ASB / SAL / DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of sand, quartz gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 11.92kg 0-0.1m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz boulders, cobbles and gravel, roots and root fibres.	w≈PL			SCREEN: 11.31kg 0.1-0.3m, NO FCF RESIDUAL IRRIGATION PIPE AT 0.3m
			1			END OF TEST PIT AT 0.9m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP129** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 312.0m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, low to medium plasticity, brown, trace of sand, quartz gravel, roots and root fibres.	w≈PL			GRASS COVER SCREEN: 12.26kg 0-0.1m, NO FCF
									CI	Silty CLAY: medium plasticity, red brown, trace of quartz and andesite gravel, roots and root fibres.	w≈PL			SCREEN: 12.37kg 0.1-0.2m, NO FCF RESIDUAL
							0.5							
										END OF TEST PIT AT 0.75m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

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ENVIRONMENTAL LOG

Log No. **TP130** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 314.1m

Date: 7/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium to high plasticity, brown, trace of sand, quartz and ironstone gravel, roots and root fibres.	w≈PL			GRASS COVER SCREEN: 12.12kg 0-0.15m, NO FCF
							0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, quartz and andesite gravel, roots and root fibres.	w≈PL			RESIDUAL
										END OF TEST PIT AT 0.8m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

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ENVIRONMENTAL LOG

Log No. **TP131** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 320.8m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0		-	FILL: Silty clay, medium to high plasticity, brown and red brown, trace of andesite and quartz gravel, and root fibres.	w<PL			GRASS COVER SCREEN: 10.43kg 0-0.1m, NO FCF
			0.5			Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
			1 1.5 2 2.5 3 3.5			END OF TEST PIT AT 0.7m				

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP132** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 320.6m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium to high plasticity, brown and red brown, trace of greenstone gravel and cobbles, and root fibres.	w<PL			GRASS COVER SCREEN: 10.81kg 0-0.1m, NO FCF
							0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
										END OF TEST PIT AT 0.6m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. TP133 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.9m
Date: 11/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, grey and brown, trace of igneous and quartz gravel.	w<PL			GRASS COVER SCREEN: 10.29kg 0-0.1m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of ironstone and andesite gravel and root fibres.	w<PL			SCREEN: 10.08kg 0.1-0.2m, NO FCF
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			RESIDUAL TEMORA VOLCANICS
						END OF TEST PIT AT 0.6m				

Depth scale: 0, 0.5, 1, 1.5, 2, 2.5, 3, 3.5

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP134** 1/1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 320.2m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES / ASS / ASB / SAL / DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Clayey silt, fine grained, brown, trace of root fibres.	M			GRASS COVER SCREEN: 10.40kg 0-0.1m, NO FCF SCREEN: 10.11kg 0.1-0.2m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, andesite gravel and cobbles, and root fibres.	w≈PL			RESIDUAL
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
						END OF TEST PIT AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP135**
1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.1m
Date: 11/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0			FILL: Silty clay, medium to high plasticity, red brown, trace of igneous gravel and root fibres.	w<PL			GRASS COVER SCREEN: 10.32kg 0-0.1m, NO FCF
	■		■						CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite gravel, roots and root fibres.	w<PL			RESIDUAL
							0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
										END OF TEST PIT AT 0.6m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP136** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.4m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Samples (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, low to medium plasticity, brown and grey, with sub-angular, igneous gravel, trace of asphalt fragments.	w<PL			GRASS COVER SCREEN: 10.54kg 0-0.15m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite gravel, roots and root fibres.	w<PL			RESIDUAL
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
						END OF BOREHOLE AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP137** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 318.3m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium plasticity, brown, trace of igneous gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 10.37kg 0-0.1m, NO FCF SCREEN: 10.06kg 0.1-0.2m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, andesite gravel and root fibres.	w<PL			
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, with iron indurated bands.	XW			RESIDUAL TEMORA VOLCANICS
						END OF TEST PIT AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. TP138
1/1
SDUP110: 0-0.1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 317.3m
Date: 11/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES: ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium plasticity, brown, trace of igneous gravel, roots and root fibres.	w<PL			GRASS COVER
									CI	Silty CLAY: medium plasticity, red brown and yellow brown, trace of andesite gravel and root fibres.	w<PL			SCREEN: 10.19kg 0-0.1m, NO FCF
							0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			RESIDUAL TEMORA VOLCANICS
										END OF TEST PIT AT 0.65m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP139** 1/1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 317.8m
Date: 11/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Samples (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium plasticity, brown, trace of sand, quartz gravel, glass fragments and root fibres.	W			GRASS COVER SCREEN: 10.31kg 0-0.1m, NO FCF SCREEN: 10.97kg 0.1-0.2m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite cobbles and gravel, and root fibres.	w<PL			RESIDUAL
					-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
			0.5			END OF TEST PIT AT 0.5m				REFUSAL ON ANDESITE
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP140** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 318.4m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Samples (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium plasticity, brown, trace of sand, ironstone and igneous gravel, glass fragments and root fibres.	w≈PL			GRASS COVER
							w≈PL			SCREEN: 10.07kg 0-0.1m, NO FCF
					CI-CH	FILL: Silty sandy clay, low to medium plasticity, red brown, yellow brown and grey, fine to medium grained sand, trace of igneous gravel and root fibres.	w≈PL			SCREEN: 10.25kg 0.1-0.2m, NO FCF
			0.5		-	Silty CLAY: medium to high plasticity, red brown, trace of ironstone and andesite gravel.	XW			RESIDUAL TEMORA VOLCANICS
						Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.				
			1			END OF TEST PIT AT 0.7m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP141** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.0m
Date: 12/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Samples (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Clayey silt, fine grained, brown, trace of quartz gravel, roots and root fibres.	M			GRASS COVER SCREEN: 10.96kg 0-0.1m, NO FCF SCREEN: 10.45kg 0.1-0.4m, NO FCF
			0.5		CL-CI	Silty CLAY: low to medium plasticity, brown and red brown, with fine to coarse grained andesite gravel, trace of sand, andesite cobbles, and root fibres.	w<PL			RESIDUAL
					-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
						END OF TEST PIT AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP142** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 316.3m
Date: 7/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Samples (ES / ASS / ASB / SAL / DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium plasticity, brown, trace of sand, quartz gravel, roots and root fibres.	w≈PL			GRASS COVER SCREEN: 12.10kg 0-0.1m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz and ironstone gravel, roots and root fibres.	w≈PL			SCREEN: 11.78kg 0.1-0.3m, NO FCF RESIDUAL PVC IRRIGATION PIPE AT 0.3m
			0.5							
						END OF TEST PIT AT 0.8m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP143**

1/1

SDUP109: 0-0.1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 318.9m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Clayey silt, fine grained, brown, with root fibres, trace of quartz gravel.	M			GRASS COVER
						FILL: Silty clay, medium to high plasticity, brown, trace of sand, quartz and andesite gravel, roots and root fibres.	w≈PL			SCREEN: 10.26kg 0-0.1m, NO FCF SCREEN: 10.81kg 0.1-0.3m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, andesite gravel, roots and root fibres.	w≈PL			RESIDUAL
			1			END OF TEST PIT AT 0.8m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP144** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 317.0m
Date: 8/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty sand, fine to medium grained, brown, with root fibres, trace of igneous and quartz gravel.	D			GRASS COVER SCREEN: 10.23kg 0-0.05m, NO FCF
										FILL: Silty clayey sand, fine to coarse grained, grey, trace of igneous gravel and cobbles, ironstone gravel, roots and root fibres.	D			SCREEN: 12.20kg 0.05-0.55m, NO FCF
							0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz gravel, roots and root fibres.	w<PL			RESIDUAL
							1							
										END OF TEST PIT AT 1.1m				
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP145** 1/1

SDUP108: 0-0.1

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 315.8m

Date: 8/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty gravelly clay, low to medium plasticity, brown, fine to coarse grained quartz gravel, trace of sand, igneous gravel and root fibres.	w<PL			GRASS/LEAF LITTER COVER SCREEN: 11.26kg 0-0.1m, NO FCF SCREEN: 11.85kg 0.1-0.2m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz and ironstone gravel, roots and root fibres.	w<PL			RESIDUAL
			1			END OF TEST PIT AT 0.8m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. TP146 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 317.2m
Date: 7/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Gravelly silty clay, low to medium plasticity, brown and red brown, fine to coarse grained igneous gravel, trace of sand, ironstone gravel, and root fibres.	w<PL			SCREEN: 10.27kg 0-0.05m, NO FCF
					CI	Silty CLAY: medium plasticity, red brown, with fine to coarse grained ironstone gravel, trace of sand and root fibres.	w<PL			RESIDUAL
			0.5			END OF TEST PIT AT 0.4m				REFUSAL ON INFERRED BEDROCK
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. TP147 1/1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 317.7m
Date: 8/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	0		FILL: Clayey silt, fine grained, brown, with fine to coarse grained quartz gravel, trace of quartz gravel and root fibres.	M			GRASS COVER
				M			SCREEN: 10.83kg 0-0.1m, NO FCF
			FILL: Clayey silt, fine grained, light brown, trace of root fibres.				PLASTIC SHEET AT 0.1m DEPTH
	0.5		FILL: Silty sandy clay, low to medium plasticity, grey, red brown and brown, fine to medium grained sand, trace of ceramic fragments, ash, roots and root fibres.	w≈PL			SCREEN: 10.39kg 0.1-0.4m, NO FCF SCREEN: 12.17kg 0.4-0.8m, NO FCF
	1	CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, quartz and andesite gravel, roots and root fibres.	w≈PL			RESIDUAL
	1.5		END OF TEST PIT AT 1.4m				

Samples: ES, ASS, ASB, SAL, DB; Field Tests; Graphic Log

Depth scale: 0, 0.5, 1, 1.5, 2, 2.5, 3, 3.5

JKEnvironments

ENVIRONMENTAL LOG

Log No.
TP148
1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 316.4m
Date: 8/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Clayey silt, fine grained, brown, trace of igneous and quartz gravel, glass fragments, roots and root fibres.	D			GRASS COVER SCREEN: 10.06kg 0-0.1m, NO FCF SCREEN: 10.35kg 0.1-0.4m, NO FCF
						FILL: Silty clay, medium to high plasticity, red brown, trace of igneous and quartz gravel, roots and root fibres.	w<PL			PVC IRRIGATION PIPE AT 0.3m DEPTH SCREEN: 10.49kg 0.4-0.5m, NO FCF REWORKED NATURAL CONCRETE PIPE AT 0.5m DEPTH
			0.5			END OF TEST PIT AT 0.5m				TEST PIT TERMINATED DUE TO SERVICES
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP149** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 315.2m
Date: 8/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium plasticity, brown, trace of sand, igneous and quartz gravel, plastic fragments and root fibres.	w<PL M			GRASS COVER SCREEN: 11.21kg 0-0.1m, NO FCF
						FILL: Silty sand, fine to medium grained, brown, with fine to coarse grained igneous gravel, trace of quartz gravel, roots and root fibres.	w<PL			SCREEN: 11.52kg 0.1-0.3m, NO FCF SCREEN: 10.81kg 0.3-0.6m, NO FCF
			0.5			FILL: Silty clay, low to medium plasticity, brown, trace of sand, quartz gravel and cobbles, ironstone gravel, concrete fragments, roots and root fibres.				
			1		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz gravel and root fibres.	w≈PL			RESIDUAL
						END OF TEST PIT AT 1.1m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP150** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 314.3m

Date: 8/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, medium to high plasticity, red brown and brown, trace of quartz gravel and root fibres.	w<PL			GRASS COVER SCREEN: 11.72kg 0-0.1m, NO FCF SCREEN: 10.40kg 0.1-0.2m, NO FCF
									CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz gravel and cobbles, roots and root fibres.	w≈PL			RESIDUAL
							0.5							
										END OF TEST PIT AT 0.7m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP151** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 313.0m

Date: 8/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, low to medium plasticity, brown and red brown, trace of quartz gravel and root fibres.	w<PL			GRASS COVER SCREEN: 11.85kg 0-0.1m, NO FCF SCREEN: 10.10kg 0.1-0.35m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, quartz gravel and cobbles, roots and root fibres.	w≈PL			RESIDUAL
			1			END OF TEST PIT AT 0.9m				
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP152** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 314.6m

Date: 8/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■		■		■		0		-	FILL: Silty clay, low to medium plasticity, brown and red brown, trace of andesite and quartz gravel, and root fibres.	w<PL			GRASS COVER SCREEN: 10.76kg 0-0.1m, NO FCF
										Extremely Weathered andesite: silty SAND, fine to coarse grained, grey brown.	XW			TEMORA VOLCANICS
							0.5			END OF TEST PIT AT 0.3m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP153** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 315.8m
Date: 12/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty sandy clay, low to medium plasticity, brown, fine to medium grained sand, trace of igneous and quartz gravel, asphalt fragments and root fibres.	w≈PL			MULCH COVER SCREEN: 10.77kg 0-0.1m, NO FCF SCREEN: 10.11kg 0.1-0.3m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand, quartz and andesite gravel and root fibres.	w≈PL			CEMENT PIPE AT 0.3m DEPTH - SUSPECTED ACM RESIDUAL
						END OF TEST PIT AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP154** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 316.7m

Date: 12/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Gravelly clayey sand, fine to coarse grained, brown, trace of igneous and quartz gravel and asphalt fragments.	M			MULCH COVER SCREEN: 10.67kg 0-0.1m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz gravel and cobbles.	w≈PL			SCREEN: 10.20kg 0.1-0.25m, NO FCF RESIDUAL
			0.5							
						END OF TEST PIT AT 0.8m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **BH155** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR | **Method:** PUSHTUBE / SPIRAL AUGER | **R.L. Surface:** ≈ 317.6m

Date: 13/9/23 | **Datum:** AHD

Plant Type: EZIPROBE | **Logged/Checked by:** A.D./M.D.

Groundwater Record	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	0		ASPHALT: 50mm.t				
		-	FILL: Silty sand, fine to medium grained, brown and red brown, trace of igneous gravel and asphalt fragments.	M			SCREEN: 1.80kg 0.05-0.2m, NO FCF
			FILL: Silty clay, low to medium plasticity, brown, with fine to medium grained sand, trace of igneous and quartz gravel.	w<PL			SCREEN: 3.72kg 0.2-0.5m, NO FCF
	0.5	CI	Silty CLAY: medium plasticity, red brown, trace of quartz and andesite gravel.	w<PL			RESIDUAL
	1	-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
	1.5		END OF BOREHOLE AT 1.4m				
	2						
	2.5						
	3						
	3.5						

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP156**

1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 318.3m

Date: 8/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of sandstone, quartz and igneous gravel, metal fragments, quartz cobbles and root fibres.	w≈PL			GRASS COVER SCREEN: 11.28kg 0-0.1m, NO FCF SCREEN: 10.29kg 0.1-0.25m, NO FCF
						END OF TEST PIT AT 0.35m				COPPER PIPE AT 0.2m DEPTH TEST PIT TERMINATED DUE TO SERVICES
			0.5							
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. **BH157** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 318.9m
Date: 13/9/23 **Datum:** AHD
Plant Type: EZIPROBE **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			ASPHALT: 30mm.t				
					-	FILL: Silty clay, low to medium plasticity, brown and grey, with fine to medium grained sand, trace of quartz and siltstone gravel.	w<PL			SCREEN: 1.90kg 0.03-0.3m, NO FCF
					CI	Silty CLAY: medium plasticity, red brown, trace of sand and quartz gravel.	w<PL			RESIDUAL
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
			1			END OF BOREHOLE AT 1.0m				REFUSAL
			1.5							
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. **BH158** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR
Date: 13/9/23
Plant Type: EZIPROBE
Method: PUSH TUBE / SPIRAL AUGER
Logged/Checked by: A.D./M.D.
R.L. Surface: ≈ 318.9m
Datum: AHD

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			ASPHALT: 40mm.t				
					-	FILL: Silty sandy clay, low to medium plasticity, red brown and brown, fine to medium grained sand, trace of quartz, igneous and andesite gravel, and asphalt fragments.	w<PL			SCREEN: 1.45kg 0.04-0.3m, NO FCF
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
						END OF BOREHOLE AT 0.6m				REFUSAL
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. **TP159** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 319.2m
Date: 11/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	Samples (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Clayey silt, fine grained, brown, trace of root fibres.	D			GRASS COVER
						as above, but grey.	D			SCREEN: 10.52kg 0-0.15m, NO FCF
						FILL: Silty sandy clay, low to medium plasticity, light brown, fine to medium grained sand, trace of igneous gravel and root fibres.	w<PL			SCREEN: 10.72kg 0.15-0.3m, NO FCF; SCREEN: 10.70kg 0.3-0.5m, NO FCF
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
						END OF TEST PIT AT 0.8m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. TP160 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 320.0m

Date: 11/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown and red brown, trace of andesite and igneous gravel, roots and root fibres.	w<PL			GRASS COVER
										SCREEN: 10.41kg 0-0.1m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite gravel and cobbles, roots and root fibres.	w<PL			RESIDUAL
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown, with iron indurated bands.	XW			TEMORA VOLCANICS
						END OF TEST PIT AT 0.7m				
			1							
			1.5							
			2							
			2.5							
			3							
			3.5							

JKEnvironments

ENVIRONMENTAL LOG

Log No. **TP161** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED HOSPITAL REDEVELOPMENT
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 318.6m
Date: 11/9/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES / ASS / ASB / SAL / DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, medium to high plasticity, brown, trace of sand, quartz, igneous and andesite gravel, ceramic fragments, roots and root fibres.	w<PL			GRASS COVER SCREEN: 10.72kg 0-0.1m, NO FCF SCREEN: 10.32kg 0.1-0.4m, NO FCF
			0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of andesite gravel, roots and root fibres.	w<PL			RESIDUAL
			1			END OF BOREHOLE AT 0.9m				
			1.5							
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. **BH162** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** PUSH TUBE / SPIRAL AUGER **R.L. Surface:** ≈ 318.2m

Date: 13/9/23 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			ASPHALT: 40mm.t				
					-	FILL: Silty clay, low to medium plasticity, brown, with fine to medium grained sand, trace of igneous gravel.	w<PL			SCREEN: 1.10kg 0.04-0.2m, NO FCF
			0.5			FILL: Silty sandy clay, medium plasticity, yellow brown and red brown, fine to medium grained sand, trace of andesite and ironstone gravel.	w<PL			SCREEN: 5.70kg 0.2-0.6m, NO FCF
			1		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of sand.	w<PL			RESIDUAL
			1.5			END OF BOREHOLE AT 1.4m				
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. **TP163** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED HOSPITAL REDEVELOPMENT

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** TEST PIT **R.L. Surface:** ≈ 311.7m

Date: 8/9/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./M.D.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0			FILL: Silty clay, low to medium plasticity, brown and red brown, trace of quartz gravel, roots and root fibres.	w<PL			GRASS COVER SCREEN: 11.30kg 0-0.1m, NO FCF
									CL-CI	Silty CLAY: low to medium plasticity, red brown, trace of quartz gravel, roots and root fibres.	w<PL			SCREEN: 10.29kg 0.1-0.2m, NO FCF RESIDUAL
							0.5							
										END OF TEST PIT AT 0.75m				
							1							
							1.5							
							2							
							2.5							
							3							
							3.5							

ENVIRONMENTAL LOGS EXPLANATION NOTES

INTRODUCTION

These notes have been provided to amplify the environmental report in regard to classification methods, field procedures and certain matters relating to the logging of soil and rock. Not all notes are necessarily relevant to all reports.

Where geotechnical borehole logs are utilised for environmental purpose, reference should also be made to the explanatory notes included in the geotechnical report. Environmental logs are not suitable for geotechnical purposes.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Environmental studies include gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726:2017 *'Geotechnical Site Investigations'*. In general, descriptions cover the following properties – soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geoenvironmental practice.

Soil types are described according to the predominating particle size and behaviour as set out in the attached soil classification table qualified by the grading of other particles present (eg. sandy clay) as set out below:

Soil Classification	Particle Size
Clay	< 0.002mm
Silt	0.002 to 0.075mm
Sand	0.075 to 2.36mm
Gravel	2.36 to 63mm
Cobbles	63 to 200mm
Boulders	> 200mm

Non-cohesive soils are classified on the basis of relative density, generally from the results of Standard Penetration Test (SPT) as below:

Relative Density	SPT 'N' Value (blows/300mm)
Very loose (VL)	< 4
Loose (L)	4 to 10
Medium dense (MD)	10 to 30
Dense (D)	30 to 50
Very Dense (VD)	> 50

Cohesive soils are classified on the basis of strength (consistency) either by use of a hand penetrometer, vane shear, laboratory testing and/or tactile engineering examination. The strength terms are defined as follows.

Classification	Unconfined Compressive Strength (kPa)	Indicative Undrained Shear Strength (kPa)
Very Soft (VS)	≤ 25	≤ 12
Soft (S)	> 25 and ≤ 50	> 12 and ≤ 25
Firm (F)	> 50 and ≤ 100	> 25 and ≤ 50
Stiff (St)	> 100 and ≤ 200	> 50 and ≤ 100
Very Stiff (VSt)	> 200 and ≤ 400	> 100 and ≤ 200
Hard (Hd)	> 400	> 200
Friable (Fr)	Strength not attainable – soil crumbles	

Rock types are classified by their geological names, together with descriptive terms regarding weathering, strength, defects, etc. Where relevant, further information regarding rock classification is given in the text of the report. In the Sydney Basin, 'shale' is used to describe fissile mudstone, with a weakness parallel to bedding. Rocks with alternating inter-laminations of different grain size (eg. siltstone/claystone and siltstone/fine grained sandstone) are referred to as 'laminite'.

INVESTIGATION METHODS

The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application. All methods except test pits, hand auger drilling and portable Dynamic Cone Penetrometers require the use of a mechanical rig which is commonly mounted on a truck chassis or track base.

Test Pits: These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils and 'weaker' bedrock if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for a large excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling: A borehole of 50mm to 100mm diameter is advanced by manually operated equipment. Refusal of the hand auger can occur on a variety of materials such as obstructions within any fill, tree roots, hard clay, gravel or ironstone, cobbles and boulders, and does not necessarily indicate rock level.

Continuous Spiral Flight Augers: The borehole is advanced using 75mm to 115mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling and insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the auger flights, but they can be very disturbed and layers may become mixed. Information from the auger sampling (as distinct from specific sampling by SPTs or undisturbed samples) is of limited reliability due to mixing or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table is of even lesser reliability than augering above the water table.

Rock Augering: Use can be made of a Tungsten Carbide (TC) bit for auger drilling into rock to indicate rock quality and continuity by variation in drilling resistance and from examination of recovered rock cuttings. This method of investigation is quick and relatively inexpensive but provides only an indication of the likely rock strength and predicted values may be in error by a strength order. Where rock strengths may have a significant impact on construction feasibility or costs, then further investigation by means of cored boreholes may be warranted.

Wash Boring: The borehole is usually advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be assessed from the cuttings, together with some information from "feel" and rate of penetration.

Mud Stabilised Drilling: Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilise the borehole. The term 'mud' encompasses a range of products ranging from bentonite to polymers. The mud tends to mask the cuttings and reliable identification is only possible from intermittent intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling: A continuous core sample is obtained using a diamond tipped core barrel. Provided full core recovery is achieved (which is not always possible in very low strength rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation. In rocks, NMLC or HQ triple tube core barrels, which give a core of about 50mm and 61mm diameter, respectively, is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as NO CORE. The location of NO CORE recovery is determined on site by the supervising engineer; where the location is uncertain, the loss is placed at the bottom of the drill run.

Standard Penetration Tests: Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289.6.3.1–2004 (R2016) *'Methods of Testing Soils for Engineering Purposes, Soil Strength and Consolidation Tests – Determination of the Penetration Resistance of a Soil – Standard Penetration Test (SPT)'*.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63.5kg hammer with a free fall of 760mm. It is normal for the tube to be driven in three successive 150mm increments and the 'N' value is taken as the number of blows for the last 300mm. In dense sands, very hard clays or weak rock, the full 450mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form:

- In the case where full penetration is obtained with successive blow counts for each 150mm of, say, 4, 6 and 7 blows, as

  N = 13
  4, 6, 7

- In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150mm and 30 blows for the next 40mm, as

  N > 30
  15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

A modification to the SPT is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid Cone Penetration Test (SCPT) are shown as 'N_c' on the borehole logs, together with the number of blows per 150mm penetration.

LOGS

The borehole or test pit logs presented herein are an interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment, but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The terms and symbols used in preparation of the logs are defined in the following pages.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than 'straight line' variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems:

- Although groundwater may be present, in low permeability soils it may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must be washed out of the hole or 'reverted' chemically if reliable water observations are to be made.

More reliable measurements can be made by installing standpipes which are read after the groundwater level has stabilised at intervals ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably assess the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse environmental characteristics or behaviour. If the volume and nature of fill is of importance to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing has not been undertaken to confirm the soil classification and rock strengths indicated on the environmental logs unless noted in the report.

SYMBOL LEGENDS

SOIL

- FILL
- TOPSOIL
- CLAY (CL, CI, CH)
- SILT (ML, MH)
- SAND (SP, SW)
- GRAVEL (GP, GW)
- SANDY CLAY (CL, CI, CH)
- SILTY CLAY (CL, CI, CH)
- CLAYEY SAND (SC)
- SILTY SAND (SM)
- GRAVELLY CLAY (CL, CI, CH)
- CLAYEY GRAVEL (GC)
- SANDY SILT (ML, MH)
- PEAT AND HIGHLY ORGANIC SOILS (Pt)

ROCK

- CONGLOMERATE
- SANDSTONE
- SHALE/MUDSTONE
- SILTSTONE
- CLAYSTONE
- COAL
- LAMINITE
- LIMESTONE
- PHYLLITE, SCHIST
- TUFF
- GRANITE, GABBRO
- DOLERITE, DIORITE
- BASALT, ANDESITE
- QUARTZITE

OTHER MATERIALS

- BRICKS OR PAVERS
- CONCRETE
- ASPHALTIC CONCRETE

CLASSIFICATION OF COARSE AND FINE GRAINED SOILS

Major Divisions		Group Symbol	Typical Names	Field Classification of Sand and Gravel	Laboratory Classification	
Coarse grained soil (more than 65% of soil excluding oversize fraction is greater than 0.075mm)	GRAVEL (more than half of coarse fraction is larger than 2.36mm	GW	Gravel and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 4$ $1 < C_c < 3$
		GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		GM	Gravel-silt mixtures and gravel-sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	Fines behave as silt
		GC	Gravel-clay mixtures and gravel-sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	Fines behave as clay
	SAND (more than half of coarse fraction is smaller than 2.36mm)	SW	Sand and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 6$ $1 < C_c < 3$
		SP	Sand and gravel-sand mixtures, little or no fines	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		SM	Sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	N/A
		SC	Sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
ine grained soils (more than 35% of soil excluding oversize fraction is less than 0.075mm)	SILT and CLAY (low to medium plasticity)	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity	None to low	Slow to rapid	Low	Below A line
		CL, CI	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay	Medium to high	None to slow	Medium	Above A line
		OL	Organic silt	Low to medium	Slow	Low	Below A line
	SILT and CLAY (high plasticity)	MH	Inorganic silt	Low to medium	None to slow	Low to medium	Below A line
		CH	Inorganic clay of high plasticity	High to very high	None	High	Above A line
		OH	Organic clay of medium to high plasticity, organic silt	Medium to high	None to very slow	Low to medium	Below A line
	Highly organic soil	Pt	Peat, highly organic soil	–	–	–	–

Laboratory Classification Criteria

A well graded coarse grained soil is one for which the coefficient of uniformity $Cu > 4$ and the coefficient of curvature $1 < C_c < 3$. Otherwise, the soil is poorly graded. These coefficients are given by:

$$C_U = \frac{D_{60}}{D_{10}} \quad and \quad C_C = \frac{(D_{30})^2}{D_{10}\, D_{60}}$$

Where D_{10}, D_{30} and D_{60} are those grain sizes for which 10%, 30% and 60% of the soil grains, respectively, are smaller.

NOTES:

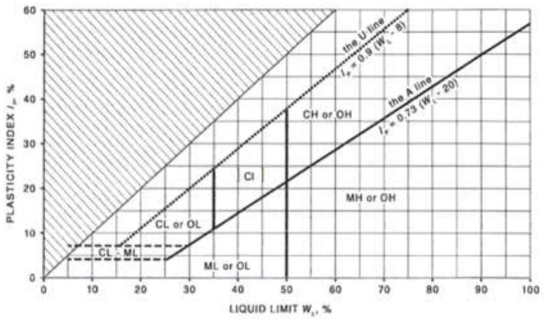
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

2 Where the grading is determined from laboratory tests, it is defined by coefficients of curvature (C_c) and uniformity (C_u) derived from the particle size distribution curve.

3 Clay soils with liquid limits > 35% and ≤ 50% may be classified as being of medium plasticity.

4 The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

Modified Casagrande Chart for Classifying Silts and Clays according to their Behaviour



LOG SYMBOLS

Log Column	Symbol	Definition
Groundwater Record	▼	Standing water level. Time delay following completion of drilling/excavation may be shown.
	C	Extent of borehole/test pit collapse shortly after drilling/excavation.
	▶	Groundwater seepage into borehole or test pit noted during drilling or excavation.
Samples	ES	Sample taken over depth indicated, for environmental analysis.
	U50	Undisturbed 50mm diameter tube sample taken over depth indicated.
	DB	Bulk disturbed sample taken over depth indicated.
	DS	Small disturbed bag sample taken over depth indicated.
	ASB	Soil sample taken over depth indicated, for asbestos analysis.
	ASS	Soil sample taken over depth indicated, for acid sulfate soil analysis.
	SAL	Soil sample taken over depth indicated, for salinity analysis.
	PFAS	Soil sample taken over depth indicated, for analysis of Per- and Polyfluoroalkyl Substances.
Field Tests	N = 17 4, 7, 10	Standard Penetration Test (SPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration. 'Refusal' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	N_c = 5 7 3R	Solid Cone Penetration Test (SCPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration for 60° solid cone driven by SPT hammer. 'R' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	VNS = 25	Vane shear reading in kPa of undrained shear strength.
	PID = 100	Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL	Moisture content estimated to be greater than plastic limit.
	$w \approx$ PL	Moisture content estimated to be approximately equal to plastic limit.
	w < PL	Moisture content estimated to be less than plastic limit.
	$w \approx$ LL	Moisture content estimated to be near liquid limit.
	w > LL	Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	D	DRY – runs freely through fingers.
	M	MOIST – does not run freely but no free water visible on soil surface.
	W	WET – free water visible on soil surface.
Strength (Consistency) Cohesive Soils	VS	VERY SOFT – unconfined compressive strength ≤ 25kPa.
	S	SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa.
	F	FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa.
	St	STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa.
	VSt	VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa.
	Hd	HARD – unconfined compressive strength > 400kPa.
	Fr	FRIABLE – strength not attainable, soil crumbles.
	( )	Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.

Log Column	Symbol	Definition	Density Index (I_D) Range (%)	SPT 'N' Value Range (Blows/300mm)
Density Index/ Relative Density (Cohesionless Soils)	VL	VERY LOOSE	≤ 15	0 – 4
	L	LOOSE	> 15 and ≤ 35	4 – 10
	MD	MEDIUM DENSE	> 35 and ≤ 65	10 – 30
	D	DENSE	> 65 and ≤ 85	30 – 50
	VD	VERY DENSE	> 85	> 50
	( )	Bracketed symbol indicates estimated density based on ease of drilling or other assessment.		

Log Column	Symbol	Definition
Hand Penetrometer Readings	300 250	Measures reading in kPa of unconfined compressive strength. Numbers indicate individual test results on representative undisturbed material unless noted otherwise.
Remarks	'V' bit	Hardened steel 'V' shaped bit.
	'TC' bit	Twin pronged tungsten carbide bit.
	T_{60}	Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers.
	Soil Origin	The geological origin of the soil can generally be described as: RESIDUAL – soil formed directly from insitu weathering of the underlying rock. No visible structure or fabric of the parent rock. EXTREMELY WEATHERED – soil formed directly from insitu weathering of the underlying rock. Material is of soil strength but retains the structure and/or fabric of the parent rock. ALLUVIAL – soil deposited by creeks and rivers. ESTUARINE – soil deposited in coastal estuaries, including sediments caused by inflowing creeks and rivers, and tidal currents. MARINE – soil deposited in a marine environment. AEOLIAN – soil carried and deposited by wind. COLLUVIAL – soil and rock debris transported downslope by gravity, with or without the assistance of flowing water. Colluvium is usually a thick deposit formed from a landslide. The description 'slopewash' is used for thinner surficial deposits. LITTORAL – beach deposited soil.

Classification of Material Weathering

<table>
<tr><th colspan="2">Term</th><th colspan="2">Abbreviation</th><th>Definition</th></tr>
<tr><td colspan="2">Residual Soil</td><td colspan="2">RS</td><td>Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.</td></tr>
<tr><td colspan="2">Extremely Weathered</td><td colspan="2">XW</td><td>Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible.</td></tr>
<tr><td>Highly Weathered</td><td rowspan="2">Distinctly Weathered (Note 1)</td><td>HW</td><td rowspan="2">DW</td><td>The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.</td></tr>
<tr><td>Moderately Weathered</td><td>MW</td><td>The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.</td></tr>
<tr><td colspan="2">Slightly Weathered</td><td colspan="2">SW</td><td>Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.</td></tr>
<tr><td colspan="2">Fresh</td><td colspan="2">FR</td><td>Rock shows no sign of decomposition of individual minerals or colour changes.</td></tr>
</table>

NOTE 1: The term 'Distinctly Weathered' is used where it is not practicable to distinguish between 'Highly Weathered' and 'Moderately Weathered' rock. 'Distinctly Weathered' is defined as follows: *'Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores'*. There is some change in rock strength.

Rock Material Strength Classification

Term	Abbreviation	Uniaxial Compressive Strength (MPa)	Guide to Strength	
			Point Load Strength Index $Is_{(50)}$ (MPa)	Field Assessment
Very Low Strength	VL	0.6 to 2	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30mm thick can be broken by finger pressure.
Low Strength	L	2 to 6	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show in the specimen with firm blows of the pick point; has dull sound under hammer. A piece of core 150mm long by 50mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium Strength	M	6 to 20	0.3 to 1	Scored with a knife; a piece of core 150mm long by 50mm diameter can be broken by hand with difficulty.
High Strength	H	20 to 60	1 to 3	A piece of core 150mm long by 50mm diameter cannot be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High Strength	VH	60 to 200	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
Extremely High Strength	EH	> 200	> 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

PSI Borehole and Test Pit Logs

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BOREHOLE LOG

Borehole No.
1
1 / 1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~309.2 m
Date: 4/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Field Tests	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION		0	CL	Silty CLAY: low plasticity, red brown, trace of fine to medium grained quartz and igneous gravel, and root fibres.	w>PL w<PL	Hd	>600 >600 >600	GRASS COVER
	N > 17 11,17/ 150mm REFUSAL	~0.75	-	Extremely Weathered andesite: sandy silty CLAY, low plasticity, red brown, fine to medium grained sand, with fine to medium grained quartz and igneous gravel. as above, but brown.	XW	Hd		TEMORA VOLCANICS VERY LOW TO LOW 'V' BIT RESISTANCE
	N=SPT 10/ 50mm REFUSAL	~2.0						
		~2.7		ANDESITE: grey, with quartz inclusions.	DW	L - M		LOW RESISTANCE
		~3.8						LOW TO MODERATE RESISTANCE GROUNDWATER MONITORING WELL INSTALLED TO 6m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 6m TO 0.12m. 2mm SAND FILTER PACK 6m TO 0.12m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
		~5.5						MODERATE RESISTANCE
		6		END OF BOREHOLE AT 6.00 m				

RL (m AHD) scale: 309, 308, 307, 306, 305, 304, 303
Depth (m) scale: 1, 2, 3, 4, 5, 6

SAMPLES: ES, U50, DB, DS

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BOREHOLE LOG

Borehole No.
2
1 / 1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~317.2 m
Date: 3/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Field Tests	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION		0		FILL: Gravelly sandy clay, low plasticity, red brown, fine to coarse grained sand, fine to medium grained igneous gravel.	w<PL			GRAVEL AND GRASS COVER SCREEN: 12.49kg 0-0.2m, NO FCF
	N = 3 1,1,2		CL	Sandy Silty CLAY: low plasticity, brown, fine to medium grained sand, trace of fine to medium grained igneous gravel.	w<PL	F - St		RESIDUAL
			CI	Silty CLAY: medium plasticity, red brown, with fine to medium grained sand, trace of fine grained igneous gravel.		(F - St)		TOO FRIABLE FOR HP TESTING
				as above, but brown.		(St - VSt)		
	N=SPT 12/ 50mm REFUSAL		-	Extremely Weathered andesite: silty clayey SAND, fine to coarse grained, brown, trace of fine grained andesite gravel.	XW	(D)		TEMORA VOLCANICS
				ANDESITE: brown, with quartz inclusions.	DW	EL - VL		VERY LOW 'V' BIT RESISTANCE
				as above, but trace of medium to high strength bands.		VL - L		VERY LOW RESISTANCE
		5.50		END OF BOREHOLE AT 5.50 m				

RL (m AHD) scale: 317, 316, 315, 314, 313, 312, 311. Depth (m) scale: 1, 2, 3, 4, 5, 6.

SAMPLES: ES, U50, DB, DS

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BOREHOLE LOG

Borehole No.
3
1 / 1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~316.3 m
Date: 4/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Field Tests	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION		0		FILL: Silty clay, medium plasticity, brown and red brown, trace of quartz, igneous and ironstone gravel and root fibres.	w>PL			GRASS COVER
	N = 7 2,5,2			FILL: Sandy silty clay, low to medium plasticity, brown and red brown, fine to coarse grained sand, trace of quartz and igneous gravel and boulders.				APPEARS MODERATELY COMPACTED SCREEN: 10.18kg 0-0.1m, NO FCF SCREEN:2.24kg 0.1-0.3m, NO FCF SCREEN: 8.96kg 0.3-1.1m, NO FCF
		1.1	CI	Sandy Silty CLAY: medium plasticity, red brown, fine to coarse grained sand, trace of fine to coarse grained quartz and igneous gravel.	w<PL	VSt - Hd	>600 >600 >600	RESIDUAL
	N = 31 4,15,16	2	-	Extremely Weathered andesite: sandy silty CLAY, low to medium plasticity, brown, fine to coarse grained sand, with fine grained igneous and quartz gravel.	XW	Hd		TEMORA VOLCANICS VERY LOW 'V' BIT RESISTANCE
		4		Extremely Weathered andesite: silty clayey SAND, fine to coarse grained, brown, low plasticity, trace of fine to medium grained quartz and igneous gravel.				LOW RESISTANCE
		4.9						MODERATE RESISTANCE
		5.2						LOW RESISTANCE
		6		END OF BOREHOLE AT 6.00 m				

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BOREHOLE LOG

Borehole No.
4

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~318.0 m
Date: 4/5/23 TO 5/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Samples (ES, U50, DB, DS)	Field Tests	RL (m AHD)	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING						FILL: Silty clay, low to medium plasticity, brown, trace of fine grained igneous gravel, and root fibres.	w>PL			GRASS COVER
					CL-CI	Sandy Silty CLAY: low to medium plasticity, brown, fine to coarse grained sand, trace of fine grained igneous and andesite gravel.	w<PL			SCREEN: 10.67kg 0-0.2m, FCF1 & FCF2
		N = 21 4,8,13			-	Extremely Weathered andesite: gravelly clayey sand, fine to coarse grained, brown, low plasticity, fine to coarse grained igneous gravel.	XW	D		TEMORA VOLCANICS
			317	1						MODERATE 'V' BIT RESISTANCE
						ANDESITE: grey.	DW	L - M		HIGH RESISTANCE
						REFER TO CORED BOREHOLE LOG				'V' BIT REFUSAL
										GROUNDWATER MONITORING WELL INSTALLED TO 6m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 6m TO 0.12m. 2mm SAND FILTER PACK 6m TO 0.12m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
			316	2						
			315	3						
			314	4						
			313	5						
			312	6						

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CORED BOREHOLE LOG

Borehole No.
4

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF	**Core Size:** NMLC	**R.L. Surface:** ~318.0 m
Date: 4/5/23 TO 5/5/23	**Inclination:** VERTICAL	**Datum:** AHD
Plant Type: HANJIN DB8	**Bearing:** N/A	**Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	RL (m AHD)	Depth (m)	CORE DESCRIPTION (Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components)	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$	Formation
			START CORING AT 1.30m				
80% RETURN	316	2	Extremely Weathered andesite: gravelly silty CLAY, low to medium plasticity, brown, fine to coarse grained andesite and ironstone gravel.	XW	Hd		Temora Volcanics
				HW	L - M		
			ANDESITE: grey and brown.	MW	M - H		
50% RETURN	315	3	Extremely Weathered andesite: gravelly silty CLAY, low to medium plasticity, brown, fine to coarse grained andesite and ironstone gravel.	XW	Hd		
			ANDESITE: fine grained, grey, trace of light grey speckles and gas bubbles.	SW	VH	7.7	
0% RETURN	314, 313	4, 5					
	312	6	END OF BOREHOLE AT 6.00 m				
	311	7					

Point load strength index scale: VL -0.1, L -0.3, M -1, H -3, VH -10, EH

SPACING (mm): 600, 200, 60, 20

DEFECT DETAILS — DESCRIPTION: Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness

Specific / General

- (1.50m) Cr, 0°, 110 mm.t
- (1.65m) J, 55°, P, Vr, Fe Sn
- (1.65m) Cr, 55°, 70 mm.t
- (1.73m) J, 70°, P, Vr, Fe Sn
- (1.76m) J, 60°, P, R, Fe Sn
- (1.80m) J, 50°, P, Vr, Fe Sn
- (1.80m) J x3, P, Vr, Fe Sn
- (1.86m) J, 60°, P, R, Fe Sn
- (1.87m) J, 80°, P, S, Clay Vn
- (1.92m) J, 65°, P, Vr, Fe Sn
- (2.00m) J, 50°, P, Vr, Fe Sn
- (2.10m) Cr, 50°, 180 mm.t
- (2.21m) J, 60°, P, Vr, Fe Sn
- (2.27m) J, 60°, P, Vr, Fe Sn
- (2.28m) J, 80°, P, Vr, Fe Sn
- (2.33m) J, 80°, P, R, Fe Sn
- (2.34m) Cr, 80°, 10 mm.t
- (2.38m) Cr, 80°, 20 mm.t
- (2.45m) Cr, 80°, 90 mm.t
- (2.70m) Cr, 20°, 100 mm.t
- (2.83m) J, 70°, P, Vr, Fe Sn
- (3.00m) J, 50°, P, R, Fe Sn, & Clay, Vn
- (3.10m) Be, 5°, Cr, S, Clay FILLED, 2 mm.t
- (3.16m) J, 25°, Cr, S, Clay Vn
- (3.22m) Be, 5°, Cr, R, Cn
- (3.33m) J, 55°, P, R, Fe Sn
- (3.50m) J, 55°, P, R, Fe Sn
- (3.65m) J, 45°, St, Vr, Fe Sn
- (3.68m) J, 10°, Ir, Vr, Fe Sn
- (3.80m) Cr, 15°, 100 mm.t, associated with J at 4.38m
- (3.88m) J, 70°, P, S, Clay Vn
- (3.89m) J, 15°, P, Vr, Cn
- (3.95m) J, 10°, P, S, Clay Vn
- (4.00m) Ji, 70°, P, Vr, Fe Sn
- (4.04m) J, 50°, P, Vr, Fe Sn
- (4.10m) Cr, 50°, 100 mm.t
- (4.16m) J, 50°, P, R, Fe Sn
- (4.23m) Be, 10°, P, S, Clay FILLED, 2 mm.t
- (4.25m) J, 60°, P, Vr, Fe Sn
- (4.40m) J, 70°, P, S, Clay Vn
- (4.47m) Be, 10°, P, S, Clay Vn
- (4.51m) J, 85°, P, S, Clay Vn
- (4.53m) J, 80°, P, S, Clay Vn
- (4.65m) J, 50°, P, Vr, Fe Sn
- (4.72m) Be, 85°, P, S, Clay Vn
- (4.80m) J, 20°, St, Vr, Fe Sn
- (4.83m) J, 80°, P, R, Fe Sn
- (5.06m) J, 10°, P, R, Fe Sn
- (5.12m) J, 50°, P, R, Fe Sn
- (5.27m) J, 30°, St, Vr, Fe Sn
- (5.48m) J, 50°, P, R, Clay Vn
- (5.56m) Be, 80°, P, S, Clay FILLED, 5 mm.t
- (5.61m) J, 60°, P, Vr, Fe Sn
- (5.76m) Cr, 50°, 5 mm.t
- (5.77m) CS, 50°, 5 mm.t
- (5.85m) J, 40°, P, Vr, Fe Sn
- (5.93m) J, 20°, P, R, Fe Sn

FRACTURES NOT MARKED ARE CONSIDERED TO BE DRILLING AND HANDLING BREAKS

JKGeotechnics

BOREHOLE LOG

Borehole No.
5

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~318.2 m
Date: 3/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Field Tests	RL (m AHD)	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION		318		CL-CI	Silty CLAY: low to medium plasticity, brown, trace of fine to medium grained igneous gravel, and root fibres.	w>PL	(St)		GRASS COVER RESIDUAL
	N = 12 3,6,6	317	1	CI	Silty CLAY: medium plasticity, red brown, trace of fine to medium grained andesite gravel.	w~PL	Hd		
				-	Extremely Weathered andesite: silty clayey SAND, fine to coarse grained, brown, trace of fine grained igneous gravel.	XW	(D)		TEMORA VOLCANICS
	N=SPT 5/ 0mm REFUSAL	316 315	2 3		ANDESITE: brown and grey, fine to medium grained, trace of fine to medium grained quartz gravel, trace of high strength bands.	DW	L - M		LOW TO MODERATE 'V' BIT RESISTANCE
		314 313 312	4 5 6		END OF BOREHOLE AT 3.30 m				'V' BIT REFUSAL

JKGeotechnics

BOREHOLE LOG

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~319.1 m
Date: 2/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Field Tests	RL (m AHD)	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION		319	0		FILL: Silty clay, low to medium plasticity, red brown, with fine to coarse grained quartz and igneous gravel, trace of root fibres.	w>PL			GRASS COVER
				CL-CI	Sandy Silty CLAY: low to medium plasticity, brown, fine to coarse grained sand, trace of fine to medium grained granite gravel.	w<PL	(VSt - Hd)		SCREEN: 10.44kg 0-0.2m, NO FCF RESIDUAL
	N > 14 11,14/ 100mm REFUSAL			-	Extremely Weathered andesite: gravelly sandy SILT, low plasticity, brown and light brown, fine to coarse grained igneous gravel.	XW	(Hd)		TEMORA VOLCANICS
		318	1		ANDESITE: grey.	DW	H		HIGH 'V' BIT RESISTANCE 'V' BIT REFUSAL
					END OF BOREHOLE AT 1.30 m				GROUNDWATER MONITORING WELL INSTALLED TO 1.3m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 1.3m TO 0.12m. 2mm SAND FILTER PACK 1.3m TO 0.12m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
		317	2						
		316	3						
		315	4						
		314	5						
		313	6						

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BOREHOLE LOG

Borehole No.
7
1 / 2

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~318.8 m
Date: 2/5/23 TO 3/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Field Tests	RL (m AHD)	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING				-	ASPHALTIC CONCRETE: 20mm.t	M			SCREEN: 1.88kg 0.02-0.3m, NO FCF
					FILL: Gravelly silty sand, fine to medium grained, brown, fine to coarse grained quartz and igneous gravel.				POSSIBLY NATURAL
	N > 11 13,11/ 80mm REFUSAL	318		-	FILL: Silty sand, fine to coarse grained , red brown, trace of fine grained quartz gravel.	XW	(Hd)		TEMORA VOLCANICS
			1		Extremely Weathered andesite: gravelly sandy SILT, low plasticity, brown, fine to coarse grained sand, fine grained igneous gravel.				VERY LOW 'V' BIT RESISTANCE
		317	2		REFER TO CORED BOREHOLE LOG				MODERATE TO HIGH RESISTANCE
		316	3						
		315	4						
		314	5						
		313	6						
		312							

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CORED BOREHOLE LOG

Borehole No.
7

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF	**Core Size:** NMLC	**R.L. Surface:** ~318.8 m
Date: 2/5/23 TO 3/5/23	**Inclination:** VERTICAL	**Datum:** AHD
Plant Type: HANJIN DB8	**Bearing:** N/A	**Logged/Checked By:** C.S.Y./O.F.

Water Loss\Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION: Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_s(50)$ (VL 0.1, L 0.3, M 1, H 3, VH 10, EH)	SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION — Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness (Specific / General)	Formation
					START CORING AT 1.40m						
90% RETURN		317, 316	2, 3		NO CORE 1.82m						
					ANDESITE: fine to coarse grained, grey, with quartz inclusions.	SW	VH	4.1		(3.22m) Cr, 10°, 30 mm.t (3.33m) J, 40°, P, R, Fe Sn (3.39m) J, 35°, P, Vr, Cn (3.43m) Jh, 45°, P, S, Cn (3.48m) Be, 15°, P, Vr, Cn (3.50m) J, 60°, P, R, Cn (3.55m) Be, 10°, Cr, Vr, Cn (3.60m) Be, 20°, Cr, Vr, Fe Sn (3.70m) J, 70°, P, Vr, Fe Sn, & Gravel FILLED	Temora Volcanics
		315, 314, 313, 312, 311	4, 5, 6, 7		END OF BOREHOLE AT 3.80 m						

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FRACTURES NOT MARKED ARE CONSIDERED TO BE DRILLING AND HANDLING BREAKS

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BOREHOLE LOG

Borehole No. 8

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~318.3 m
Date: 5/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	Field Tests	Depth (m)	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION		0	-	ASPHALTIC CONCRETE: 20mm.t	M			APPEARS POORLY COMPACTED
				FILL: Silty sand, fine to medium grained, red brown, with fine to coarse grained igneous gravel.				INSUFFICIENT RETURN FOR BULK SCREEN SAMPLE
	N = 3 1,1,2	0.3	CL	Sandy Silty CLAY: low plasticity, red brown, fine to coarse grained sand, trace of fine grained igneous and quartz gravel.	w<PL	(Hd)	>600 >600 >600	RESIDUAL
	N = 25 5,11,14	1.55	-	Extremely Weathered andesite: sandy silty CLAY or silty clayey SAND, low plasticity, brown, fine to coarse grained sand, trace of fine grained quartz gravel.	XW	Hd		TEMORA VOLCANICS
	N > 11 2,11/ 150mm REFUSAL							NO SPT RECOVERY FROM AUGER
		4.0		Extremely Weathered andesite: gravelly silty SAND, fine to coarse grained, brown, fine to medium grained igneous gravel.		VD		
		5.3		ANDESITE: grey, trace of high strength bands.	DW	L		VERY LOW TO LOW 'V' BIT RESISTANCE
		6.00		END OF BOREHOLE AT 6.00 m				

RL (m AHD): 318, 317, 316, 315, 314, 313, 312
Depth (m): 1, 2, 3, 4, 5, 6

SAMPLES: ES, U50, DB, DS

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BOREHOLE LOG

Borehole No.
9
1 / 1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~308.5 m
Date: 3/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES (ES / U50 / DB / DS)	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION	DB		308			CL-CI	Silty CLAY: low to medium plasticity, red brown, trace of quartz gravel and root fibres.	w<PL	(St - VSt)		GRASS COVER RESIDUAL TOO FRIABLE FOR HP TESTING
				1		-	ANDESITE: brown.	DW	H		TEMORA VOLCANICS MODERATE TO HIGH 'V' BIT RESISTANCE
			307				END OF BOREHOLE AT 1.20 m				'V' BIT REFUSAL
			306	2							
			305	3							
			304	4							
			303	5							
			302	6							

JK 9.02.4 LIB.GLB Log JK AUGERHOLE - MASTER 35822BF TEMORA.GPJ <<DrawingFile>> 25/05/2023 13:11 10.01.00.01 Datgel Lab and In Situ Tool - DGD | Lib: JK 9.02.4 2019-05-31 Prj: JK 9.01.0 2018-03-20

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BOREHOLE LOG

Borehole No.
10
1 / 1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~307.8 m
Date: 3/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	U50	DB	DS	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION						307	1		CL-CI	Silty CLAY: low to medium plasticity, red brown, trace of fine to medium grained quartz gravel and fine to coarse grained andesite gravel.	w>PL w<PL	(St - VSt)		GRASS COVER RESIDUAL TOO FRIABLE FOR HP TESTING
										as above, but brown.				
						306, 305, 304, 303, 302, 301	2, 3, 4, 5, 6			END OF BOREHOLE AT 1.50 m				

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BOREHOLE LOG

Borehole No.
11
1 / 1

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~318.1 m
Date: 3/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	U50	DB	DS	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION						318			CL-CI	Silty CLAY: low to medium plasticity, red brown, trace of fine to medium grained igneous gravel, and root fibres.	w~PL			GRASS COVER RESIDUAL TOO FRIABLE FOR HP TESTING
						317	1		-	Extremely Weathered andesite: sandy silty CLAY, low to medium plasticity, red brown, trace of fine to coarse grained igneous gravel.	XW	(Hd)		TEMORA VOLCANICS
						316 315 314 313 312	2 3 4 5 6			END OF BOREHOLE AT 1.50 m				

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BOREHOLE LOG

Borehole No.
12

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: 35822BF **Method:** SPIRAL AUGER **R.L. Surface:** ~312.6 m
Date: 3/5/23 **Datum:** AHD
Plant Type: HANJIN DB8 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	U50	DB	DS	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION						312			CL-CI	Silty CLAY: low to medium plasticity, red brown, with fine to coarse grained quartz gravel, trace of quartz boulder, fine grained igneous gravel, and root fibres.	w~PL			GRASS COVER RESIDUAL
							1			Sandy Silty CLAY: low to medium plasticity, brown, fine to medium grained sand, trace of fine grained igneous and ironstone gravel.	w<PL			
						311				END OF BOREHOLE AT 1.50 m				
							2							
						310								
							3							
						309								
							4							
						308								
							5							
						307								
							6							
						306								

JK 9.02.4 LIB.GLB Log JK AUGERHOLE - MASTER 35822BF TEMORA.GPJ <<DrawingFile>> 25/05/2023 13:11 10.01.00.01 Datgel Lab and In Situ Tool - DGD | Lib: JK 9.02.4 2019-05-31 Prj: JK 9.01.0 2018-03-20

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP13**

1/1

SDUP4: 0-0.1m

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED ALTERATIONS AND ADDITIONS

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** STRIP TRENCH **R.L. Surface:** ≈ 319.3m

Date: 4/5/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./T.H.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL:Silty clay, low to medium plasticity, brown, trace of quartz gravel and root fibres.	w≈PL			GRASS COVER SCREEN: 10.52kg 0-0.1m, NO FCF SCREEN: 10.22kg 0.1-0.3m, NO FCF
			0.5 1		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of volcanic breccia.	w≈PL			RESIDUAL
			1.5 2 2.5 3 3.5			END OF BOREHOLE AT 1.05m				

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **TP14**

1/1

SDUP3: 0-0.1m

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED ALTERATIONS AND ADDITIONS

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** STRIP TRENCH **R.L. Surface:** ≈ 320.5m

Date: 4/5/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./T.H.

Groundwater Record	Samples (ES / ASS / ASB / SAL / DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, low to medium plasticity, brown, trace of igneous and quartz gravel, volcanic breccia, metal fragments and root fibres.	w≈PL			GRASS COVER SCREEN: 12.31kg 0-0.2m, NO FCF
					CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of quartz and volcanic breccia.	w≈PL			RESIDUAL
			0.5		-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown.	XW			TEMORA VOLCANICS
			1			END OF BOREHOLE AT 1.0m				
			1.5							
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. **TP15** 1/1

Environmental logs are not to be used for geotechnical purposes

SDUP2: 0-0.1m

Client: HEALTH INFRASTRUCTURE
Project: PROPOSED ALTERATIONS AND ADDITIONS
Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** STRIP TRENCH **R.L. Surface:** ≈ 316.7m
Date: 4/5/23 **Datum:** AHD
Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./T.H.

Groundwater Record	SAMPLES (ES, ASS, ASB, SAL, DB)	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			FILL: Silty clay, low to medium plasticity, brown, trace of quartz gravel, and root fibres.	w≈PL			GRASS COVER SCREEN: 10.29kg 0-0.1m, NO FCF SCREEN: 10.34kg 0.1-0.5m, NO FCF
			0.5			FILL: Sandy silty clay, low to medium plasticity, red brown, trace of volcanic breccia.	w≈PL			SCREEN: 12.52kg 0.5-1.1m, NO FCF
			1		CL-CI	Silty CLAY: low to medium plasticity, red brown, trace of quartz gravel.	w≈PL			RESIDUAL
			1.5			END OF BOREHOLE AT 1.5m				
			2							
			2.5							
			3							
			3.5							

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ENVIRONMENTAL LOG

Log No. **TP16** 1/1

Environmental logs are not to be used for geotechnical purposes

SDUP1: 0-0.1m

Client: HEALTH INFRASTRUCTURE

Project: PROPOSED ALTERATIONS AND ADDITIONS

Location: TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Job No.: E35822PR **Method:** STRIP TRENCH **R.L. Surface:** ≈ 316.6m

Date: 4/5/23 **Datum:** AHD

Plant Type: 3T EXCAVATOR **Logged/Checked by:** A.D./T.H.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION							0		CL-CI	Silty CLAY: low to medium plasticity, brown, trace of quartz gravel, and root fibres.	w≈PL			GRASS COVER RESIDUAL
							0.5		CI-CH	Silty CLAY: medium to high plasticity, red brown, trace of volcanic breccia.	w≈PL			
									-	Extremely Weathered andesite: silty SAND, fine to coarse grained, brown.	XW			TEMORA VOLCANICS
							1			END OF BOREHOLE AT 1.0m				
							1.5							
							2							
							2.5							
							3							
							3.5							

ENVIRONMENTAL LOGS EXPLANATION NOTES

INTRODUCTION

These notes have been provided to amplify the environmental report in regard to classification methods, field procedures and certain matters relating to the logging of soil and rock. Not all notes are necessarily relevant to all reports.

Where geotechnical borehole logs are utilised for environmental purpose, reference should also be made to the explanatory notes included in the geotechnical report. Environmental logs are not suitable for geotechnical purposes.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Environmental studies include gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726:2017 *'Geotechnical Site Investigations'*. In general, descriptions cover the following properties – soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geoenvironmental practice.

Soil types are described according to the predominating particle size and behaviour as set out in the attached soil classification table qualified by the grading of other particles present (eg. sandy clay) as set out below:

Soil Classification	Particle Size
Clay	< 0.002mm
Silt	0.002 to 0.075mm
Sand	0.075 to 2.36mm
Gravel	2.36 to 63mm
Cobbles	63 to 200mm
Boulders	> 200mm

Non-cohesive soils are classified on the basis of relative density, generally from the results of Standard Penetration Test (SPT) as below:

Relative Density	SPT 'N' Value (blows/300mm)
Very loose (VL)	< 4
Loose (L)	4 to 10
Medium dense (MD)	10 to 30
Dense (D)	30 to 50
Very Dense (VD)	> 50

Cohesive soils are classified on the basis of strength (consistency) either by use of a hand penetrometer, vane shear, laboratory testing and/or tactile engineering examination. The strength terms are defined as follows.

Classification	Unconfined Compressive Strength (kPa)	Indicative Undrained Shear Strength (kPa)
Very Soft (VS)	≤ 25	≤ 12
Soft (S)	> 25 and ≤ 50	> 12 and ≤ 25
Firm (F)	> 50 and ≤ 100	> 25 and ≤ 50
Stiff (St)	> 100 and ≤ 200	> 50 and ≤ 100
Very Stiff (VSt)	> 200 and ≤ 400	> 100 and ≤ 200
Hard (Hd)	> 400	> 200
Friable (Fr)	Strength not attainable – soil crumbles	

Rock types are classified by their geological names, together with descriptive terms regarding weathering, strength, defects, etc. Where relevant, further information regarding rock classification is given in the text of the report. In the Sydney Basin, 'shale' is used to describe fissile mudstone, with a weakness parallel to bedding. Rocks with alternating inter-laminations of different grain size (eg. siltstone/claystone and siltstone/fine grained sandstone) are referred to as 'laminite'.

INVESTIGATION METHODS

The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application. All methods except test pits, hand auger drilling and portable Dynamic Cone Penetrometers require the use of a mechanical rig which is commonly mounted on a truck chassis or track base.

Test Pits: These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils and 'weaker' bedrock if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for a large excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling: A borehole of 50mm to 100mm diameter is advanced by manually operated equipment. Refusal of the hand auger can occur on a variety of materials such as obstructions within any fill, tree roots, hard clay, gravel or ironstone, cobbles and boulders, and does not necessarily indicate rock level.

Continuous Spiral Flight Augers: The borehole is advanced using 75mm to 115mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling and insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the auger flights, but they can be very disturbed and layers may become mixed. Information from the auger sampling (as distinct from specific sampling by SPTs or undisturbed samples) is of limited reliability due to mixing or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table is of even lesser reliability than augering above the water table.

Rock Augering: Use can be made of a Tungsten Carbide (TC) bit for auger drilling into rock to indicate rock quality and continuity by variation in drilling resistance and from examination of recovered rock cuttings. This method of investigation is quick and relatively inexpensive but provides only an indication of the likely rock strength and predicted values may be in error by a strength order. Where rock strengths may have a significant impact on construction feasibility or costs, then further investigation by means of cored boreholes may be warranted.

Wash Boring: The borehole is usually advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be assessed from the cuttings, together with some information from "feel" and rate of penetration.

Mud Stabilised Drilling: Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilise the borehole. The term 'mud' encompasses a range of products ranging from bentonite to polymers. The mud tends to mask the cuttings and reliable identification is only possible from intermittent intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling: A continuous core sample is obtained using a diamond tipped core barrel. Provided full core recovery is achieved (which is not always possible in very low strength rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation. In rocks, NMLC or HQ triple tube core barrels, which give a core of about 50mm and 61mm diameter, respectively, is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as NO CORE. The location of NO CORE recovery is determined on site by the supervising engineer; where the location is uncertain, the loss is placed at the bottom of the drill run.

Standard Penetration Tests: Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289.6.3.1–2004 (R2016) *'Methods of Testing Soils for Engineering Purposes, Soil Strength and Consolidation Tests – Determination of the Penetration Resistance of a Soil – Standard Penetration Test (SPT)'*.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63.5kg hammer with a free fall of 760mm. It is normal for the tube to be driven in three successive 150mm increments and the 'N' value is taken as the number of blows for the last 300mm. In dense sands, very hard clays or weak rock, the full 450mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form:

- In the case where full penetration is obtained with successive blow counts for each 150mm of, say, 4, 6 and 7 blows, as

  N = 13
  4, 6, 7

- In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150mm and 30 blows for the next 40mm, as

  N > 30
  15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

A modification to the SPT is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid Cone Penetration Test (SCPT) are shown as 'N_c' on the borehole logs, together with the number of blows per 150mm penetration.

LOGS

The borehole or test pit logs presented herein are an interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment, but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The terms and symbols used in preparation of the logs are defined in the following pages.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than 'straight line' variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems:

- Although groundwater may be present, in low permeability soils it may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must be washed out of the hole or 'reverted' chemically if reliable water observations are to be made.

More reliable measurements can be made by installing standpipes which are read after the groundwater level has stabilised at intervals ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably assess the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse environmental characteristics or behaviour. If the volume and nature of fill is of importance to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing has not been undertaken to confirm the soil classification and rock strengths indicated on the environmental logs unless noted in the report.

SYMBOL LEGENDS

SOIL

- FILL
- TOPSOIL
- CLAY (CL, CI, CH)
- SILT (ML, MH)
- SAND (SP, SW)
- GRAVEL (GP, GW)
- SANDY CLAY (CL, CI, CH)
- SILTY CLAY (CL, CI, CH)
- CLAYEY SAND (SC)
- SILTY SAND (SM)
- GRAVELLY CLAY (CL, CI, CH)
- CLAYEY GRAVEL (GC)
- SANDY SILT (ML, MH)
- PEAT AND HIGHLY ORGANIC SOILS (Pt)

ROCK

- CONGLOMERATE
- SANDSTONE
- SHALE/MUDSTONE
- SILTSTONE
- CLAYSTONE
- COAL
- LAMINITE
- LIMESTONE
- PHYLLITE, SCHIST
- TUFF
- GRANITE, GABBRO
- DOLERITE, DIORITE
- BASALT, ANDESITE
- QUARTZITE

OTHER MATERIALS

- BRICKS OR PAVERS
- CONCRETE
- ASPHALTIC CONCRETE

CLASSIFICATION OF COARSE AND FINE GRAINED SOILS

Major Divisions		Group Symbol	Typical Names	Field Classification of Sand and Gravel	Laboratory Classification	
Coarse grained soil (more than 65% of soil excluding oversize fraction is greater than 0.075mm)	GRAVEL (more than half of coarse fraction is larger than 2.36mm	GW	Gravel and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 4$ $1 < C_c < 3$
		GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		GM	Gravel-silt mixtures and gravel-sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	Fines behave as silt
		GC	Gravel-clay mixtures and gravel-sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	Fines behave as clay
	SAND (more than half of coarse fraction is smaller than 2.36mm)	SW	Sand and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 6$ $1 < C_c < 3$
		SP	Sand and gravel-sand mixtures, little or no fines	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		SM	Sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	N/A
		SC	Sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
ine grained soils (more than 35% of soil excluding oversize fraction is less than 0.075mm)	SILT and CLAY (low to medium plasticity)	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity	None to low	Slow to rapid	Low	Below A line
		CL, CI	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay	Medium to high	None to slow	Medium	Above A line
		OL	Organic silt	Low to medium	Slow	Low	Below A line
	SILT and CLAY (high plasticity)	MH	Inorganic silt	Low to medium	None to slow	Low to medium	Below A line
		CH	Inorganic clay of high plasticity	High to very high	None	High	Above A line
		OH	Organic clay of medium to high plasticity, organic silt	Medium to high	None to very slow	Low to medium	Below A line
	Highly organic soil	Pt	Peat, highly organic soil	–	–	–	–

Laboratory Classification Criteria

A well graded coarse grained soil is one for which the coefficient of uniformity $Cu > 4$ and the coefficient of curvature $1 < C_c < 3$. Otherwise, the soil is poorly graded. These coefficients are given by:

$$C_U = \frac{D_{60}}{D_{10}} \quad and \quad C_C = \frac{(D_{30})^2}{D_{10}\,D_{60}}$$

Where D_{10}, D_{30} and D_{60} are those grain sizes for which 10%, 30% and 60% of the soil grains, respectively, are smaller.

NOTES:

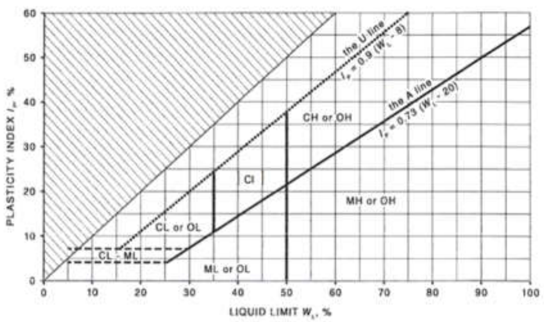
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

2 Where the grading is determined from laboratory tests, it is defined by coefficients of curvature (C_c) and uniformity (C_u) derived from the particle size distribution curve.

3 Clay soils with liquid limits > 35% and ≤ 50% may be classified as being of medium plasticity.

4 The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

Modified Casagrande Chart for Classifying Silts and Clays according to their Behaviour



LOG SYMBOLS

Log Column	Symbol	Definition
Groundwater Record	▼	Standing water level. Time delay following completion of drilling/excavation may be shown.
	C	Extent of borehole/test pit collapse shortly after drilling/excavation.
	▶	Groundwater seepage into borehole or test pit noted during drilling or excavation.
Samples	ES	Sample taken over depth indicated, for environmental analysis.
	U50	Undisturbed 50mm diameter tube sample taken over depth indicated.
	DB	Bulk disturbed sample taken over depth indicated.
	DS	Small disturbed bag sample taken over depth indicated.
	ASB	Soil sample taken over depth indicated, for asbestos analysis.
	ASS	Soil sample taken over depth indicated, for acid sulfate soil analysis.
	SAL	Soil sample taken over depth indicated, for salinity analysis.
	PFAS	Soil sample taken over depth indicated, for analysis of Per- and Polyfluoroalkyl Substances.
Field Tests	N = 17 4, 7, 10	Standard Penetration Test (SPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration. 'Refusal' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	N_c = 5 7 3R	Solid Cone Penetration Test (SCPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration for 60° solid cone driven by SPT hammer. 'R' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	VNS = 25	Vane shear reading in kPa of undrained shear strength.
	PID = 100	Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL	Moisture content estimated to be greater than plastic limit.
	w ≈ PL	Moisture content estimated to be approximately equal to plastic limit.
	w < PL	Moisture content estimated to be less than plastic limit.
	w ≈ LL	Moisture content estimated to be near liquid limit.
	w > LL	Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	D	DRY – runs freely through fingers.
	M	MOIST – does not run freely but no free water visible on soil surface.
	W	WET – free water visible on soil surface.
Strength (Consistency) Cohesive Soils	VS	VERY SOFT – unconfined compressive strength ≤ 25kPa.
	S	SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa.
	F	FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa.
	St	STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa.
	VSt	VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa.
	Hd	HARD – unconfined compressive strength > 400kPa.
	Fr	FRIABLE – strength not attainable, soil crumbles.
	( )	Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.

Log Column	Symbol	Definition	Density Index (I_D) Range (%)	SPT 'N' Value Range (Blows/300mm)
Density Index/ Relative Density (Cohesionless Soils)	VL	VERY LOOSE	≤ 15	0 – 4
	L	LOOSE	> 15 and ≤ 35	4 – 10
	MD	MEDIUM DENSE	> 35 and ≤ 65	10 – 30
	D	DENSE	> 65 and ≤ 85	30 – 50
	VD	VERY DENSE	> 85	> 50
	( )	Bracketed symbol indicates estimated density based on ease of drilling or other assessment.		

Log Column	Symbol	Definition
Hand Penetrometer Readings	300 250	Measures reading in kPa of unconfined compressive strength. Numbers indicate individual test results on representative undisturbed material unless noted otherwise.
Remarks	'V' bit	Hardened steel 'V' shaped bit.
	'TC' bit	Twin pronged tungsten carbide bit.
	T_{60}	Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers.
	Soil Origin	The geological origin of the soil can generally be described as: RESIDUAL – soil formed directly from insitu weathering of the underlying rock. No visible structure or fabric of the parent rock. EXTREMELY WEATHERED – soil formed directly from insitu weathering of the underlying rock. Material is of soil strength but retains the structure and/or fabric of the parent rock. ALLUVIAL – soil deposited by creeks and rivers. ESTUARINE – soil deposited in coastal estuaries, including sediments caused by inflowing creeks and rivers, and tidal currents. MARINE – soil deposited in a marine environment. AEOLIAN – soil carried and deposited by wind. COLLUVIAL – soil and rock debris transported downslope by gravity, with or without the assistance of flowing water. Colluvium is usually a thick deposit formed from a landslide. The description 'slopewash' is used for thinner surficial deposits. LITTORAL – beach deposited soil.

Classification of Material Weathering

Term		Abbreviation		Definition
Residual Soil		RS		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely Weathered		XW		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible.
Highly Weathered	Distinctly Weathered (Note 1)	HW	DW	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately Weathered		MW		The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly Weathered		SW		Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh		FR		Rock shows no sign of decomposition of individual minerals or colour changes.

NOTE 1: The term 'Distinctly Weathered' is used where it is not practicable to distinguish between 'Highly Weathered' and 'Moderately Weathered' rock. 'Distinctly Weathered' is defined as follows: *'Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores'*. There is some change in rock strength.

Rock Material Strength Classification

			Guide to Strength	
Term	Abbreviation	Uniaxial Compressive Strength (MPa)	Point Load Strength Index $Is_{(50)}$ (MPa)	Field Assessment
Very Low Strength	VL	0.6 to 2	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30mm thick can be broken by finger pressure.
Low Strength	L	2 to 6	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show in the specimen with firm blows of the pick point; has dull sound under hammer. A piece of core 150mm long by 50mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium Strength	M	6 to 20	0.3 to 1	Scored with a knife; a piece of core 150mm long by 50mm diameter can be broken by hand with difficulty.
High Strength	H	20 to 60	1 to 3	A piece of core 150mm long by 50mm diameter cannot be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High Strength	VH	60 to 200	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
Extremely High Strength	EH	> 200	> 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

Appendix E: Laboratory Reports & COC Documents

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CERTIFICATE OF ANALYSIS 333165

Client Details

Client	JK Environments
Attention	C Ridley
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E35822PR, Temora**
Number of Samples	156 Soil, 3 Water, 1 Material
Date samples received	15/09/2023
Date completed instructions received	15/09/2023

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	25/09/2023
Date of Issue	27/09/2023
Reissue Details	This report replaces R00 created on 25/09/2023 due to: revised report with additional results.

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Asbestos Approved By
Analysed by Asbestos Approved Analyst: Nyovan Moonean, Anthony Clark
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
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Dragana Tomas, Senior Chemist
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Liam Timmins, Organics Supervisor
Loren Bardwell, Development Chemist
Lucy Zhu, Asbestos Supervisor
Steven Luong, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-1	333165-2	333165-3	333165-6	333165-8
Your Reference	UNITS	TP101	TP101	TP102	TP103	TP104
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	25/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	93	94	96	93	95

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-11	333165-13	333165-14	333165-15	333165-17
Your Reference	UNITS	TP105	TP106	TP106	TP107	TP108
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	97	97	92	89	93

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-18	333165-19	333165-21	333165-23	333165-25
Your Reference	UNITS	TP108	TP109	TP110	TP111	TP112
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	79	94	92	95	97

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-27	333165-29	333165-31	333165-33	333165-36
Your Reference	UNITS	TP113	TP113	TP114	TP115	TP116
Depth		0-0.1	0.9-1.0	0-0.1	0-0.1	0-0.05
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	96	97	88	90	93

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-37	333165-38	333165-40	333165-42	333165-44
Your Reference	UNITS	TP116	TP117	TP118	TP119	TP120
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	6/09/2023	6/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	98	88	98	92	99

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-45	333165-46	333165-48	333165-50	333165-52
Your Reference	UNITS	TP120	TP121	TP122	TP123	TP124
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	37	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	37	<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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	94	98	97	88	83

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-53	333165-55	333165-56	333165-59	333165-60
Your Reference	UNITS	TP125	TP125	BH126	TP127	TP127
Depth		0-0.1	0.7-0.8	0.02-0.2	0-0.1	0.3-0.4
Date Sampled		8/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	92	89	90	97	96

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-61	333165-63	333165-65	333165-66	333165-67
Your Reference	UNITS	TP128	TP129	TP130	TP130	TP131
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	96	94	97	95	98

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-69	333165-71	333165-73	333165-75	333165-77
Your Reference	UNITS	TP132	TP133	TP134	TP135	TP136
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	98	100	92	98	95

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-78	333165-80	333165-82	333165-84	333165-85
Your Reference	UNITS	TP136	TP137	TP138	TP139	TP139
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.2-0.3
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	94	96	92	91	94

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-86	333165-88	333165-89	333165-92	333165-93
Your Reference	UNITS	TP140	TP140	TP141	TP142	TP142
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		11/09/2023	11/09/2023	12/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	93	94	90	77	84

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-94	333165-95	333165-97	333165-98	333165-100
Your Reference	UNITS	TP143	TP143	TP144	TP144	TP145
Depth		0-0.1	0.2-0.3	0-0.1	0.2-0.3	0-0.1
Date Sampled		11/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	81	82	89	88	94

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-101	333165-102	333165-103	333165-104	333165-106
Your Reference	UNITS	TP145	TP146	TP146	TP147	TP147
Depth		0.4-0.5	0-0.05	0.3-0.4	0-0.1	0.6-0.7
Date Sampled		8/09/2023	7/09/2023	7/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	89	90	94	87	81

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-108	333165-110	333165-112	333165-113	333165-114
Your Reference	UNITS	TP148	TP149	TP149	TP149	TP150
Depth		0-0.1	0-0.1	0.5-0.6	0.7-0.8	0-0.1
Date Sampled		8/09/2023	8/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	22/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	95	89	90	85	93

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-116	333165-118	333165-119	333165-121	333165-122
Your Reference	UNITS	TP151	TP152	TP153	TP153	TP154
Depth		0-0.1	0-0.1	0-0.1	0.6-0.7	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	12/09/2023	12/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	89	93	91	86	85

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-124	333165-125	333165-126	333165-128	333165-130
Your Reference	UNITS	BH155	BH155	BH155	TP156	BH157
Depth		0.05-0.2	0.2-0.5	0.5-0.8	0-0.1	0.03-0.3
Date Sampled		13/09/2023	13/09/2023	13/09/2023	8/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	87	88	87	88	91

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-133	333165-134	333165-135	333165-139	333165-140
Your Reference	UNITS	BH158	BH158	TP159	TP160	TP160
Depth		0.04-0.3	0.3-0.6	0-0.1	0-0.1	0.2-0.3
Date Sampled		13/09/2023	13/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	92	96	90	97	93

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-141	333165-143	333165-145	333165-146	333165-148
Your Reference	UNITS	TP161	BH162	BH162	TP163	SDUP106
Depth		0-0.1	0.04-0.2	1.2-1.4	0-0.1	-
Date Sampled		11/09/2023	13/09/2023	13/09/2023	8/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	94	94	89	97	94

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		333165-149	333165-150	333165-151	333165-152	333165-153
Your Reference	UNITS	SDUP107	SDUP108	SDUP109	SDUP110	TB-S101
Depth		-	-	-	-	-
Date Sampled		7/09/2023	8/09/2023	11/09/2023	11/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	71	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	71	<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	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	96	91	84	95	99

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		333165-154	333165-159	333165-160
Your Reference	UNITS	TB-S102	TS-S101	TS-S102
Depth		-	-	-
Date Sampled		11/09/2023	06/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023
TRH C_6 - C_9	mg/kg	<25	[NA]	[NA]
TRH C_6 - C_{10}	mg/kg	<25	[NA]	[NA]
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	[NA]	[NA]
Benzene	mg/kg	<0.2	86%	99%
Toluene	mg/kg	<0.5	86%	99%
Ethylbenzene	mg/kg	<1	87%	99%
m+p-xylene	mg/kg	<2	86%	99%
o-Xylene	mg/kg	<1	86%	98%
Naphthalene	mg/kg	<1	[NA]	[NA]
Total +ve Xylenes	mg/kg	<1	[NA]	[NA]
Surrogate aaa-Trifluorotoluene	%	93	88	98

svTRH (C10-C40) in Soil						
Our Reference		333165-1	333165-2	333165-3	333165-6	333165-8
Your Reference	UNITS	TP101	TP101	TP102	TP103	TP104
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	110	190	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	150	240	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	260	440	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	56	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	56	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	210	340	140
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	160	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	210	550	140
Surrogate o-Terphenyl	%	84	83	85	89	89

svTRH (C10-C40) in Soil						
Our Reference		333165-11	333165-13	333165-14	333165-15	333165-17
Your Reference	UNITS	TP105	TP106	TP106	TP107	TP108
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	120	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	120	<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	180	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	180	<50	<50	<50	<50
Surrogate o-Terphenyl	%	86	82	83	82	83

svTRH (C10-C40) in Soil						
Our Reference		333165-18	333165-19	333165-21	333165-23	333165-25
Your Reference	UNITS	TP108	TP109	TP110	TP111	TP112
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	150	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	130	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	280	<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	230	<100
TRH >C_{34}-C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	230	<50
Surrogate o-Terphenyl	%	83	83	82	83	81

svTRH (C10-C40) in Soil						
Our Reference		333165-27	333165-29	333165-31	333165-33	333165-36
Your Reference	UNITS	TP113	TP113	TP114	TP115	TP116
Depth		0-0.1	0.9-1.0	0-0.1	0-0.1	0-0.05
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	77
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	340	450
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	450	440
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	790	960
TRH >C_{10}-C_{16}	mg/kg	<50	<50	<50	73	120
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	73	120
TRH >C_{16}-C_{34}	mg/kg	<100	100	<100	620	720
TRH >C_{34}-C_{40}	mg/kg	<100	<100	<100	250	240
Total +ve TRH (>C10-C40)	mg/kg	<50	100	<50	950	1,100
Surrogate o-Terphenyl	%	82	84	83	91	95

svTRH (C10-C40) in Soil						
Our Reference		333165-37	333165-38	333165-40	333165-42	333165-44
Your Reference	UNITS	TP116	TP117	TP118	TP119	TP120
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	6/09/2023	6/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	21/09/2023	21/09/2023	21/09/2023	22/09/2023
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	140	<100	130
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	140	<50	130
Surrogate o-Terphenyl	%	81	83	110	94	88

svTRH (C10-C40) in Soil						
Our Reference		333165-45	333165-46	333165-48	333165-50	333165-52
Your Reference	UNITS	TP120	TP121	TP122	TP123	TP124
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	21/09/2023	21/09/2023	22/09/2023	22/09/2023	22/09/2023
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	110	140	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	210	140	<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	170	160	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	170	160	<50	<50
Surrogate o-Terphenyl	%	105	89	104	91	91

svTRH (C10-C40) in Soil						
Our Reference		333165-53	333165-55	333165-56	333165-59	333165-60
Your Reference	UNITS	TP125	TP125	BH126	TP127	TP127
Depth		0-0.1	0.7-0.8	0.02-0.2	0-0.1	0.3-0.4
Date Sampled		8/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	150	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	150	<50	<50	<50	<50
Surrogate o-Terphenyl	%	107	103	90	105	92

svTRH (C10-C40) in Soil						
Our Reference		333165-61	333165-63	333165-65	333165-66	333165-67
Your Reference	UNITS	TP128	TP129	TP130	TP130	TP131
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	%	92	92	85	109	96

svTRH (C10-C40) in Soil						
Our Reference		333165-69	333165-71	333165-73	333165-75	333165-77
Your Reference	UNITS	TP132	TP133	TP134	TP135	TP136
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	110
TRH C_{29} - C_{36}	mg/kg	120	<100	<100	<100	200
Total +ve TRH (C10-C36)	mg/kg	120	<50	<50	<50	310
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	130	<100	100	<100	230
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	240
Total +ve TRH (>C10-C40)	mg/kg	130	<50	100	<50	460
Surrogate o-Terphenyl	%	102	90	103	104	107

svTRH (C10-C40) in Soil						
Our Reference		333165-78	333165-80	333165-82	333165-84	333165-85
Your Reference	UNITS	TP136	TP137	TP138	TP139	TP139
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.2-0.3
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	%	88	104	87	92	98

svTRH (C10-C40) in Soil						
Our Reference		333165-86	333165-88	333165-89	333165-92	333165-93
Your Reference	UNITS	TP140	TP140	TP141	TP142	TP142
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		11/09/2023	11/09/2023	12/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	%	87	85	87	85	97

svTRH (C10-C40) in Soil						
Our Reference		333165-94	333165-95	333165-97	333165-98	333165-100
Your Reference	UNITS	TP143	TP143	TP144	TP144	TP145
Depth		0-0.1	0.2-0.3	0-0.1	0.2-0.3	0-0.1
Date Sampled		11/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	23/09/2023	23/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	120	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	660	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	770	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	1,500	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	210	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	210	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	1,100	<100	100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	440	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	1,800	<50	100
Surrogate o-Terphenyl	%	92	86	110	76	87

svTRH (C10-C40) in Soil						
Our Reference		333165-101	333165-102	333165-103	333165-104	333165-106
Your Reference	UNITS	TP145	TP146	TP146	TP147	TP147
Depth		0.4-0.5	0-0.05	0.3-0.4	0-0.1	0.6-0.7
Date Sampled		8/09/2023	7/09/2023	7/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	23/09/2023	23/09/2023	23/09/2023	23/09/2023	23/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	110
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	110
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	160
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	160
Surrogate o-Terphenyl	%	82	81	81	81	87

svTRH (C10-C40) in Soil						
Our Reference		333165-108	333165-110	333165-112	333165-113	333165-114
Your Reference	UNITS	TP148	TP149	TP149	TP149	TP150
Depth		0-0.1	0-0.1	0.5-0.6	0.7-0.8	0-0.1
Date Sampled		8/09/2023	8/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	23/09/2023	23/09/2023	23/09/2023	23/09/2023	23/09/2023
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	150	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	150	<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	160	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	260	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	420	<50	<50	<50
Surrogate o-Terphenyl	%	94	102	76	77	77

svTRH (C10-C40) in Soil						
Our Reference		333165-116	333165-118	333165-119	333165-121	333165-122
Your Reference	UNITS	TP151	TP152	TP153	TP153	TP154
Depth		0-0.1	0-0.1	0-0.1	0.6-0.7	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	12/09/2023	12/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	23/09/2023	23/09/2023	23/09/2023	23/09/2023	23/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	270	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	210	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	480	<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	400	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	160	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	560	<50	<50
Surrogate o-Terphenyl	%	77	73	104	70	61

svTRH (C10-C40) in Soil						
Our Reference		333165-124	333165-125	333165-126	333165-128	333165-130
Your Reference	UNITS	BH155	BH155	BH155	TP156	BH157
Depth		0.05-0.2	0.2-0.5	0.5-0.8	0-0.1	0.03-0.3
Date Sampled		13/09/2023	13/09/2023	13/09/2023	8/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	23/09/2023	23/09/2023	23/09/2023	23/09/2023	23/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	310	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	170	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	480	<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	400	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	120	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	530	<50	<50	<50
Surrogate o-Terphenyl	%	95	112	78	81	87

svTRH (C10-C40) in Soil						
Our Reference		333165-133	333165-134	333165-135	333165-139	333165-140
Your Reference	UNITS	BH158	BH158	TP159	TP160	TP160
Depth		0.04-0.3	0.3-0.6	0-0.1	0-0.1	0.2-0.3
Date Sampled		13/09/2023	13/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	23/09/2023	23/09/2023	23/09/2023	23/09/2023	23/09/2023
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	%	112	80	84	80	79

svTRH (C10-C40) in Soil						
Our Reference		333165-141	333165-143	333165-145	333165-146	333165-148
Your Reference	UNITS	TP161	BH162	BH162	TP163	SDUP106
Depth		0-0.1	0.04-0.2	1.2-1.4	0-0.1	-
Date Sampled		11/09/2023	13/09/2023	13/09/2023	8/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	23/09/2023	23/09/2023	22/09/2023	22/09/2023	23/09/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	140	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	150	130	<100	<100	140
Total +ve TRH (C10-C36)	mg/kg	150	270	<50	<50	140
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	140	220	<100	<100	180
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	140	220	<50	<50	180
Surrogate o-Terphenyl	%	77	98	69	80	84

svTRH (C10-C40) in Soil						
Our Reference		333165-149	333165-150	333165-151	333165-152	333165-153
Your Reference	UNITS	SDUP107	SDUP108	SDUP109	SDUP110	TB-S101
Depth		-	-	-	-	-
Date Sampled		7/09/2023	8/09/2023	11/09/2023	11/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	23/09/2023	23/09/2023	23/09/2023	22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	120	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	530	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	490	<100	100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	1,100	<50	100	<50	<50
TRH >C_{10} -C_{16}	mg/kg	150	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	150	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	830	<100	140	<100	<100
TRH >C_{34} -C_{40}	mg/kg	240	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	1,200	<50	140	<50	<50
Surrogate o-Terphenyl	%	97	81	82	64	75

svTRH (C10-C40) in Soil		
Our Reference		333165-154
Your Reference	UNITS	TB-S102
Depth		-
Date Sampled		11/09/2023
Type of sample		Soil
Date extracted	-	18/09/2023
Date analysed	-	22/09/2023
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	73

PAHs in Soil						
Our Reference		333165-1	333165-2	333165-3	333165-6	333165-8
Your Reference	UNITS	TP101	TP101	TP102	TP103	TP104
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	22/09/2023	20/09/2023	22/09/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	0.2	0.2	0.2
Acenaphthene	mg/kg	<0.1	<0.1	0.2	0.1	0.5
Fluorene	mg/kg	<0.1	<0.1	0.1	<0.1	0.4
Phenanthrene	mg/kg	1.7	<0.1	3.2	2.1	7.2
Anthracene	mg/kg	0.2	<0.1	0.3	0.3	1.4
Fluoranthene	mg/kg	4.1	<0.1	7.0	4.9	12
Pyrene	mg/kg	3.8	<0.1	6.8	4.6	11
Benzo(a)anthracene	mg/kg	1.1	<0.1	2.1	1.4	3.8
Chrysene	mg/kg	1.2	<0.1	2.1	1.4	3.4
Benzo(b,j+k)fluoranthene	mg/kg	2.6	<0.2	4.8	3.3	7.4
Benzo(a)pyrene	mg/kg	1.8	<0.05	2.9	2.3	4.6
Indeno(1,2,3-c,d)pyrene	mg/kg	1.1	<0.1	1.9	1.3	2.8
Dibenzo(a,h)anthracene	mg/kg	0.2	<0.1	0.3	0.2	0.4
Benzo(g,h,i)perylene	mg/kg	1.5	<0.1	2.6	1.6	3.8
Total +ve PAH's	mg/kg	19	<0.05	34	24	59
Benzo(a)pyrene TEQ calc (zero)	mg/kg	2.5	<0.5	4.2	3.2	6.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	2.5	<0.5	4.2	3.2	6.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	2.5	<0.5	4.2	3.2	6.5
Surrogate p-Terphenyl-d14	%	103	106	108	104	106

PAHs in Soil						
Our Reference		333165-11	333165-13	333165-14	333165-15	333165-17
Your Reference	UNITS	TP105	TP106	TP106	TP107	TP108
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	22/09/2023	20/09/2023	20/09/2023	22/09/2023
Naphthalene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.7	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.5	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	8.0	0.4	<0.1	0.2	0.2
Anthracene	mg/kg	1.4	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	11	1.1	<0.1	0.6	0.4
Pyrene	mg/kg	10	1.1	<0.1	0.6	0.4
Benzo(a)anthracene	mg/kg	3.2	0.3	<0.1	0.1	0.1
Chrysene	mg/kg	2.9	0.4	<0.1	0.2	0.2
Benzo(b,j+k)fluoranthene	mg/kg	5.8	0.8	<0.2	0.4	0.3
Benzo(a)pyrene	mg/kg	4.5	0.5	<0.05	0.3	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	2.2	0.3	<0.1	0.2	0.1
Dibenzo(a,h)anthracene	mg/kg	0.4	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	2.7	0.4	<0.1	0.2	0.2
Total +ve PAH's	mg/kg	54	5.3	<0.05	2.8	2.0
Benzo(a)pyrene TEQ calc (zero)	mg/kg	6.1	0.6	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	6.1	0.7	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	6.1	0.7	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	104	109	104	102	108

PAHs in Soil						
Our Reference		333165-18	333165-19	333165-21	333165-23	333165-25
Your Reference	UNITS	TP108	TP109	TP110	TP111	TP112
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	22/09/2023	20/09/2023	25/09/2023
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	0.3	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.7	0.3
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.7	0.3
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.3	0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.6	0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.4	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	<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	0.3	0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	3.6	1.3
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	0.6	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	0.6	<0.5
Surrogate p-Terphenyl-d14	%	104	105	107	104	105

PAHs in Soil						
Our Reference		333165-27	333165-29	333165-31	333165-33	333165-36
Your Reference	UNITS	TP113	TP113	TP114	TP115	TP116
Depth		0-0.1	0.9-1.0	0-0.1	0-0.1	0-0.05
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	22/09/2023	22/09/2023	22/09/2023	20/09/2023
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	0.2	<0.1
Phenanthrene	mg/kg	0.5	2.3	0.5	0.2	0.3
Anthracene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.7	2.9	1.2	0.5	0.6
Pyrene	mg/kg	0.6	2.6	1.2	0.4	0.6
Benzo(a)anthracene	mg/kg	0.2	0.7	0.3	0.1	0.2
Chrysene	mg/kg	0.2	0.7	0.4	0.2	0.2
Benzo(b,j+k)fluoranthene	mg/kg	0.3	2	0.9	0.3	0.5
Benzo(a)pyrene	mg/kg	0.2	0.93	0.53	0.2	0.3
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	0.6	0.4	0.1	0.2
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	0.8	0.5	0.2	0.2
Total +ve PAH's	mg/kg	2.9	14	6.0	2.5	3.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	1.2	0.7	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	1.3	0.7	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	1.3	0.8	<0.5	0.5
Surrogate p-Terphenyl-d14	%	105	103	104	106	104

PAHs in Soil						
Our Reference		333165-37	333165-38	333165-40	333165-42	333165-44
Your Reference	UNITS	TP116	TP117	TP118	TP119	TP120
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	6/09/2023	6/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	22/09/2023	20/09/2023	22/09/2023	20/09/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
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	0.2	1.0	0.1	2.2
Anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	0.4
Fluoranthene	mg/kg	<0.1	0.5	2.5	0.4	5.2
Pyrene	mg/kg	<0.1	0.5	2.4	0.4	4.9
Benzo(a)anthracene	mg/kg	<0.1	0.1	0.8	0.1	1.6
Chrysene	mg/kg	<0.1	0.2	0.8	0.1	1.6
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.4	2	0.4	3.8
Benzo(a)pyrene	mg/kg	<0.05	0.2	1.3	0.2	2.8
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	0.7	0.1	1.5
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.1	<0.1	0.2
Benzo(g,h,i)perylene	mg/kg	<0.1	0.2	0.9	0.2	2.0
Total +ve PAH's	mg/kg	<0.05	2.4	13	2.1	27
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	1.8	<0.5	3.8
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	1.8	<0.5	3.8
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	1.8	<0.5	3.8
Surrogate p-Terphenyl-d14	%	101	104	101	106	102

PAHs in Soil						
Our Reference		333165-45	333165-46	333165-48	333165-50	333165-52
Your Reference	UNITS	TP120	TP121	TP122	TP123	TP124
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	22/09/2023	20/09/2023	20/09/2023	22/09/2023
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	0.2	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.3	0.3	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.7	0.7	<0.1	<0.1
Pyrene	mg/kg	<0.1	0.7	0.7	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.2	0.2	<0.1	<0.1
Chrysene	mg/kg	<0.1	0.2	0.2	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.5	0.5	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.3	0.4	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	0.2	<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	0.3	0.3	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	3.5	3.4	<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	0.6	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	104	102	104	104	98

PAHs in Soil						
Our Reference		333165-53	333165-55	333165-56	333165-59	333165-60
Your Reference	UNITS	TP125	TP125	BH126	TP127	TP127
Depth		0-0.1	0.7-0.8	0.02-0.2	0-0.1	0.3-0.4
Date Sampled		8/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023	22/09/2023	20/09/2023	20/09/2023
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	0.2	<0.1	<0.1	0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.6	<0.1	<0.1	0.3	<0.1
Pyrene	mg/kg	0.5	<0.1	<0.1	0.3	<0.1
Benzo(a)anthracene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.2	<0.1	<0.1	0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.4	<0.2	<0.2	0.3	<0.2
Benzo(a)pyrene	mg/kg	0.3	<0.05	<0.05	0.2	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	<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	0.2	<0.1	<0.1	0.1	<0.1
Total +ve PAH's	mg/kg	2.8	<0.05	<0.05	1.5	<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	102	101	107	113

PAHs in Soil						
Our Reference		333165-61	333165-63	333165-65	333165-66	333165-67
Your Reference	UNITS	TP128	TP129	TP130	TP130	TP131
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	0.2	0.2	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.6	0.7	<0.1	<0.1
Pyrene	mg/kg	0.1	0.6	0.7	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.2	0.2	<0.1	<0.1
Chrysene	mg/kg	0.1	0.2	0.2	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.5	0.6	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.06	0.2	0.3	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	0.2	<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	0.2	0.3	<0.1	<0.1
Total +ve PAH's	mg/kg	0.4	2.9	3.4	<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	%	103	103	102	100	101

PAHs in Soil						
Our Reference		333165-69	333165-71	333165-73	333165-75	333165-77
Your Reference	UNITS	TP132	TP133	TP134	TP135	TP136
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	22/09/2023	20/09/2023	22/09/2023	20/09/2023
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	0.3	1.2	0.3	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.8	2.6	1.2	0.2
Pyrene	mg/kg	<0.1	0.7	2.4	1.3	0.2
Benzo(a)anthracene	mg/kg	<0.1	0.2	0.8	0.5	<0.1
Chrysene	mg/kg	<0.1	0.3	0.8	0.5	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.6	2	1	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.3	1.2	0.71	0.08
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	0.6	0.5	<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	0.3	0.8	0.7	<0.1
Total +ve PAH's	mg/kg	<0.05	3.8	12	7.0	0.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	1.6	1	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	0.5	1.6	1.0	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	0.6	1.6	1.1	<0.5
Surrogate p-Terphenyl-d14	%	82	101	110	99	110

PAHs in Soil						
Our Reference		333165-78	333165-80	333165-82	333165-84	333165-85
Your Reference	UNITS	TP136	TP137	TP138	TP139	TP139
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.2-0.3
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	25/09/2023	25/09/2023	25/09/2023
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	0.2	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.2	0.1	0.4	<0.1
Pyrene	mg/kg	0.1	0.2	0.1	0.4	<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	0.4	<0.2
Benzo(a)pyrene	mg/kg	0.07	0.08	<0.05	0.2	<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	0.2	<0.1
Total +ve PAH's	mg/kg	0.4	0.4	0.2	2.2	<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	99	102	102	96

PAHs in Soil						
Our Reference		333165-86	333165-88	333165-89	333165-92	333165-93
Your Reference	UNITS	TP140	TP140	TP141	TP142	TP142
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		11/09/2023	11/09/2023	12/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.2	1.3	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.4	3.6	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.4	3.4	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.1	1.1	<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	0.3	2.9	<0.2
Benzo(a)pyrene	mg/kg	0.05	<0.05	0.2	2.0	0.07
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.1	1.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.2	1.4	<0.1
Total +ve PAH's	mg/kg	0.05	<0.05	2.0	19	0.07
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	2.7	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	2.7	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	2.7	<0.5
Surrogate p-Terphenyl-d14	%	106	96	96	106	107

PAHs in Soil						
Our Reference		333165-94	333165-95	333165-97	333165-98	333165-100
Your Reference	UNITS	TP143	TP143	TP144	TP144	TP145
Depth		0-0.1	0.2-0.3	0-0.1	0.2-0.3	0-0.1
Date Sampled		11/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	0.5	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	1.2	0.2	0.2	<0.1	0.1
Pyrene	mg/kg	1.2	0.2	0.2	<0.1	0.1
Benzo(a)anthracene	mg/kg	0.4	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.4	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.9	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.56	0.06	0.07	<0.05	0.06
Indeno(1,2,3-c,d)pyrene	mg/kg	0.4	<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	0.5	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	6.1	0.4	0.4	<0.05	0.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	0.7	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	0.8	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	0.8	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	93	84	87	114	88

PAHs in Soil						
Our Reference		333165-101	333165-102	333165-103	333165-104	333165-106
Your Reference	UNITS	TP145	TP146	TP146	TP147	TP147
Depth		0.4-0.5	0-0.05	0.3-0.4	0-0.1	0.6-0.7
Date Sampled		8/09/2023	7/09/2023	7/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.7
Fluorene	mg/kg	0.4	<0.1	<0.1	<0.1	0.5
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	0.2	9.4
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	1.4
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.6	17
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.6	16
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	5.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.2	5.0
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.4	22
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.3	6.8
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	3.8
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.8
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.2	5.8
Total +ve PAH's	mg/kg	0.4	<0.05	<0.05	2.9	95
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	11
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	11
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	11
Surrogate p-Terphenyl-d14	%	110	109	107	89	87

PAHs in Soil						
Our Reference		333165-108	333165-110	333165-112	333165-113	333165-114
Your Reference	UNITS	TP148	TP149	TP149	TP149	TP150
Depth		0-0.1	0-0.1	0.5-0.6	0.7-0.8	0-0.1
Date Sampled		8/09/2023	8/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	0.9	<0.1	0.3
Anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.2	2.0	<0.1	0.9
Pyrene	mg/kg	<0.1	0.2	2.0	<0.1	0.8
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.6	<0.1	0.3
Chrysene	mg/kg	<0.1	0.1	0.7	<0.1	0.3
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.2	1	<0.2	0.6
Benzo(a)pyrene	mg/kg	<0.05	0.1	0.87	<0.05	0.4
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.6	<0.1	0.2
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	0.7	<0.1	0.3
Total +ve PAH's	mg/kg	<0.05	1.0	9.8	<0.05	4.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	1.1	<0.5	0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	1.2	<0.5	0.6
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	1.2	<0.5	0.6
Surrogate p-Terphenyl-d14	%	88	83	92	110	88

PAHs in Soil						
Our Reference		333165-116	333165-118	333165-119	333165-121	333165-122
Your Reference	UNITS	TP151	TP152	TP153	TP153	TP154
Depth		0-0.1	0-0.1	0-0.1	0.6-0.7	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	12/09/2023	12/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Naphthalene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.3	12	<0.1	0.8
Anthracene	mg/kg	<0.1	<0.1	1.8	<0.1	0.2
Fluoranthene	mg/kg	<0.1	0.6	33	<0.1	2.9
Pyrene	mg/kg	<0.1	0.6	32	<0.1	2.9
Benzo(a)anthracene	mg/kg	<0.1	0.2	10	<0.1	1.1
Chrysene	mg/kg	<0.1	0.2	11	<0.1	1.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.4	47	<0.2	2.4
Benzo(a)pyrene	mg/kg	<0.05	0.3	15	<0.05	1.5
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	8.6	<0.1	0.9
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	1.7	<0.1	0.2
Benzo(g,h,i)perylene	mg/kg	<0.1	0.2	11	<0.1	1.3
Total +ve PAH's	mg/kg	<0.05	2.9	190	<0.05	15
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	24	<0.5	2.1
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	24	<0.5	2.1
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	24	<0.5	2.1
Surrogate p-Terphenyl-d14	%	95	94	87	93	88

PAHs in Soil						
Our Reference		333165-124	333165-125	333165-126	333165-128	333165-130
Your Reference	UNITS	BH155	BH155	BH155	TP156	BH157
Depth		0.05-0.2	0.2-0.5	0.5-0.8	0-0.1	0.03-0.3
Date Sampled		13/09/2023	13/09/2023	13/09/2023	8/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Naphthalene	mg/kg	<0.1	1.5	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	0.5	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	2.9	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	2.6	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	1.2	29	<0.1	1	0.3
Anthracene	mg/kg	0.2	7.7	<0.1	0.2	<0.1
Fluoranthene	mg/kg	3.6	39	<0.1	1.9	0.9
Pyrene	mg/kg	3.5	35	<0.1	1.8	0.8
Benzo(a)anthracene	mg/kg	1.3	11	<0.1	0.6	0.3
Chrysene	mg/kg	1.3	9.6	<0.1	0.6	0.3
Benzo(b,j+k)fluoranthene	mg/kg	3.2	38	<0.2	1	0.7
Benzo(a)pyrene	mg/kg	2.1	12	<0.05	0.81	0.3
Indeno(1,2,3-c,d)pyrene	mg/kg	1.2	7.0	<0.1	0.5	0.3
Dibenzo(a,h)anthracene	mg/kg	0.2	0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	1.5	8.5	<0.1	0.6	0.4
Total +ve PAH's	mg/kg	19	200	<0.05	9.2	4.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	2.9	18	<0.5	1.1	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	2.9	18	<0.5	1.1	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	2.9	18	<0.5	1.2	0.5
Surrogate p-Terphenyl-d14	%	109	88	91	92	93

PAHs in Soil						
Our Reference		333165-133	333165-134	333165-135	333165-139	333165-140
Your Reference	UNITS	BH158	BH158	TP159	TP160	TP160
Depth		0.04-0.3	0.3-0.6	0-0.1	0-0.1	0.2-0.3
Date Sampled		13/09/2023	13/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	0.4	<0.1	<0.1	0.2	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.8	<0.1	<0.1	0.6	<0.1
Pyrene	mg/kg	0.7	<0.1	<0.1	0.6	<0.1
Benzo(a)anthracene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Chrysene	mg/kg	0.2	<0.1	<0.1	0.2	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.5	<0.2	<0.2	0.4	<0.2
Benzo(a)pyrene	mg/kg	0.3	<0.05	<0.05	0.3	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	<0.1	<0.1	0.2	<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	0.2	<0.1	<0.1	0.2	<0.1
Total +ve PAH's	mg/kg	3.5	<0.05	<0.05	2.8	<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	%	106	110	84	106	107

PAHs in Soil						
Our Reference		333165-141	333165-143	333165-145	333165-146	333165-148
Your Reference	UNITS	TP161	BH162	BH162	TP163	SDUP106
Depth		0-0.1	0.04-0.2	1.2-1.4	0-0.1	-
Date Sampled		11/09/2023	13/09/2023	13/09/2023	8/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	1.1	<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	0.4	5.5	0.4	0.4	1.7
Anthracene	mg/kg	<0.1	1.4	<0.1	<0.1	0.4
Fluoranthene	mg/kg	1.7	18	0.7	1.1	4.5
Pyrene	mg/kg	1.7	18	0.6	1.1	4.4
Benzo(a)anthracene	mg/kg	0.6	6.7	0.2	0.3	1.4
Chrysene	mg/kg	0.6	7.5	0.2	0.3	1.5
Benzo(b,j+k)fluoranthene	mg/kg	1	36	0.4	0.7	3.3
Benzo(a)pyrene	mg/kg	0.87	11	0.2	0.5	2.1
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	6.8	0.1	0.3	1.4
Dibenzo(a,h)anthracene	mg/kg	<0.1	1.5	<0.1	<0.1	0.2
Benzo(g,h,i)perylene	mg/kg	0.8	9.1	0.2	0.4	1.9
Total +ve PAH's	mg/kg	8.6	120	2.8	5.0	23
Benzo(a)pyrene TEQ calc (zero)	mg/kg	1.1	18	<0.5	0.6	3.0
Benzo(a)pyrene TEQ calc(half)	mg/kg	1.2	18	<0.5	0.7	3.0
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	1.2	18	<0.5	0.7	3.0
Surrogate p-Terphenyl-d14	%	85	92	112	96	89

PAHs in Soil						
Our Reference		333165-149	333165-150	333165-151	333165-152	333165-153
Your Reference	UNITS	SDUP107	SDUP108	SDUP109	SDUP110	TB-S101
Depth		-	-	-	-	-
Date Sampled		7/09/2023	8/09/2023	11/09/2023	11/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	0.2	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	0.6	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.6	0.2	1.6	0.1	<0.1
Pyrene	mg/kg	0.5	0.2	1.6	0.1	<0.1
Benzo(a)anthracene	mg/kg	0.2	<0.1	0.5	<0.1	<0.1
Chrysene	mg/kg	0.2	<0.1	0.6	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.5	<0.2	1	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.3	0.09	0.76	0.08	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	<0.1	0.5	<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	0.2	<0.1	0.7	<0.1	<0.1
Total +ve PAH's	mg/kg	3.1	0.5	8.1	0.3	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	1	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	1.0	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	1.1	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	109	90	94	107	112

PAHs in Soil		
Our Reference		333165-154
Your Reference	UNITS	TB-S102
Depth		-
Date Sampled		11/09/2023
Type of sample		Soil
Date extracted	-	18/09/2023
Date analysed	-	25/09/2023
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	109

Organochlorine Pesticides in soil						
Our Reference		333165-3	333165-8	333165-13	333165-17	333165-21
Your Reference	UNITS	TP102	TP104	TP106	TP108	TP110
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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
Mirex	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	%	105	106	105	109	109

Organochlorine Pesticides in soil						
Our Reference		333165-25	333165-31	333165-33	333165-38	333165-42
Your Reference	UNITS	TP112	TP114	TP115	TP117	TP119
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	7/09/2023	7/09/2023	6/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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
Mirex	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	103	103	103	106

Organochlorine Pesticides in soil						
Our Reference		333165-46	333165-52	333165-56	333165-61	333165-65
Your Reference	UNITS	TP121	TP124	BH126	TP128	TP130
Depth		0-0.1	0-0.1	0.02-0.2	0-0.1	0-0.1
Date Sampled		7/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	0.4	<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
Mirex	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	%	101	100	107	108	108

Organochlorine Pesticides in soil						
Our Reference		333165-69	333165-71	333165-75	333165-80	333165-84
Your Reference	UNITS	TP132	TP133	TP135	TP137	TP139
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	22/09/2023	22/09/2023	22/09/2023	25/09/2023
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
Mirex	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	106	108	106	107

Organochlorine Pesticides in soil						
Our Reference		333165-89	333165-94	333165-100	333165-104	333165-108
Your Reference	UNITS	TP141	TP143	TP145	TP147	TP148
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		12/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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
Mirex	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	%	103	95	85	88	91

Organochlorine Pesticides in soil						
Our Reference		333165-114	333165-118	333165-122	333165-130	333165-135
Your Reference	UNITS	TP150	TP152	TP154	BH157	TP159
Depth		0-0.1	0-0.1	0-0.1	0.03-0.3	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	13/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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
Mirex	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	91	86	88	89

Organochlorine Pesticides in soil					
Our Reference		333165-141	333165-146	333165-150	333165-151
Your Reference	UNITS	TP161	TP163	SDUP108	SDUP109
Depth		0-0.1	0-0.1	-	-
Date Sampled		11/09/2023	8/09/2023	8/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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
Mirex	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	%	87	91	87	88

Organophosphorus Pesticides in Soil						
Our Reference		333165-3	333165-8	333165-13	333165-17	333165-21
Your Reference	UNITS	TP102	TP104	TP106	TP108	TP110
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	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
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-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
Fenthion	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
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	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
Phosalone	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
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	105	106	105	109	109

Organophosphorus Pesticides in Soil						
Our Reference		333165-25	333165-31	333165-33	333165-38	333165-42
Your Reference	UNITS	TP112	TP114	TP115	TP117	TP119
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	7/09/2023	7/09/2023	6/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	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
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-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
Fenthion	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
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	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
Phosalone	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
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	103	103	103	106

Organophosphorus Pesticides in Soil						
Our Reference		333165-46	333165-52	333165-56	333165-61	333165-65
Your Reference	UNITS	TP121	TP124	BH126	TP128	TP130
Depth		0-0.1	0-0.1	0.02-0.2	0-0.1	0-0.1
Date Sampled		7/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	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
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-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
Fenthion	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
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	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
Phosalone	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
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	100	107	108	108

Organophosphorus Pesticides in Soil						
Our Reference		333165-69	333165-71	333165-75	333165-80	333165-84
Your Reference	UNITS	TP132	TP133	TP135	TP137	TP139
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	22/09/2023	22/09/2023	22/09/2023	25/09/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	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
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-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
Fenthion	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
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	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
Phosalone	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
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	106	108	106	107

Organophosphorus Pesticides in Soil						
Our Reference		333165-89	333165-94	333165-100	333165-104	333165-108
Your Reference	UNITS	TP141	TP143	TP145	TP147	TP148
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		12/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	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
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-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
Fenthion	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
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	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
Phosalone	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
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	103	95	85	88	108

Organophosphorus Pesticides in Soil						
Our Reference		333165-114	333165-118	333165-122	333165-130	333165-135
Your Reference	UNITS	TP150	TP152	TP154	BH157	TP159
Depth		0-0.1	0-0.1	0-0.1	0.03-0.3	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	13/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	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
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-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
Fenthion	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
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	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
Phosalone	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
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	91	86	88	89

Organophosphorus Pesticides in Soil					
Our Reference		333165-141	333165-146	333165-150	333165-151
Your Reference	UNITS	TP161	TP163	SDUP108	SDUP109
Depth		0-0.1	0-0.1	-	-
Date Sampled		11/09/2023	8/09/2023	8/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	87	91	87	88

PCBs in Soil						
Our Reference		333165-3	333165-8	333165-13	333165-17	333165-21
Your Reference	UNITS	TP102	TP104	TP106	TP108	TP110
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	<0.1	<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	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	105	106	105	109	109

PCBs in Soil						
Our Reference		333165-25	333165-31	333165-33	333165-38	333165-42
Your Reference	UNITS	TP112	TP114	TP115	TP117	TP119
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	7/09/2023	7/09/2023	6/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	22/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	<0.1	<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	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	103	103	103	106

PCBs in Soil						
Our Reference		333165-46	333165-52	333165-56	333165-61	333165-65
Your Reference	UNITS	TP121	TP124	BH126	TP128	TP130
Depth		0-0.1	0-0.1	0.02-0.2	0-0.1	0-0.1
Date Sampled		7/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	<0.1	<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	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	100	107	108	108

PCBs in Soil						
Our Reference		333165-69	333165-71	333165-75	333165-80	333165-84
Your Reference	UNITS	TP132	TP133	TP135	TP137	TP139
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	22/09/2023	22/09/2023	22/09/2023	25/09/2023
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	<0.1	<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	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	106	108	106	107

PCBs in Soil						
Our Reference		333165-89	333165-94	333165-100	333165-104	333165-108
Your Reference	UNITS	TP141	TP143	TP145	TP147	TP148
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		12/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	<0.1	<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	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	103	95	85	88	91

PCBs in Soil						
Our Reference		333165-114	333165-118	333165-122	333165-130	333165-135
Your Reference	UNITS	TP150	TP152	TP154	BH157	TP159
Depth		0-0.1	0-0.1	0-0.1	0.03-0.3	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	13/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023	25/09/2023
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	<0.1	<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	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	91	86	88	89

PCBs in Soil					
Our Reference		333165-141	333165-146	333165-150	333165-151
Your Reference	UNITS	TP161	TP163	SDUP108	SDUP109
Depth		0-0.1	0-0.1	-	-
Date Sampled		11/09/2023	8/09/2023	8/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	25/09/2023	25/09/2023	25/09/2023	25/09/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	87	91	87	88

Acid Extractable metals in soil						
Our Reference		333165-1	333165-2	333165-3	333165-6	333165-8
Your Reference	UNITS	TP101	TP101	TP102	TP103	TP104
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	6	6	6	5	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	40	51	34	37	34
Copper	mg/kg	65	72	58	43	58
Lead	mg/kg	21	13	20	28	21
Mercury	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	11	12	10	9	10
Zinc	mg/kg	36	26	36	32	39

Acid Extractable metals in soil						
Our Reference		333165-11	333165-13	333165-14	333165-15	333165-17
Your Reference	UNITS	TP105	TP106	TP106	TP107	TP108
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	4	5	5	6	11
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	26	33	44	39	46
Copper	mg/kg	52	72	100	74	81
Lead	mg/kg	21	18	8	14	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Nickel	mg/kg	8	11	9	10	11
Zinc	mg/kg	38	43	24	39	49

Acid Extractable metals in soil						
Our Reference		333165-18	333165-19	333165-21	333165-23	333165-25
Your Reference	UNITS	TP108	TP109	TP110	TP111	TP112
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	8	8	10	5	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	46	57	59	25	21
Copper	mg/kg	100	140	190	100	320
Lead	mg/kg	9	10	10	12	35
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Nickel	mg/kg	10	13	12	7	10
Zinc	mg/kg	30	30	30	33	68

Acid Extractable metals in soil						
Our Reference		333165-27	333165-29	333165-31	333165-33	333165-36
Your Reference	UNITS	TP113	TP113	TP114	TP115	TP116
Depth		0-0.1	0.9-1.0	0-0.1	0-0.1	0-0.05
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	7	7	8	23	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	47	29	33	27	29
Copper	mg/kg	250	340	170	56	61
Lead	mg/kg	9	21	79	32	19
Mercury	mg/kg	<0.1	<0.1	<0.1	0.5	0.1
Nickel	mg/kg	13	11	15	11	9
Zinc	mg/kg	53	280	77	140	44

Acid Extractable metals in soil						
Our Reference		333165-37	333165-38	333165-40	333165-42	333165-44
Your Reference	UNITS	TP116	TP117	TP118	TP119	TP120
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	6/09/2023	6/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	5	5	5	4	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	40	36	36	44	37
Copper	mg/kg	110	66	62	43	54
Lead	mg/kg	6	16	21	14	44
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	10	10	10	10	9
Zinc	mg/kg	27	38	42	37	36

Acid Extractable metals in soil						
Our Reference		333165-45	333165-46	333165-48	333165-50	333165-52
Your Reference	UNITS	TP120	TP121	TP122	TP123	TP124
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	5	5	6	12	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	45	40	40	140	13
Copper	mg/kg	80	64	86	310	120
Lead	mg/kg	11	14	18	6	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	10	9	30	5
Zinc	mg/kg	19	38	42	64	27

Acid Extractable metals in soil						
Our Reference		333165-53	333165-55	333165-56	333165-59	333165-60
Your Reference	UNITS	TP125	TP125	BH126	TP127	TP127
Depth		0-0.1	0.7-0.8	0.02-0.2	0-0.1	0.3-0.4
Date Sampled		8/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	19	9	4	6	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	31	61	11	35	71
Copper	mg/kg	240	210	4	84	120
Lead	mg/kg	21	10	4	34	12
Mercury	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	11	12	1	9	11
Zinc	mg/kg	54	22	3	59	23

Acid Extractable metals in soil						
Our Reference		333165-61	333165-63	333165-65	333165-66	333165-67
Your Reference	UNITS	TP128	TP129	TP130	TP130	TP131
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	7	6	9	8	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	45	53	56	110	18
Copper	mg/kg	69	60	80	160	330
Lead	mg/kg	11	18	14	12	470
Mercury	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	12	15	19	9
Zinc	mg/kg	30	35	31	24	190

Acid Extractable metals in soil						
Our Reference		333165-69	333165-71	333165-73	333165-75	333165-77
Your Reference	UNITS	TP132	TP133	TP134	TP135	TP136
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	5	<4	5	<4	5
Cadmium	mg/kg	<0.4	0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	25	22	25	15
Copper	mg/kg	210	220	160	190	95
Lead	mg/kg	32	120	44	37	37
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	9	8	9	7
Zinc	mg/kg	68	290	120	71	100

Acid Extractable metals in soil						
Our Reference		333165-78	333165-80	333165-82	333165-84	333165-85
Your Reference	UNITS	TP136	TP137	TP138	TP139	TP139
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.2-0.3
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	5	5	5	5	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	26	20	26	21	37
Copper	mg/kg	350	210	260	210	390
Lead	mg/kg	15	26	43	98	180
Mercury	mg/kg	<0.1	<0.1	<0.1	0.1	0.2
Nickel	mg/kg	11	9	11	8	15
Zinc	mg/kg	93	67	100	230	400

Acid Extractable metals in soil						
Our Reference		333165-86	333165-88	333165-89	333165-92	333165-93
Your Reference	UNITS	TP140	TP140	TP141	TP142	TP142
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		11/09/2023	11/09/2023	12/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	13	5	<4	6	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	20	12	31	110
Copper	mg/kg	96	480	28	54	150
Lead	mg/kg	23	6	32	27	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	12	5	7	16
Zinc	mg/kg	76	51	46	29	23

Acid Extractable metals in soil						
Our Reference		333165-94	333165-95	333165-97	333165-98	333165-100
Your Reference	UNITS	TP143	TP143	TP144	TP144	TP145
Depth		0-0.1	0.2-0.3	0-0.1	0.2-0.3	0-0.1
Date Sampled		11/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	5	7	5	14	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	20	37	27	10	44
Copper	mg/kg	150	320	50	6	58
Lead	mg/kg	15	11	54	6	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	12	8	3	10
Zinc	mg/kg	40	32	32	5	26

Acid Extractable metals in soil						
Our Reference		333165-101	333165-102	333165-103	333165-104	333165-106
Your Reference	UNITS	TP145	TP146	TP146	TP147	TP147
Depth		0.4-0.5	0-0.05	0.3-0.4	0-0.1	0.6-0.7
Date Sampled		8/09/2023	7/09/2023	7/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	6	7	8	<4	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	81	53	21	19	28
Copper	mg/kg	94	170	500	15	130
Lead	mg/kg	12	14	4	13	48
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	13	10	4	18
Zinc	mg/kg	20	51	25	26	170

Acid Extractable metals in soil						
Our Reference		333165-108	333165-110	333165-112	333165-113	333165-114
Your Reference	UNITS	TP148	TP149	TP149	TP149	TP150
Depth		0-0.1	0-0.1	0.5-0.6	0.7-0.8	0-0.1
Date Sampled		8/09/2023	8/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	<4	8	12	9	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	19	62	110	46
Copper	mg/kg	14	25	120	180	86
Lead	mg/kg	8	48	29	14	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	6	24	22	14
Zinc	mg/kg	25	57	68	30	36

Acid Extractable metals in soil						
Our Reference		333165-116	333165-118	333165-119	333165-121	333165-122
Your Reference	UNITS	TP151	TP152	TP153	TP153	TP154
Depth		0-0.1	0-0.1	0-0.1	0.6-0.7	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	12/09/2023	12/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	7	14	5	9	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	34	29	120	18
Copper	mg/kg	11	57	39	160	27
Lead	mg/kg	15	14	20	11	11
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	6	17	8	16	5
Zinc	mg/kg	19	44	34	23	21

Acid Extractable metals in soil						
Our Reference		333165-124	333165-125	333165-126	333165-128	333165-130
Your Reference	UNITS	BH155	BH155	BH155	TP156	BH157
Depth		0.05-0.2	0.2-0.5	0.5-0.8	0-0.1	0.03-0.3
Date Sampled		13/09/2023	13/09/2023	13/09/2023	8/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	10	7	7	8	10
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	62	110	48	12
Copper	mg/kg	12	140	160	140	21
Lead	mg/kg	5	77	13	39	16
Mercury	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Nickel	mg/kg	2	19	21	14	8
Zinc	mg/kg	6	110	25	110	290

Acid Extractable metals in soil						
Our Reference		333165-133	333165-134	333165-135	333165-139	333165-140
Your Reference	UNITS	BH158	BH158	TP159	TP160	TP160
Depth		0.04-0.3	0.3-0.6	0-0.1	0-0.1	0.2-0.3
Date Sampled		13/09/2023	13/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	10	6	<4	5	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	19	15	11	19	18
Copper	mg/kg	230	370	19	270	440
Lead	mg/kg	26	3	13	69	5
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	9	10	4	8	10
Zinc	mg/kg	39	33	37	77	22

Acid Extractable metals in soil						
Our Reference		333165-141	333165-143	333165-145	333165-146	333165-148
Your Reference	UNITS	TP161	BH162	BH162	TP163	SDUP106
Depth		0-0.1	0.04-0.2	1.2-1.4	0-0.1	-
Date Sampled		11/09/2023	13/09/2023	13/09/2023	8/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	7	7	7	7	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	21	17	74	61	32
Copper	mg/kg	160	250	130	66	52
Lead	mg/kg	35	6	12	13	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	8	11	14	9
Zinc	mg/kg	57	26	21	22	31

Acid Extractable metals in soil						
Our Reference		333165-149	333165-150	333165-151	333165-152	333165-153
Your Reference	UNITS	SDUP107	SDUP108	SDUP109	SDUP110	TB-S101
Depth		-	-	-	-	-
Date Sampled		7/09/2023	8/09/2023	11/09/2023	11/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Arsenic	mg/kg	6	8	5	7	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	33	49	20	40	3
Copper	mg/kg	80	65	130	460	1
Lead	mg/kg	21	21	16	67	2
Mercury	mg/kg	0.1	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	10	10	7	16	<1
Zinc	mg/kg	49	27	39	150	1

Acid Extractable metals in soil			
Our Reference		333165-154	333165-161
Your Reference	UNITS	TB-S102	TP124 - [TRIPLICATE]
Depth		-	0-0.1
Date Sampled		11/09/2023	8/09/2023
Type of sample		Soil	Soil
Date prepared	-	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023
Arsenic	mg/kg	<4	11
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	3	17
Copper	mg/kg	<1	140
Lead	mg/kg	3	11
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	<1	6
Zinc	mg/kg	1	33

Moisture						
Our Reference		333165-1	333165-2	333165-3	333165-6	333165-8
Your Reference	UNITS	TP101	TP101	TP102	TP103	TP104
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	10	11	11	17	5.3

Moisture						
Our Reference		333165-11	333165-13	333165-14	333165-15	333165-17
Your Reference	UNITS	TP105	TP106	TP106	TP107	TP108
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	13	9.1	9.4	16	8.9

Moisture						
Our Reference		333165-18	333165-19	333165-21	333165-23	333165-25
Your Reference	UNITS	TP108	TP109	TP110	TP111	TP112
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	7.6	15	13	12	8.4

Moisture						
Our Reference		333165-27	333165-29	333165-31	333165-33	333165-36
Your Reference	UNITS	TP113	TP113	TP114	TP115	TP116
Depth		0-0.1	0.9-1.0	0-0.1	0-0.1	0-0.05
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	10	8.5	18	31	11

Moisture						
Our Reference		333165-37	333165-38	333165-40	333165-42	333165-44
Your Reference	UNITS	TP116	TP117	TP118	TP119	TP120
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	6/09/2023	6/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	6.6	14	8.1	17	7.0

Moisture						
Our Reference		333165-45	333165-46	333165-48	333165-50	333165-52
Your Reference	UNITS	TP120	TP121	TP122	TP123	TP124
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	13	10	8.8	15	6.0

Moisture						
Our Reference		333165-53	333165-55	333165-56	333165-59	333165-60
Your Reference	UNITS	TP125	TP125	BH126	TP127	TP127
Depth		0-0.1	0.7-0.8	0.02-0.2	0-0.1	0.3-0.4
Date Sampled		8/09/2023	8/09/2023	13/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	28	20	1.6	13	16

Moisture						
Our Reference		333165-61	333165-63	333165-65	333165-66	333165-67
Your Reference	UNITS	TP128	TP129	TP130	TP130	TP131
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	7/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	12	16	12	17	8.2

Moisture						
Our Reference		333165-69	333165-71	333165-73	333165-75	333165-77
Your Reference	UNITS	TP132	TP133	TP134	TP135	TP136
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	12	7.2	27	8.2	3.7

Moisture						
Our Reference		333165-78	333165-80	333165-82	333165-84	333165-85
Your Reference	UNITS	TP136	TP137	TP138	TP139	TP139
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.2-0.3
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	13	9.7	13	21	18

Moisture						
Our Reference		333165-86	333165-88	333165-89	333165-92	333165-93
Your Reference	UNITS	TP140	TP140	TP141	TP142	TP142
Depth		0-0.1	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		11/09/2023	11/09/2023	12/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	20	17	21	14	17

Moisture						
Our Reference		333165-94	333165-95	333165-97	333165-98	333165-100
Your Reference	UNITS	TP143	TP143	TP144	TP144	TP145
Depth		0-0.1	0.2-0.3	0-0.1	0.2-0.3	0-0.1
Date Sampled		11/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	27	16	9.2	3.8	9.6

Moisture						
Our Reference		333165-101	333165-102	333165-103	333165-104	333165-106
Your Reference	UNITS	TP145	TP146	TP146	TP147	TP147
Depth		0.4-0.5	0-0.05	0.3-0.4	0-0.1	0.6-0.7
Date Sampled		8/09/2023	7/09/2023	7/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	11	5.6	9.1	23	28

Moisture						
Our Reference		333165-108	333165-110	333165-112	333165-113	333165-114
Your Reference	UNITS	TP148	TP149	TP149	TP149	TP150
Depth		0-0.1	0-0.1	0.5-0.6	0.7-0.8	0-0.1
Date Sampled		8/09/2023	8/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	5.3	13	16	23	14

Moisture						
Our Reference		333165-116	333165-118	333165-119	333165-121	333165-122
Your Reference	UNITS	TP151	TP152	TP153	TP153	TP154
Depth		0-0.1	0-0.1	0-0.1	0.6-0.7	0-0.1
Date Sampled		8/09/2023	8/09/2023	12/09/2023	12/09/2023	12/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	6.5	7.5	10	20	9.3

Moisture						
Our Reference		333165-124	333165-125	333165-126	333165-128	333165-130
Your Reference	UNITS	BH155	BH155	BH155	TP156	BH157
Depth		0.05-0.2	0.2-0.5	0.5-0.8	0-0.1	0.03-0.3
Date Sampled		13/09/2023	13/09/2023	13/09/2023	8/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	5.5	17	17	21	8.2

Moisture						
Our Reference		333165-133	333165-134	333165-135	333165-139	333165-140
Your Reference	UNITS	BH158	BH158	TP159	TP160	TP160
Depth		0.04-0.3	0.3-0.6	0-0.1	0-0.1	0.2-0.3
Date Sampled		13/09/2023	13/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	10	6.3	24	6.2	15

Moisture						
Our Reference		333165-141	333165-143	333165-145	333165-146	333165-148
Your Reference	UNITS	TP161	BH162	BH162	TP163	SDUP106
Depth		0-0.1	0.04-0.2	1.2-1.4	0-0.1	-
Date Sampled		11/09/2023	13/09/2023	13/09/2023	8/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	8.4	6.6	18	5.5	10

Moisture						
Our Reference		333165-149	333165-150	333165-151	333165-152	333165-153
Your Reference	UNITS	SDUP107	SDUP108	SDUP109	SDUP110	TB-S101
Depth		-	-	-	-	-
Date Sampled		7/09/2023	8/09/2023	11/09/2023	11/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/09/2023	18/09/2023	18/09/2023	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Moisture	%	11	11	29	11	0.2

Moisture		
Our Reference		333165-154
Your Reference	UNITS	TB-S102
Depth		-
Date Sampled		11/09/2023
Type of sample		Soil
Date prepared	-	18/09/2023
Date analysed	-	19/09/2023
Moisture	%	0.2

Asbestos ID - soils NEPM - ASB-001						
Our Reference		333165-1	333165-3	333165-6	333165-8	333165-11
Your Reference	UNITS	TP101	TP102	TP103	TP104	TP105
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	715.87	677.2	616.35	855.4	620.18
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-13	333165-15	333165-17	333165-19	333165-23
Your Reference	UNITS	TP106	TP107	TP108	TP109	TP111
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	636.54	670.01	771.96	647.93	567.65
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Red coarse-grained soil & rocks	Brown coarse-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		333165-25	333165-27	333165-31	333165-33	333165-36
Your Reference	UNITS	TP112	TP113	TP114	TP115	TP116
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.05
Date Sampled		6/09/2023	7/09/2023	7/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	741.87	896.09	649.12	332.35	615.67
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Woodchip & coarse-grained soil & rocks	Brown coarse-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		333165-38	333165-40	333165-42	333165-44	333165-46
Your Reference	UNITS	TP117	TP118	TP119	TP120	TP121
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		6/09/2023	6/09/2023	7/09/2023	7/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	723.37	744.22	690.39	764.18	715.84
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-48	333165-52	333165-53	333165-56	333165-59
Your Reference	UNITS	TP122	TP124	TP125	BH126	TP127
Depth		0-0.1	0-0.1	0-0.1	0.02-0.2	0-0.1
Date Sampled		7/09/2023	8/09/2023	8/09/2023	13/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	696.58	975.25	614.93	1,081.34	704
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-61	333165-63	333165-65	333165-67	333165-69
Your Reference	UNITS	TP128	TP129	TP130	TP131	TP132
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	7/09/2023	7/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	635.01	607.03	791.73	685.76	914.66
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-71	333165-73	333165-75	333165-77	333165-80
Your Reference	UNITS	TP133	TP134	TP135	TP136	TP137
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	546.94	554.32	733.34	826.25	700.59
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-82	333165-84	333165-86	333165-89	333165-92
Your Reference	UNITS	TP138	TP139	TP140	TP141	TP142
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		11/09/2023	11/09/2023	11/09/2023	12/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	668.4	668.93	644.86	546.29	732.78
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-94	333165-95	333165-97	333165-98	333165-100
Your Reference	UNITS	TP143	TP143	TP144	TP144	TP145
Depth		0-0.1	0.2-0.3	0-0.1	0.2-0.3	0-0.1
Date Sampled		11/09/2023	11/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	514.9	754.51	580.86	1,000.43	638.36
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-102	333165-104	333165-106	333165-108	333165-110
Your Reference	UNITS	TP146	TP147	TP147	TP148	TP149
Depth		0-0.05	0-0.1	0.6-0.7	0-0.1	0-0.1
Date Sampled		7/09/2023	8/09/2023	8/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	1,040.96	627.24	549.41	739.81	721.53
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-112	333165-114	333165-116	333165-118	333165-119
Your Reference	UNITS	TP149	TP150	TP151	TP152	TP153
Depth		0.5-0.6	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		8/09/2023	8/09/2023	8/09/2023	8/09/2023	12/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	694.43	771.92	700.91	826.89	739
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-122	333165-124	333165-125	333165-128	333165-130
Your Reference	UNITS	TP154	BH155	BH155	TP156	BH157
Depth		0-0.1	0.05-0.2	0.2-0.5	0-0.1	0.03-0.3
Date Sampled		12/09/2023	13/09/2023	13/09/2023	8/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	941.02	861.6	736.86	645.52	963.6
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-133	333165-135	333165-139	333165-141	333165-143
Your Reference	UNITS	BH158	TP159	TP160	TP161	BH162
Depth		0.04-0.3	0-0.1	0-0.1	0-0.1	0.04-0.2
Date Sampled		13/09/2023	11/09/2023	11/09/2023	11/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
Sample mass tested	g	932.77	817.12	804.28	732.73	973.2
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-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		333165-146
Your Reference	UNITS	TP163
Depth		0-0.1
Date Sampled		8/09/2023
Type of sample		Soil
Date analysed	-	22/09/2023
Sample mass tested	g	759.72
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected
Total Asbestos#1	g/kg	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected
ACM >7mm Estimation*	g	–
FA and AF Estimation*	g	–
ACM >7mm Estimation*	%(w/w)	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001

Misc Inorg - Soil						
Our Reference		333165-42	333165-55	333165-85	333165-120	333165-145
Your Reference	UNITS	TP119	TP125	TP139	TP153	BH162
Depth		0-0.1	0.7-0.8	0.2-0.3	0.4-0.5	1.2-1.4
Date Sampled		7/09/2023	8/09/2023	11/09/2023	12/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
Date analysed	-	19/09/2023	19/09/2023	19/09/2023	19/09/2023	19/09/2023
pH 1:5 soil:water	pH Units	7.0	7.0	7.5	6.6	8.5

CEC						
Our Reference		333165-42	333165-55	333165-85	333165-120	333165-145
Your Reference	UNITS	TP119	TP125	TP139	TP153	BH162
Depth		0-0.1	0.7-0.8	0.2-0.3	0.4-0.5	1.2-1.4
Date Sampled		7/09/2023	8/09/2023	11/09/2023	12/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
Date analysed	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
Exchangeable Ca	meq/100g	6.6	8.9	21	6.5	28
Exchangeable K	meq/100g	0.8	0.2	0.2	0.3	0.2
Exchangeable Mg	meq/100g	3.2	4.9	6.1	5.2	6.2
Exchangeable Na	meq/100g	<0.1	0.2	0.3	0.5	0.2
Cation Exchange Capacity	meq/100g	11	14	28	13	34

Clay 50-120g						
Our Reference		333165-42	333165-55	333165-85	333165-120	333165-145
Your Reference	UNITS	TP119	TP125	TP139	TP153	BH162
Depth		0-0.1	0.7-0.8	0.2-0.3	0.4-0.5	1.2-1.4
Date Sampled		7/09/2023	8/09/2023	11/09/2023	12/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Date analysed	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
Clay in soils <2μm	% (w/w)	20	52	34	45	46

vTRH(C6-C10)/BTEXN in Water			
Our Reference		333165-155	333165-156
Your Reference	UNITS	FR-101	FR-102
Depth		-	-
Date Sampled		07/09/2023	13/09/2023
Type of sample		Water	Water
Date extracted	-	18/09/2023	18/09/2023
Date analysed	-	19/09/2023	19/09/2023
TRH C_6 - C_9	µg/L	<10	<10
TRH C_6 - C_{10}	µg/L	<10	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10
Benzene	µg/L	<1	<1
Toluene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
o-xylene	µg/L	<1	<1
Naphthalene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	104	104
Surrogate Toluene-d8	%	96	97
Surrogate 4-Bromofluorobenzene	%	103	102

svTRH (C10-C40) in Water			
Our Reference		333165-155	333165-156
Your Reference	UNITS	FR-101	FR-102
Depth		-	-
Date Sampled		07/09/2023	13/09/2023
Type of sample		Water	Water
Date extracted	-	18/09/2023	18/09/2023
Date analysed	-	20/09/2023	20/09/2023
TRH C_{10} - C_{14}	µg/L	<50	<50
TRH C_{15} - C_{28}	µg/L	<100	<100
TRH C_{29} - C_{36}	µg/L	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50
TRH >C_{10} - C_{16}	µg/L	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50
Surrogate o-Terphenyl	%	94	115

PAHs in Water			
Our Reference		333165-155	333165-156
Your Reference	UNITS	FR-101	FR-102
Depth		-	-
Date Sampled		07/09/2023	13/09/2023
Type of sample		Water	Water
Date extracted	-	22/09/2023	22/09/2023
Date analysed	-	25/09/2023	25/09/2023
Naphthalene	µg/L	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	93	101

Metals in Waters - Acid extractable			
Our Reference		333165-155	333165-156
Your Reference	UNITS	FR-101	FR-102
Depth		-	-
Date Sampled		07/09/2023	13/09/2023
Type of sample		Water	Water
Date prepared	-	19/09/2023	19/09/2023
Date analysed	-	20/09/2023	20/09/2023
Arsenic - Total	mg/L	<0.05	<0.05
Cadmium - Total	mg/L	<0.01	<0.01
Chromium - Total	mg/L	<0.01	<0.01
Copper - Total	mg/L	0.07	0.07
Lead - Total	mg/L	<0.03	<0.03
Mercury - Total	mg/L	<0.0005	<0.0005
Nickel - Total	mg/L	<0.02	<0.02
Zinc - Total	mg/L	<0.02	<0.02

Asbestos ID - materials		
Our Reference		333165-157
Your Reference	UNITS	FCF101
Depth		-
Date Sampled		12/09/2023
Type of sample		Material
Date analysed	-	21/09/2023
Mass / Dimension of Sample	-	45x30x3mm
Sample Description	-	Grey fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected
Trace Analysis	-	[NT]

Method ID	Methodology Summary
AS1289.3.6.3	Particle Size Distribution using in house method INORG-107 by way of sieving and/or hydrometer sedimentation testing. Clay fraction at <2µm reported.
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-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
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-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.
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.

Method ID	Methodology Summary
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.
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-022/025	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/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
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	Water samples are analysed directly 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.
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.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	333165-8
Date extracted	-			18/09/2023	3	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			20/09/2023	3	20/09/2023	20/09/2023		20/09/2023	25/09/2023
TRH C_6 - C_9	mg/kg	25	Org-023	<25	3	<25	<25	0	112	110
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	3	<25	<25	0	112	110
Benzene	mg/kg	0.2	Org-023	<0.2	3	<0.2	<0.2	0	104	104
Toluene	mg/kg	0.5	Org-023	<0.5	3	<0.5	<0.5	0	109	106
Ethylbenzene	mg/kg	1	Org-023	<1	3	<1	<1	0	111	109
m+p-xylene	mg/kg	2	Org-023	<2	3	<2	<2	0	118	115
o-Xylene	mg/kg	1	Org-023	<1	3	<1	<1	0	118	114
Naphthalene	mg/kg	1	Org-023	<1	3	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	103	3	96	88	9	99	96

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	333165-42
Date extracted	-			[NT]	21	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	21	25/09/2023	25/09/2023		20/09/2023	20/09/2023
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	21	<25	<25	0	113	98
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	21	<25	<25	0	113	98
Benzene	mg/kg	0.2	Org-023	[NT]	21	<0.2	<0.2	0	103	93
Toluene	mg/kg	0.5	Org-023	[NT]	21	<0.5	<0.5	0	108	94
Ethylbenzene	mg/kg	1	Org-023	[NT]	21	<1	<1	0	113	97
m+p-xylene	mg/kg	2	Org-023	[NT]	21	<2	<2	0	120	104
o-Xylene	mg/kg	1	Org-023	[NT]	21	<1	<1	0	119	103
Naphthalene	mg/kg	1	Org-023	[NT]	21	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	21	92	86	7	100	87

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	333165-56
Date extracted	-			[NT]	38	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	38	25/09/2023	25/09/2023		20/09/2023	20/09/2023
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	38	<25	<25	0	115	104
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	38	<25	<25	0	115	104
Benzene	mg/kg	0.2	Org-023	[NT]	38	<0.2	<0.2	0	108	100
Toluene	mg/kg	0.5	Org-023	[NT]	38	<0.5	<0.5	0	111	100
Ethylbenzene	mg/kg	1	Org-023	[NT]	38	<1	<1	0	114	102
m+p-xylene	mg/kg	2	Org-023	[NT]	38	<2	<2	0	122	109
o-Xylene	mg/kg	1	Org-023	[NT]	38	<1	<1	0	121	108
Naphthalene	mg/kg	1	Org-023	[NT]	38	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	38	88	94	7	102	92

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-89
Date extracted	-			[NT]	52	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	52	20/09/2023	20/09/2023		22/09/2023	20/09/2023
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	52	<25	<25	0	113	98
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	52	<25	<25	0	113	98
Benzene	mg/kg	0.2	Org-023	[NT]	52	<0.2	<0.2	0	105	92
Toluene	mg/kg	0.5	Org-023	[NT]	52	<0.5	<0.5	0	108	94
Ethylbenzene	mg/kg	1	Org-023	[NT]	52	<1	<1	0	112	96
m+p-xylene	mg/kg	2	Org-023	[NT]	52	<2	<2	0	120	103
o-Xylene	mg/kg	1	Org-023	[NT]	52	<1	<1	0	119	102
Naphthalene	mg/kg	1	Org-023	[NT]	52	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	52	83	95	13	101	85

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	333165-141
Date extracted	-			[NT]	75	18/09/2023	18/09/2023		18/09/2023	21/09/2023
Date analysed	-			[NT]	75	20/09/2023	20/09/2023		21/09/2023	22/09/2023
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	75	<25	<25	0	108	93
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	75	<25	<25	0	108	93
Benzene	mg/kg	0.2	Org-023	[NT]	75	<0.2	<0.2	0	106	89
Toluene	mg/kg	0.5	Org-023	[NT]	75	<0.5	<0.5	0	107	89
Ethylbenzene	mg/kg	1	Org-023	[NT]	75	<1	<1	0	111	91
m+p-xylene	mg/kg	2	Org-023	[NT]	75	<2	<2	0	107	98
o-Xylene	mg/kg	1	Org-023	[NT]	75	<1	<1	0	110	96
Naphthalene	mg/kg	1	Org-023	[NT]	75	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	75	98	91	7	103	86

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]	94	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	94	20/09/2023	20/09/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	94	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	94	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	94	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	94	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	94	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	94	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	94	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	94	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	94	81	85	5	[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]	104	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	104	20/09/2023	20/09/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	104	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	104	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	104	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	104	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	104	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	104	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	104	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	104	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	104	87	87	0	[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]	122	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	122	22/09/2023	22/09/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	122	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	122	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	122	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	122	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	122	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	122	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	122	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	122	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	122	85	91	7	[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]	135	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	135	22/09/2023	22/09/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	135	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	135	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	135	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	135	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	135	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	135	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	135	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	135	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	135	90	90	0	[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]	151	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	151	22/09/2023	22/09/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	151	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	151	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	151	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	151	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	151	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	151	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	151	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	151	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	151	84	81	4	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	333165-8
Date extracted	-			18/09/2023	3	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			22/09/2023	3	22/09/2023	22/09/2023		22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	3	<50	<50	0	100	111
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	3	110	110	0	90	100
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	3	150	160	6	86	93
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	3	<50	<50	0	100	111
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	3	210	210	0	90	100
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	3	<100	<100	0	86	93
Surrogate o-Terphenyl	%		Org-020	78	3	85	85	0	84	84

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	333165-42
Date extracted	-			[NT]	21	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	21	22/09/2023	22/09/2023		21/09/2023	21/09/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	21	<50	<50	0	122	129
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	107	120
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	86	110
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	21	<50	<50	0	122	129
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	107	120
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	21	<100	<100	0	86	110
Surrogate o-Terphenyl	%		Org-020	[NT]	21	82	81	1	97	116

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	333165-56
Date extracted	-			[NT]	38	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	38	21/09/2023	21/09/2023		22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	38	<50	<50	0	134	108
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	38	<100	<100	0	109	106
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	38	<100	<100	0	100	115
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	38	<50	<50	0	134	108
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	38	<100	120	18	109	106
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	38	<100	<100	0	100	115
Surrogate o-Terphenyl	%		Org-020	[NT]	38	83	104	22	113	93

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-89
Date extracted	-			[NT]	52	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	52	22/09/2023	22/09/2023		22/09/2023	22/09/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	52	<50	<50	0	108	125
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	52	<100	<100	0	96	119
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	52	<100	<100	0	86	115
TRH $>C_{10}$ -C_{16}	mg/kg	50	Org-020	[NT]	52	<50	<50	0	108	125
TRH $>C_{16}$ -C_{34}	mg/kg	100	Org-020	[NT]	52	<100	100	0	96	119
TRH $>C_{34}$ -C_{40}	mg/kg	100	Org-020	[NT]	52	<100	<100	0	86	115
Surrogate o-Terphenyl	%		Org-020	[NT]	52	91	89	2	87	114

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	333165-141
Date extracted	-			[NT]	75	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	75	22/09/2023	22/09/2023		23/09/2023	23/09/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	75	<50	<50	0	110	107
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	75	<100	<100	0	96	95
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	75	<100	<100	0	86	95
TRH $>C_{10}$ -C_{16}	mg/kg	50	Org-020	[NT]	75	<50	<50	0	110	107
TRH $>C_{16}$ -C_{34}	mg/kg	100	Org-020	[NT]	75	<100	<100	0	96	95
TRH $>C_{34}$ -C_{40}	mg/kg	100	Org-020	[NT]	75	<100	<100	0	86	95
Surrogate o-Terphenyl	%		Org-020	[NT]	75	104	107	3	88	86

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	94	22/09/2023	22/09/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	94	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
TRH $>C_{10}$ -C_{16}	mg/kg	50	Org-020	[NT]	94	<50	<50	0	[NT]	[NT]
TRH $>C_{16}$ -C_{34}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
TRH $>C_{34}$ -C_{40}	mg/kg	100	Org-020	[NT]	94	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	94	92	90	2	[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]	104	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	104	23/09/2023	23/09/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	104	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	104	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	104	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	104	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	104	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	104	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	104	81	80	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]	122	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	122	23/09/2023	23/09/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	122	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	122	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	122	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	122	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	122	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	122	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	122	61	79	26	[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]	135	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	135	23/09/2023	23/09/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	135	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	135	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	135	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	135	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	135	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	135	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	135	84	81	4	[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]	151	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	151	23/09/2023	23/09/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	151	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	151	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	151	100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	151	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	151	140	<100	33	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	151	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	151	82	80	2	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	333165-8
Date extracted	-			18/09/2023	3	18/09/2023	18/09/2023		19/09/2023	18/09/2023
Date analysed	-			22/09/2023	3	22/09/2023	22/09/2023		20/09/2023	22/09/2023
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	97	113
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	3	0.2	0.2	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	3	0.2	0.1	67	95	119
Fluorene	mg/kg	0.1	Org-022/025	<0.1	3	0.1	0.1	0	92	112
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	3	3.2	2.8	13	102	#
Anthracene	mg/kg	0.1	Org-022/025	<0.1	3	0.3	0.3	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	3	7.0	6.4	9	100	#
Pyrene	mg/kg	0.1	Org-022/025	<0.1	3	6.8	6.3	8	97	#
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	3	2.1	1.9	10	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	3	2.1	2.0	5	93	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	3	4.8	4.6	4	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	3	2.9	2.7	7	78	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	3	1.9	1.8	5	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	3	0.3	0.3	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	3	2.6	2.5	4	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	89	3	108	107	1	107	109

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	333165-42
Date extracted	-			[NT]	21	18/09/2023	18/09/2023		19/09/2023	18/09/2023
Date analysed	-			[NT]	21	22/09/2023	22/09/2023		20/09/2023	22/09/2023
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	110	101
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	105	105
Fluorene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	106	101
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	111	103
Anthracene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	110	100
Pyrene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	107	103
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	98	87
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	21	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	21	<0.05	<0.05	0	117	102
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	21	107	110	3	112	102

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	333165-56
Date extracted	-			[NT]	38	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	38	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	97	101
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	101	103
Fluorene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	93	97
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	38	0.2	0.2	0	98	100
Anthracene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	38	0.5	0.6	18	104	100
Pyrene	mg/kg	0.1	Org-022/025	[NT]	38	0.5	0.6	18	103	99
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	38	0.1	0.2	67	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	38	0.2	0.2	0	89	85
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	38	0.4	0.5	22	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	38	0.2	0.2	0	96	98
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	38	0.2	0.2	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	38	0.2	0.2	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	38	104	104	0	103	100

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-89
Date extracted	-			[NT]	52	18/09/2023	18/09/2023		18/09/2023	22/09/2023
Date analysed	-			[NT]	52	22/09/2023	22/09/2023		22/09/2023	25/09/2023
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	95	93
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	99	95
Fluorene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	93	93
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	96	87
Anthracene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	98	85
Pyrene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	95	84
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	85	79
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	52	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	52	<0.05	<0.05	0	96	88
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	52	98	106	8	97	94

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	333165-141
Date extracted	-			[NT]	75	18/09/2023	18/09/2023		22/09/2023	22/09/2023
Date analysed	-			[NT]	75	22/09/2023	22/09/2023		25/09/2023	25/09/2023
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	101	94
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	0.2	67	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	89	77
Fluorene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	86	80
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	75	0.3	0.6	67	88	87
Anthracene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	0.2	67	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	75	1.2	2.5	70	84	#
Pyrene	mg/kg	0.1	Org-022/025	[NT]	75	1.3	2.5	63	89	#
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	75	0.5	1.1	75	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	75	0.5	1.1	75	79	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	75	1	3.0	100	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	75	0.71	1.7	82	84	#
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	75	0.5	1.4	95	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	0.2	67	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	75	0.7	2.0	96	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	75	99	100	1	92	86

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	94	25/09/2023	25/09/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	94	0.5	0.6	18	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	94	1.2	1.4	15	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	94	1.2	1.3	8	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	94	0.4	0.4	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	94	0.4	0.5	22	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	94	0.9	1	11	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	94	0.56	0.67	18	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	94	0.4	0.4	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	94	0.5	0.6	18	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	94	93	93	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	104	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	104	25/09/2023	25/09/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	104	0.2	0.1	67	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	104	0.6	0.3	67	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	104	0.6	0.3	67	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	104	0.2	0.1	67	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	104	0.2	0.1	67	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	104	0.4	0.2	67	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	104	0.3	0.1	100	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	104	0.2	<0.1	67	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	104	0.2	0.1	67	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	104	89	89	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	122	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	122	25/09/2023	25/09/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	122	0.8	1.3	48	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	122	0.2	0.3	40	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	122	2.9	3.9	29	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	122	2.9	3.8	27	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	122	1.1	1.5	31	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	122	1.1	1.4	24	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	122	2.4	2.8	15	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	122	1.5	1.8	18	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	122	0.9	1.1	20	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	122	0.2	0.2	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	122	1.3	1.4	7	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	122	88	91	3	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	135	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	135	25/09/2023	25/09/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	135	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	135	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	135	84	82	2	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	151	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	151	25/09/2023	25/09/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	151	0.6	0.6	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	151	0.1	0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	151	1.6	1.5	6	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	151	1.6	1.4	13	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	151	0.5	0.4	22	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	151	0.6	0.5	18	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	151	1	1	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	151	0.76	0.71	7	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	151	0.5	0.4	22	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	151	0.7	0.6	15	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	151	94	94	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	333165-8
Date extracted	-			18/09/2023	3	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			22/09/2023	3	22/09/2023	22/09/2023		22/09/2023	22/09/2023
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	81	85
HCB	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	84	86
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	72	74
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	80	82
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	83	84
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	89	86
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	102	100
Endrin	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	70	74
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	78	80
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	64	68
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	89	3	105	108	3	85	91

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	333165-42
Date extracted	-			[NT]	21	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	21	22/09/2023	22/09/2023		22/09/2023	22/09/2023
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	82	104
HCB	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	81	102
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	72	97
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	82	103
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	82	102
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	89	109
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	93	118
Endrin	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	69	100
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	78	92
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	64	103
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	21	109	106	3	87	107

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	333165-56
Date extracted	-			[NT]	38	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	38	22/09/2023	22/09/2023		22/09/2023	22/09/2023
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	102	98
HCB	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	102	96
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	97	97
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	97	101
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	98	104
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	107	107
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	118	116
Endrin	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	96	102
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	90	90
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	133	101
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	38	103	105	2	102	102

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-89
Date extracted	-			[NT]	52	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	52	22/09/2023	22/09/2023		22/09/2023	25/09/2023
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	88	98
HCB	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	94	95
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	85	89
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	95	91
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	98	92
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	101	94
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	52	0.4	0.5	22	110	101
Endrin	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	92	90
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	82	82
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	64	80
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	52	100	106	6	101	102

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	333165-141
Date extracted	-			[NT]	75	18/09/2023	18/09/2023		22/09/2023	18/09/2023
Date analysed	-			[NT]	75	22/09/2023	22/09/2023		25/09/2023	25/09/2023
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	86	82
HCB	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	88	86
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	85	81
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	87	89
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	86	90
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	94	94
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	106	105
Endrin	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	76	86
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	86	84
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	80	60
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	75	108	105	3	90	89

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	94	25/09/2023	25/09/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	94	95	95	0	[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]	104	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	104	25/09/2023	25/09/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	104	88	88	0	[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]	122	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	122	25/09/2023	25/09/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	122	86	86	0	[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]	135	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	135	25/09/2023	25/09/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	135	89	89	0	[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]	151	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	151	25/09/2023	25/09/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	151	88	93	6	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	333165-8
Date extracted	-			18/09/2023	3	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			22/09/2023	3	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	99	130
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	77	109
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	76	124
Malathion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	75	126
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	88	112
Fenthion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	92	126
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	76	118
Phosalone	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	89	3	105	108	3	85	107

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	333165-42
Date extracted	-			[NT]	21	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	21	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	101	111
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	77	99
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	80	119
Malathion	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	74	110
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	85	102
Fenthion	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	83	119
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	75	96
Phosalone	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	21	109	106	3	87	107

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	333165-56
Date extracted	-			[NT]	38	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	38	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	117	105
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	97	95
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	105	111
Malathion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	106	95
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	98	100
Fenthion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	107	113
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	76	94
Phosalone	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	38	103	105	2	102	102

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-89
Date extracted	-			[NT]	52	18/09/2023	18/09/2023		18/09/2023	22/09/2023
Date analysed	-			[NT]	52	22/09/2023	22/09/2023		22/09/2023	25/09/2023
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	95	95
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	89	87
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	97	101
Malathion	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	61	93
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	90	92
Fenthion	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	97	107
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	82	82
Phosalone	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	52	100	106	6	101	102

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	333165-141
Date extracted	-			[NT]	75	18/09/2023	18/09/2023		22/09/2023	22/09/2023
Date analysed	-			[NT]	75	22/09/2023	22/09/2023		25/09/2023	25/09/2023
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	119	97
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	83	81
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	97	99
Malathion	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	77	79
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	88	86
Fenthion	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	101	101
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	84	84
Phosalone	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	75	108	105	3	90	89

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	94	25/09/2023	25/09/2023		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	94	95	95	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	104	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	104	25/09/2023	25/09/2023		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	104	88	88	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	122	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	122	25/09/2023	25/09/2023		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	122	86	86	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	135	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	135	25/09/2023	25/09/2023		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	135	89	89	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	151	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	151	25/09/2023	25/09/2023		[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	151	88	93	6	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	333165-8
Date extracted	-			18/09/2023	3	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			22/09/2023	3	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	85	114
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	89	3	105	108	3	85	107

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	333165-42
Date extracted	-			[NT]	21	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	21	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	21	<0.1	<0.1	0	93	100
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	21	109	106	3	87	107

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	333165-56
Date extracted	-			[NT]	38	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	38	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	108	100
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	38	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	38	103	105	2	102	102

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-89
Date extracted	-			[NT]	52	18/09/2023	18/09/2023		18/09/2023	18/09/2023
Date analysed	-			[NT]	52	22/09/2023	22/09/2023		22/09/2023	25/09/2023
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	52	<0.1	<0.1	0	102	80
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	52	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	52	100	106	6	101	102

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	333165-141
Date extracted	-			[NT]	75	18/09/2023	18/09/2023		22/09/2023	18/09/2023
Date analysed	-			[NT]	75	22/09/2023	22/09/2023		25/09/2023	25/09/2023
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	75	<0.1	<0.1	0	101	80
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	75	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	75	108	105	3	90	89

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	94	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	94	25/09/2023	25/09/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	94	95	95	0	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	104	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	104	25/09/2023	25/09/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	104	88	88	0	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	122	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	122	25/09/2023	25/09/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	122	86	86	0	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	135	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	135	25/09/2023	25/09/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	135	89	89	0	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	151	18/09/2023	18/09/2023		[NT]	[NT]
Date analysed	-			[NT]	151	25/09/2023	25/09/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	151	88	93	6	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	333165-8
Date prepared	-			19/09/2023	3	19/09/2023	19/09/2023		19/09/2023	19/09/2023
Date analysed	-			20/09/2023	3	20/09/2023	20/09/2023		20/09/2023	20/09/2023
Arsenic	mg/kg	4	Metals-020	<4	3	6	6	0	109	100
Cadmium	mg/kg	0.4	Metals-020	<0.4	3	<0.4	<0.4	0	99	93
Chromium	mg/kg	1	Metals-020	<1	3	34	35	3	113	98
Copper	mg/kg	1	Metals-020	<1	3	58	60	3	110	110
Lead	mg/kg	1	Metals-020	<1	3	20	20	0	114	96
Mercury	mg/kg	0.1	Metals-021	<0.1	3	<0.1	<0.1	0	99	90
Nickel	mg/kg	1	Metals-020	<1	3	10	10	0	107	95
Zinc	mg/kg	1	Metals-020	<1	3	36	38	5	112	95

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	333165-42
Date prepared	-			[NT]	21	19/09/2023	19/09/2023		19/09/2023	19/09/2023
Date analysed	-			[NT]	21	20/09/2023	20/09/2023		20/09/2023	20/09/2023
Arsenic	mg/kg	4	Metals-020	[NT]	21	10	9	11	105	98
Cadmium	mg/kg	0.4	Metals-020	[NT]	21	<0.4	<0.4	0	98	91
Chromium	mg/kg	1	Metals-020	[NT]	21	59	64	8	109	96
Copper	mg/kg	1	Metals-020	[NT]	21	190	200	5	106	108
Lead	mg/kg	1	Metals-020	[NT]	21	10	8	22	113	95
Mercury	mg/kg	0.1	Metals-021	[NT]	21	0.1	<0.1	0	101	112
Nickel	mg/kg	1	Metals-020	[NT]	21	12	12	0	103	95
Zinc	mg/kg	1	Metals-020	[NT]	21	30	30	0	111	97

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	333165-56
Date prepared	-			[NT]	38	19/09/2023	19/09/2023		19/09/2023	19/09/2023
Date analysed	-			[NT]	38	20/09/2023	20/09/2023		20/09/2023	20/09/2023
Arsenic	mg/kg	4	Metals-020	[NT]	38	5	5	0	104	108
Cadmium	mg/kg	0.4	Metals-020	[NT]	38	<0.4	<0.4	0	98	99
Chromium	mg/kg	1	Metals-020	[NT]	38	36	38	5	111	104
Copper	mg/kg	1	Metals-020	[NT]	38	66	67	2	108	106
Lead	mg/kg	1	Metals-020	[NT]	38	16	15	6	114	102
Mercury	mg/kg	0.1	Metals-021	[NT]	38	<0.1	<0.1	0	99	94
Nickel	mg/kg	1	Metals-020	[NT]	38	10	11	10	103	102
Zinc	mg/kg	1	Metals-020	[NT]	38	38	39	3	110	104

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-89
Date prepared	-			[NT]	52	19/09/2023	19/09/2023		19/09/2023	19/09/2023
Date analysed	-			[NT]	52	20/09/2023	20/09/2023		20/09/2023	20/09/2023
Arsenic	mg/kg	4	Metals-020	[NT]	52	10	12	18	102	105
Cadmium	mg/kg	0.4	Metals-020	[NT]	52	<0.4	<0.4	0	93	93
Chromium	mg/kg	1	Metals-020	[NT]	52	13	26	67	106	99
Copper	mg/kg	1	Metals-020	[NT]	52	120	180	40	107	109
Lead	mg/kg	1	Metals-020	[NT]	52	9	12	29	114	99
Mercury	mg/kg	0.1	Metals-021	[NT]	52	<0.1	<0.1	0	112	98
Nickel	mg/kg	1	Metals-020	[NT]	52	5	9	57	99	97
Zinc	mg/kg	1	Metals-020	[NT]	52	27	42	43	104	97

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	333165-141
Date prepared	-			[NT]	75	19/09/2023	19/09/2023		19/09/2023	19/09/2023
Date analysed	-			[NT]	75	20/09/2023	20/09/2023		20/09/2023	20/09/2023
Arsenic	mg/kg	4	Metals-020	[NT]	75	<4	5	22	105	100
Cadmium	mg/kg	0.4	Metals-020	[NT]	75	<0.4	<0.4	0	97	88
Chromium	mg/kg	1	Metals-020	[NT]	75	25	31	21	110	95
Copper	mg/kg	1	Metals-020	[NT]	75	190	230	19	111	98
Lead	mg/kg	1	Metals-020	[NT]	75	37	32	14	111	95
Mercury	mg/kg	0.1	Metals-021	[NT]	75	<0.1	<0.1	0	122	88
Nickel	mg/kg	1	Metals-020	[NT]	75	9	11	20	103	93
Zinc	mg/kg	1	Metals-020	[NT]	75	71	90	24	107	93

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	94	19/09/2023	19/09/2023		[NT]	[NT]
Date analysed	-			[NT]	94	20/09/2023	20/09/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	94	5	6	18	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	94	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	94	20	23	14	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	94	150	140	7	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	94	15	17	12	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	94	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	94	7	7	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	94	40	41	2	[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]	104	19/09/2023	19/09/2023		[NT]	[NT]
Date analysed	-			[NT]	104	20/09/2023	20/09/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	104	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	104	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	104	19	14	30	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	104	15	13	14	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	104	13	12	8	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	104	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	104	4	4	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	104	26	25	4	[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]	122	19/09/2023	19/09/2023		[NT]	[NT]
Date analysed	-			[NT]	122	20/09/2023	20/09/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	122	5	6	18	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	122	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	122	18	22	20	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	122	27	32	17	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	122	11	13	17	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	122	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	122	5	6	18	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	122	21	24	13	[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]	135	19/09/2023	19/09/2023		[NT]	[NT]
Date analysed	-			[NT]	135	20/09/2023	20/09/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	135	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	135	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	135	11	14	24	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	135	19	19	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	135	13	14	7	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	135	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	135	4	4	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	135	37	35	6	[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]	151	19/09/2023	19/09/2023		[NT]	[NT]
Date analysed	-			[NT]	151	20/09/2023	20/09/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	151	5	5	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	151	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	151	20	20	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	151	130	140	7	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	151	16	16	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	151	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	151	7	7	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	151	39	40	3	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			19/09/2023	42	19/09/2023	19/09/2023		19/09/2023	[NT]
Date analysed	-			19/09/2023	42	19/09/2023	19/09/2023		19/09/2023	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	42	7.0	7.0	0	100	[NT]

QUALITY CONTROL: CEC					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	333165-55
Date prepared	-			21/09/2023	120	21/09/2023	21/09/2023		21/09/2023	21/09/2023
Date analysed	-			21/09/2023	120	21/09/2023	21/09/2023		21/09/2023	21/09/2023
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	120	6.5	6.4	2	111	103
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	120	0.3	0.3	0	102	88
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	120	5.2	5.1	2	111	102
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	120	0.5	0.5	0	106	103

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			18/09/2023	[NT]	[NT]	[NT]	[NT]	18/09/2023	[NT]
Date analysed	-			19/09/2023	[NT]	[NT]	[NT]	[NT]	19/09/2023	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	93	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	96	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate Toluene-d8	%		Org-023	97	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	102	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			18/09/2023	[NT]	[NT]	[NT]	[NT]	18/09/2023	[NT]
Date analysed	-			19/09/2023	[NT]	[NT]	[NT]	[NT]	19/09/2023	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	111	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	111	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
Surrogate o-Terphenyl	%		Org-020	84	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			22/09/2023	[NT]	[NT]	[NT]	[NT]	22/09/2023	[NT]
Date analysed	-			25/09/2023	[NT]	[NT]	[NT]	[NT]	25/09/2023	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	75	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	71	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	66	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	68	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	67	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	61	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	66	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	107	[NT]	[NT]	[NT]	[NT]	89	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			19/09/2023	155	19/09/2023	19/09/2023		19/09/2023	[NT]
Date analysed	-			20/09/2023	155	20/09/2023	20/09/2023		20/09/2023	[NT]
Arsenic - Total	mg/L	0.05	Metals-020	<0.05	155	<0.05	<0.05	0	112	[NT]
Cadmium - Total	mg/L	0.01	Metals-020	<0.01	155	<0.01	<0.01	0	107	[NT]
Chromium - Total	mg/L	0.01	Metals-020	<0.01	155	<0.01	<0.01	0	105	[NT]
Copper - Total	mg/L	0.01	Metals-020	<0.01	155	0.07	0.08	13	104	[NT]
Lead - Total	mg/L	0.03	Metals-020	<0.03	155	<0.03	<0.03	0	107	[NT]
Mercury - Total	mg/L	0.0005	Metals-021	<0.0005	155	<0.0005	[NT]		104	[NT]
Nickel - Total	mg/L	0.02	Metals-020	<0.02	155	<0.02	<0.02	0	107	[NT]
Zinc - Total	mg/L	0.02	Metals-020	<0.02	155	<0.02	<0.02	0	111	[NT]

Result Definitions

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

Quality Control Definitions

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

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

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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

MISC_INORG_DRY: pH/EC was run out of recommended holding time.

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 333165-52 for Cr, Cu, Ni and Zn. Therefore a triplicate result has been issued as laboratory sample number 333165-161.

PAHs in Soil - The RPD for duplicate results is accepted due to the non homogenous nature of sample/s 333165-75,75d.

PAHs in Soil - # Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 333165-8ms,141ms have caused interference.

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.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	JK Environments
Attention	C Ridley

Sample Login Details	
Your reference	E35822PR, Temora
Envirolab Reference	333165
Date Sample Received	15/09/2023
Date Instructions Received	15/09/2023
Date Results Expected to be Reported	25/09/2023

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	156 Soil, 3 Water, 1 Material
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

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Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	Misc Inorg - Soil	CEC	Clay 50-120g	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	Asbestos ID - materials	On Hold
TP101-0-0.1	✓	✓	✓				✓	✓									
TP101-0.4-0.5	✓	✓	✓				✓										
TP102-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP102-0.3-0.4																	✓
TP102-0.9-1.0																	✓
TP103-0-0.1	✓	✓	✓				✓	✓									
TP103-0.4-0.5																	✓
TP104-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP104-0.4-0.5																	✓
TP104-0.9-1.0																	✓
TP105-0-0.1	✓	✓	✓				✓	✓									
TP105-0.3-0.4																	✓
TP106-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP106-0.4-0.5	✓	✓	✓				✓										
TP107-0-0.1	✓	✓	✓				✓	✓									
TP107-0.4-0.5																	✓
TP108-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP108-0.4-0.5	✓	✓	✓				✓										
TP109-0-0.1	✓	✓	✓				✓	✓									
TP109-0.4-0.5																	✓
TP110-0-0.1	✓	✓	✓	✓	✓	✓	✓										
TP110-0.4-0.5																	✓
TP111-0-0.1	✓	✓	✓				✓	✓									
TP111-0.3-0.4																	✓
TP112-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP112-0.4-0.5																	✓
TP113-0-0.1	✓	✓	✓				✓	✓									
TP113-0.4-0.5																	✓
TP113-0.9-1.0	✓	✓	✓				✓										
TP113-1.4-1.5																	✓
TP114-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP114-0.3-0.4																	✓

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	Misc Inorg - Soil	CEC	Clay 50-120g	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	Asbestos ID - materials	On Hold
TP115-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP115-0.2-0.3																	✓
TP115-0.7-0.8																	✓
TP116-0-0.05	✓	✓	✓				✓	✓									
TP116-0.4-0.5	✓	✓	✓				✓										
TP117-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP117-0.5-0.6																	✓
TP118-0-0.1	✓	✓	✓				✓	✓									
TP118-0.4-0.5																	✓
TP119-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
TP119-0.4-0.5																	✓
TP120-0-0.1	✓	✓	✓				✓	✓									
TP120-0.4-0.5	✓	✓	✓				✓										
TP121-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP121-0.5-0.6																	✓
TP122-0-0.1	✓	✓	✓				✓	✓									
TP122-0.4-0.5																	✓
TP123-0-0.1	✓	✓	✓				✓										
TP123-0.2-0.3																	✓
TP124-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP125-0-0.1	✓	✓	✓				✓	✓									
TP125-0.4-0.5																	✓
TP125-0.7-0.8	✓	✓	✓				✓		✓	✓	✓						
BH126-0.02-0.2	✓	✓	✓	✓	✓	✓	✓	✓									
BH126-0.4-0.6																	✓
BH126-1.0-1.2																	✓
TP127-0-0.1	✓	✓	✓				✓	✓									
TP127-0.3-0.4	✓	✓	✓				✓										
TP128-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP128-0.4-0.5																	✓
TP129-0-0.1	✓	✓	✓				✓	✓									
TP129-0.4-0.5																	✓

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

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	Misc Inorg - Soil	CEC	Clay 50-120g	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	Asbestos ID - materials	On Hold
TP130-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP130-0.4-0.5	✓	✓	✓				✓										
TP131-0-0.1	✓	✓	✓				✓	✓									
TP131-0.2-0.3																	✓
TP132-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP132-0.2-03																	✓
TP133-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP133-0.2-0.3																	✓
TP134-0-0.1	✓	✓	✓				✓	✓									
TP134-0.2-0.3																	✓
TP135-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP135-0.3-0.4																	✓
TP136 -0-0.1	✓	✓	✓				✓	✓									
TP136-0.4-0.5	✓	✓	✓				✓										
TP136-0.6-0.7																	✓
TP137-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP137-0.4-0.5																	✓
TP138-0-0.1	✓	✓	✓				✓	✓									
TP138-0.2-0.3																	✓
TP139-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP139-0.2-0.3	✓	✓	✓				✓		✓	✓	✓						
TP140-0-0.1	✓	✓	✓				✓	✓									
TP140-0.2-0.3																	✓
TP140-0.4-0.5	✓	✓	✓				✓										
TP141-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP141-0.4-0.5																	✓
TP141-0.6-0.7																	✓
TP142-0-0.1	✓	✓	✓				✓	✓									
TP142-0.4-0.5	✓	✓	✓				✓										
TP143-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP143-0.2-0.3	✓	✓	✓				✓	✓									
TP143-0.7-0.8																	✓

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	Misc Inorg - Soil	CEC	Clay 50-120g	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	Asbestos ID - materials	On Hold
TP144-0-0.1	✓	✓	✓				✓	✓									
TP144-0.2-0.3	✓	✓	✓				✓	✓									
TP144-0.7-0.8																	✓
TP145-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP145-0.4-0.5	✓	✓	✓				✓										
TP146-0-0.05	✓	✓	✓				✓	✓									
TP146-0.3-0.4	✓	✓	✓				✓										
TP147-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP147-0.2-0.3																	✓
TP147-0.6-0.7	✓	✓	✓				✓	✓									
TP147-1.0-1.1																	✓
TP148-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP148-0.4-0.5																	✓
TP149-0-0.1	✓	✓	✓				✓	✓									
TP149-0.2-0.3																	✓
TP149-0.5-0.6	✓	✓	✓				✓	✓									
TP149-0.7-0.8	✓	✓	✓				✓										
TP150-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP150-0.4-0.5																	✓
TP151-0-0.1	✓	✓	✓				✓	✓									
TP151-0.4-0.5																	✓
TP152-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP153-0-0.1	✓	✓	✓				✓	✓									
TP153-0.4-0.5									✓	✓	✓						
TP153-0.6-0.7	✓	✓	✓				✓										
TP154-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP154-0.4-0.5																	✓
BH155-0.05-0.2	✓	✓	✓				✓	✓									
BH155-0.2-0.5	✓	✓	✓				✓	✓									
BH155-0.5-0.8	✓	✓	✓				✓										
BH155-1.2-1.4																	✓
TP156-0-0.1	✓	✓	✓				✓	✓									

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	Misc Inorg - Soil	CEC	Clay 50-120g	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Waters -Acid extractable	Asbestos ID - materials	On Hold
TP156-0.2-0.3																	✓
BH157-0.03-0.3	✓	✓	✓	✓	✓	✓	✓	✓									
BH157-0.3-0.6																	✓
BH157-0.7-1.0																	✓
BH158-0.04-0.3	✓	✓	✓				✓	✓									
BH158-0.3-0.6	✓	✓	✓				✓										
TP159-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP159-0.1-0.2																	✓
TP159-0.4-0.5																	✓
TP159-0.6-0.7																	✓
TP160-0-0.1	✓	✓	✓				✓	✓									
TP160-0.2-0.3	✓	✓	✓				✓										
TP161-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP161-0.4-0.5																	✓
BH162-0.04-0.2	✓	✓	✓				✓	✓									
BH162-0.4-0.6																	✓
BH162-1.2-1.4	✓	✓	✓				✓		✓	✓	✓						
TP163-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓									
TP163-0.4-0.5																	✓
SDUP106	✓	✓	✓				✓										
SDUP107	✓	✓	✓				✓										
SDUP108	✓	✓	✓	✓	✓	✓	✓										
SDUP109	✓	✓	✓	✓	✓	✓	✓										
SDUP110	✓	✓	✓				✓										
TB-S101	✓	✓	✓				✓										
TB-S102	✓	✓	✓				✓										
FR-101												✓	✓	✓	✓		
FR-102												✓	✓	✓	✓		
FCF101																✓	
BH																	✓
TS-S101																	✓
TS-S102																	✓

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

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

Copy

COC: 15/9/23 1357

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E35822PR Date Results Required: STANDARD Page: 1 of 7	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location:	Temora	Sample Preserved in Esky on Ice
Sampler:	AD	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
6/09/2023	1	TP101	0-0.1	G, A	1.7	F: Silty Clay		X										
6/09/2023	2	TP101	0.4-0.5	G, A	1.6	Silty Clay				X								
6/09/2023	3	TP102	0-0.1	G, A	1.5	F: Silty Clay	X											
6/09/2023	4	TP102	0.3-0.4	G, A	1.7	F: Silty Clay												
6/09/2023	5	TP102	0.9-1.0	G, A	1.8	Silty Clay												
6/09/2023	6	TP103	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	7	TP103	0.4-0.5	G, A	2.1	Silty Clay												
6/09/2023	8	TP104	0-0.1	G, A	2	F: Silty Clay	X											
6/09/2023	9	TP104	0.4-0.5	G, A	1.8	F: Silty Clay												
6/09/2023	10	TP104	0.9-1.0	G, A	2.1	Silty Clay												
6/09/2023	11	TP105	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	12	TP105	0.3-0.4	G, A	1.1	F: Silty Clay												
6/09/2023	13	TP106	0-0.1	G, A	1.3	F: Silty Clay	X											
6/09/2023	14	TP106	0.4-0.5	G, A	1.9	Silty Clay				X								
6/09/2023	15	TP107	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	16	TP107	0.4-0.5	G, A	1.5	Silty Clay												
6/09/2023	17	TP108	0-0.1	G, A	0.8	F: Silty Clay	X											
6/09/2023	18	TP108	0.4-0.5	G, A	22.5	Silty Clay				X								
6/09/2023	19	TP109	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	20	TP109	0.4-0.5	G, A	2.1	F: Silty Clay												
6/09/2023	21	TP110	0-0.1	G, A	2	Silty Clay								X				
6/09/2023	22	TP110	0.4-0.5	G, A	1.8	Silty Clay												
6/09/2023	23	TP111	0-0.1	G, A	1.2	F: Silty Clay		X										
6/09/2023	24	TP111	0.3-0.4	G, A	1.2	Silty Clay												
6/09/2023	25	TP112	0-0.1	G, A	1	F: Silty Clay	X											

Remarks (comments/detection limits required):		Sample Containers: G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag	
Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By: Date:

ENVIROLAB

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

Job No: 333165

Date Received: 15/9/23
Time Received: 1630
Received By: AY
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

SAMPLE AND CHAIN OF CUSTODY FORM

TO:	JKE Job Number: E35822PR	FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	Date Results Required: STANDARD Page: 2 of 7	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location:	Temora	Sample Preserved in Esky on Ice
Sampler:	AD	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
6/09/2023	26	TP112	0.4-0.5	G, A	1.4	Silty Clay												
7/09/2023	27	TP113	0-0.1	G, A	6.4	F: Silty Clay		X										
7/09/2023	28	TP113	0.4-0.5	G, A	7	F: Silty Clay												
7/09/2023	29	TP113	0.9-1.0	G, A	7.9	Silty Clay				X								
7/09/2023	30	TP113	1.4-1.5	G, A	7.1	XW Andesite												
7/09/2023	31	TP114	0-0.1	G, A	2.7	F: Silty Clay	X											
7/09/2023	32	TP114	0.3-0.4	G, A	5.2	Silty Clay												
7/09/2023	33	TP115	0-0.1	G, A	2.8	F: Silty Sand	X											
7/09/2023	34	TP115	0.2-0.3	G, A	1.6	F: Silty Clay												
7/09/2023	35	TP115	0.7-0.8	G, A	4.4	Silty Clay												
7/09/2023	36	TP116	0-0.05	G, A	4.3	F: Silty Sand		X										
7/09/2023	37	TP116	0.4-0.5	G, A	9.5	Silty Clay				X								
6/09/2023	38	TP117	0-0.1	G, A	1.4	F: Silty Clay	X											
6/09/2023	39	TP117	0.5-0.6	G, A	1.4	Silty Clay												
6/09/2023	40	TP118	0-0.1	G, A	1.5	F: Silty Clay		X										
6/09/2023	41	TP118	0.4-0.5	G, A	1.8	Silty Clay												
7/09/2023	42	TP119	0-0.1	G, A	4.3	F: Silty Clay	X									X		
7/09/2023	43	TP119	0.4-0.5	G, A	3.6	Silty Clay												
7/09/2023	44	TP120	0-0.1	G, A	5.2	F: Silty Clay		X										
7/09/2023	45	TP120	0.4-0.5	G, A	8.6	Silty Clay				X								
7/09/2023	46	TP121	0-0.1	G, A	4.3	F: Silty Clay	X											
7/09/2023	47	TP121	0.5-0.6	G, A	3.3	Silty Clay												
7/09/2023	48	TP122	0-0.1	G, A	2.4	F: Silty Clay		X										
7/09/2023	49	TP122	0.4-0.5	G, A	3.5	Silty Clay												
7/09/2023	50	TP123	0-0.1	G, A	4.2	Silty Clay				X								
7/09/2023	51	TP123	0.2-0.3	G, A	5.9	XW Andesite												

Remarks (comments/detection limits required):	Sample Containers: G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag

Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

333165
15/9/23
1630
AY

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E35822PR Date Results Required: STANDARD Page: 3 of 7	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location: Temora

Sampler: AD

Sample Preserved in Esky on Ice

Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
8/09/2023	52	TP124	0-0.1	G, A	1	F: Silty Clay	X											
8/09/2023	53	TP125	0-0.1	G, A	1.1	F: Silty Clay		X										
8/09/2023	54	TP125	0.4-0.5	G, A	1.4	F: Silty Clay												
8/09/2023	55	TP125	0.7-0.8	G, A	1.7	Silty Clay				X						X		
13/09/2023	56	BH126	0.02-0.2	G, A	2.5	F: Sandy Silty Clay	X											
13/09/2023	57	BH126	0.4-0.6	G, A	2.7	F: Clayey Silt												
13/09/2023	58	BH126	1.0-1.2	G, A	3.1	Silty Clay												
7/09/2023	59	TP127	0-0.1	G, A	5.9	F: Silty Clay		X										
7/09/2023	60	TP127	0.3-0.4	G, A	8.7	Silty Clay				X								
7/09/2023	61	TP128	0-0.1	G, A	6	F: Silty Clay	X											
7/09/2023	62	TP128	0.4-0.5	G, A	6.9	Silty Clay												
7/09/2023	63	TP129	0-0.1	G, A	7.5	F: Silty Clay		X										
7/09/2023	64	TP129	0.4-0.5	G, A	8.8	Silty Clay												
7/09/2023	65	TP130	0-0.1	G, A	9.8	F: Silty Clay	X											
7/09/2023	66	TP130	0.4-0.5	G, A	6.2	Silty Clay				X								
11/09/2023	67	TP131	0-0.1	G, A	1.8	F: Silty Clay		X										
11/09/2023	68	TP131	0.2-0.3	G, A	1.5	XW Andesite												
11/09/2023	69	TP132	0-0.1	G, A	1.1	F: Silty Clay	X											
11/09/2023	70	TP132	0.2-03	G, A	1.9	XW Andesite												
11/09/2023	71	TP133	0-0.1	G, A	2.1	F: Silty Clay	X											
11/09/2023	72	TP133	0.2-0.3	G, A	1.7	Silty Clay												
11/09/2023	73	TP134	0-0.1	G, A	2.3	F: Clayey Silt		X										
11/09/2023	74	TP134	0.2-0.3	G, A	2.1	Silty Clay												
11/09/2023	75	TP135	0-0.1	G, A	3	F: Silty Clay	X											
11/09/2023	76	TP135	0.3-0.4	G, A	1	Silty Clay												

Remarks (comments/detection limits required):		Sample Containers: G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag		
Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

333165
15/9/23
1630
AY

SAMPLE AND CHAIN OF CUSTODY FORM

TO:	JKE Job Number: E35822PR	FROM: JKEnvironments
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	Date Results Required: STANDARD Page: 4 of 7	REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location: Temora

Sampler: AD

Sample Preserved in Esky on Ice

Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
11/09/2023	77	TP136	0-0.1	G, A	1.9	F: Silty Clay		X										
11/09/2023	78	TP136	0.4-0.5	G, A	2.2	Silty Clay				X								
11/09/2023	79	TP136	0.6-0.7	G, A	2.4	XW Andesite												
11/09/2023	80	TP137	0-0.1	G, A	0.8	F: Silty Clay	X											
11/09/2023	81	TP137	0.4-0.5	G, A	1.1	Silty Clay												
11/09/2023	82	TP138	0-0.1	G, A	0.8	F: Silty Clay		X										
11/09/2023	83	TP138	0.2-0.3	G, A	1.1	Silty Clay												
11/09/2023	84	TP139	0-0.1	G, A	2.2	F: Silty Clay	X											
11/09/2023	85	TP139	0.2-0.3	G, A	1.9	Silty Clay				X						X		
11/09/2023	86	TP140	0-0.1	G, A	2.4	F: Silty Clay		X										
11/09/2023	87	TP140	0.2-0.3	G, A	2.6	Silty Clay												
11/09/2023	88	TP140	0.4-0.5	G, A	3.5	XW Andesite				X								
12/09/2023	89	TP141	0-0.1	G, A	2.7	F: Clayey Silt	X											
12/09/2023	90	TP141	0.4-0.5	G, A	3.5	Silty Clay												
12/09/2023	91	TP141	0.6-0.7	G, A	3.5	XW Andesite												
7/09/2023	92	TP142	0-0.1	G, A	4.2	F: Silty Clay		X										
7/09/2023	93	TP142	0.4-0.5	G, A	7.3	Silty Clay				X								
11/09/2023	94	TP143	0-0.1	G, A	2.9	F: Clayey Silt	X											
11/09/2023	95	TP143	0.2-0.3	G, A	3.6	F: Silty Clay		X										
11/09/2023	96	TP143	0.7-0.8	G, A	2.6	Silty Clay												
8/09/2023	97	TP144	0-0.1	G, A	1.7	F: Silty Sand		X										
8/09/2023	98	TP144	0.2-0.3	G, A	2	F: Silty Clayey Sand		X										
8/09/2023	99	TP144	0.7-0.8	G, A	2.1	Silty Clay												
8/09/2023	100	TP145	0-0.1	G, A	2.1	F: Silty Gravelly Clay	X											
8/09/2023	101	TP145	0.4-0.5	G, A	2.5	Silty Clay				X								

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

333165
15/9/23
1630
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SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E35822PR Date Results Required: STANDARD Page: 5 of 7	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location: Temora

Sampler: AD

Sample Preserved in Esky on Ice

Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
7/09/2023	102	TP146	0-0.05	G, A	7.2	F: Gravelly Silty Clay		X										
7/09/2023	103	TP146	0.3-0.4	G, A	7.4	Silty Clay				X								
8/09/2023	104	TP147	0-0.1	G, A	2.5	F: Clayey Silt	X											
8/09/2023	105	TP147	0.2-0.3	G, A	1.8	F: Clayey Silt												
8/09/2023	106	TP147	0.6-0.7	G, A	2.8	F: Silty Sandy Clay		X										
8/09/2023	107	TP147	1.0-1.1	G, A	2.2	Silty Clay												
8/09/2023	108	TP148	0-0.1	G, A	1.8	F: Clayey Silt	X											
8/09/2023	109	TP148	0.4-0.5	G, A	1.3	F: Silty Clay												
8/09/2023	110	TP149	0-0.1	G, A	0.4	F: Silty Clay		X										
8/09/2023	111	TP149	0.2-0.3	G, A	0.5	F: Silty Sand												
8/09/2023	112	TP149	0.5-0.6	G, A	0.8	F: Silty Clay		X										
8/09/2023	113	TP149	0.7-0.8	G, A	0.9	Silty Clay				X								
8/09/2023	114	TP150	0-0.1	G, A	0.3	F: Silty Clay	X											
8/09/2023	115	TP150	0.4-0.5	G, A	0.6	Silty Clay												
8/09/2023	116	TP151	0-0.1	G, A	1.2	F: Silty Clay		X										
8/09/2023	117	TP151	0.4-0.5	G, A	0.8	Silty Clay												
8/09/2023	118	TP152	0-0.1	G, A	0.7	F: Silty Clay	X											
12/09/2023	119	TP153	0-0.1	G, A	3.2	F: Silty Sandy Clay		X										
12/09/2023	120	TP153	0.4-0.5	G, A	3.2	Silty Clay										X		
12/09/2023	121	TP153	0.6-0.7	G, A	3.5	Silty Clay				X								
12/09/2023	122	TP154	0-0.1	G, A	4	F: Gravelly Clayey Sand	X											
12/09/2023	123	TP154	0.4-0.5	G, A	4.6	Silty Clay												
13/09/2023	124	BH155	0.05-0.2	G, A	4.3	F: Silty Sand		X										
13/09/2023	125	BH155	0.2-0.5	G, A	4.1	F: Silty Clay		X										
13/09/2023	126	BH155	0.5-0.8	G, A	3.9	Silty Clay				X								

Remarks (comments/detection limits required):		Sample Containers: G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag		
Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

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15/9/23
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SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E35822PR Date Results Required: STANDARD Page: 6 of 7	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location:	Temora	Sample Preserved in Esky on Ice
Sampler:	AD	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content	-	
13/09/2023	127	BH155	1.2-1.4	G, A	5.9	XW Andesite												
8/09/2023	128	TP156	0-0.1	G, A	0.4	F: Silty Clay		X										
8/09/2023	129	TP156	0.2-0.3	G, A	0.3	F: Silty Clay												
13/09/2023	130	BH157	0.03-0.3	G, A	4.1	F: Silty Clay	X											
13/09/2023	131	BH157	0.3-0.6	G, A	7	Silty Clay												
13/09/2023	132	BH157	0.7-1.0	G, A	6.2	XW Andesite												
13/09/2023	133	BH158	0.04-0.3	G, A	4.6	F: Silty Sandy Clay		X										
13/09/2023	134	BH158	0.3-0.6	G, A	8.1	XW Andesite				X								
11/09/2023	135	TP159	0-0.1	G, A	2.9	F: Clayey Silt	X											
11/09/2023	136	TP159	0.1-0.2	G, A	2.3	F: Clayey Silt												
11/09/2023	137	TP159	0.4-0.5	G, A	1.6	F: Silty Sandy Clay												
11/09/2023	138	TP159	0.6-0.7	G, A	3.1	XW Andesite												
11/09/2023	139	TP160	0-0.1	G, A	1.6	F: Silty Clay		X										
11/09/2023	140	TP160	0.2-0.3	G, A	5.8	Silty Clay				X								
11/09/2023	141	TP161	0-0.1	G, A	2.4	F: Silty Clay	X											
11/09/2023	142	TP161	0.4-0.5	G, A	3.4	Silty Clay												
13/09/2023	143	BH162	0.04-0.2	G, A	6	F: Silty Clay		X										
13/09/2023	144	BH162	0.4-0.6	G, A	3.8	F: Silty Sandy Clay												
13/09/2023	145	BH162	1.2-1.4	G, A	3.5	Silty Clay				X						X		
8/09/2023	146	TP163	0-0.1	G, A	0.7	F: Silty Clay	X											
8/09/2023	147	TP163	0.4-0.5	G, A	0.9	Silty Clay												
6/09/2023	#	SDUP101	-	G	-	Duplicate								X				
6/09/2023	#	SDUP102	-	G	-	Duplicate									X			
6/09/2023	#	SDUP103	-	G	-	Duplicate								X				
6/09/2023	#	SDUP104	-	G	-	Duplicate									X			

Remarks (comments/detection limits required):	Sample Containers:
# to Envirolab VIC (*)	G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag

Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

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15/9/23
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SAMPLE AND CHAIN OF CUSTODY FORM

TO: ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E35822PR Date Results Required: STANDARD Page: 7 of 7	**FROM:** JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location: Temora

Sampler: AD

Sample Preserved in Esky on Ice

Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
6/09/2023	#	SDUP105	-	G	-	Duplicate									X			
6/09/2023	148	SDUP106	-	G	-	Duplicate									X			
7/09/2023	149	SDUP107	-	G	-	Duplicate									X			
8/09/2023	150	SDUP108	-	G	-	Duplicate								X				
11/09/2023	151	SDUP109	-	G	-	Duplicate								X				
11/08/2023	152	SDUP110	-	G	-	Duplicate									X			
6-8/09/23	153	TB-S101	-	G	-	Trip Blank				X								
11-13/09/23	154	TB-S102	-	G	-	Trip Blank				X								
6-8/09/23	159	TS-S101	-	V	-	Trip Spike						X						
11-13/09/23	160	TS-S102	-	V	-	Trip Spike						X						
7/09/2023	155	FR-101	-	#	-	Field Rinsate				X								
13/09/2023	156	FR-102	-	#	-	Field Rinsate				X								
12/09/2023	157	FCF101	-	A	-	Fragment					X							
Extra	158	BM																

Remarks (comments/detection limits required):
to Envirolab VIC (*)

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

333165
15/9/23
1630
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CERTIFICATE OF ANALYSIS 333165-A

Client Details

Client	JK Environments
Attention	C Ridley
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E35822PR, Temora**
Number of Samples	Additional analyses
Date samples received	15/09/2023
Date completed instructions received	29/09/2023

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	09/10/2023
Date of Issue	09/10/2023

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Dragana Tomas, Senior Chemist
Loren Bardwell, Development Chemist
Priya Samarawickrama, Senior Chemist
Steven Luong, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

Acid Extractable metals in soil		
Our Reference		333165-A-68
Your Reference	UNITS	TP131
Depth		0.2-0.3
Date Sampled		11/09/2023
Type of sample		Soil
Date prepared	-	03/10/2023
Date analysed	-	04/10/2023
Lead	mg/kg	9

Misc Soil - Inorg						
Our Reference		333165-A-50	333165-A-66	333165-A-93	333165-A-113	333165-A-121
Your Reference	UNITS	TP123	TP130	TP142	TP149	TP153
Depth		0-0.1	0.4-0.5	0.4-0.5	0.7-0.8	0.6-0.7
Date Sampled		7/09/2023	7/09/2023	7/09/2023	8/09/2023	12/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	05/10/2023	05/10/2023	05/10/2023	05/10/2023	05/10/2023
Date analysed	-	05/10/2023	05/10/2023	05/10/2023	05/10/2023	05/10/2023
Hexavalent Chromium, Cr^{6+}	mg/kg	<1	<1	<1	<1	<1

Misc Soil - Inorg		
Our Reference		333165-A-126
Your Reference	UNITS	BH155
Depth		0.5-0.8
Date Sampled		13/09/2023
Type of sample		Soil
Date prepared	-	05/10/2023
Date analysed	-	05/10/2023
Hexavalent Chromium, Cr^{6+}	mg/kg	<1

Moisture		
Our Reference		333165-A-68
Your Reference	UNITS	TP131
Depth		0.2-0.3
Date Sampled		11/09/2023
Type of sample		Soil
Date prepared	-	03/10/2023
Date analysed	-	04/10/2023
Moisture	%	10

TCLP Preparation - Acid						
Our Reference		333165-A-1	333165-A-3	333165-A-6	333165-A-8	333165-A-11
Your Reference	UNITS	TP101	TP102	TP103	TP104	TP105
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
pH of soil for fluid# determ.	pH units	8.8	8.6	8.7	8.5	8.4
pH of soil TCLP (after HCl)	pH units	1.8	1.8	1.8	1.8	1.8
Extraction fluid used		1	1	1	1	1
pH of final Leachate	pH units	5.0	5.0	5.0	5.0	5.0

TCLP Preparation - Acid						
Our Reference		333165-A-29	333165-A-40	333165-A-44	333165-A-67	333165-A-71
Your Reference	UNITS	TP113	TP118	TP120	TP131	TP133
Depth		0.9-1.0	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	6/09/2023	7/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
pH of soil for fluid# determ.	pH units	8.3	8.3	8.4	8.1	8.1
pH of soil TCLP (after HCl)	pH units	1.8	1.8	1.8	1.8	1.8
Extraction fluid used		1	1	1	1	1
pH of final Leachate	pH units	5.0	5.0	5.0	5.0	5.0

TCLP Preparation - Acid						
Our Reference		333165-A-73	333165-A-85	333165-A-92	333165-A-106	333165-A-112
Your Reference	UNITS	TP134	TP139	TP142	TP147	TP149
Depth		0-0.1	0.2-0.3	0-0.1	0.6-0.7	0.5-0.6
Date Sampled		11/09/2023	11/09/2023	7/09/2023	8/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
pH of soil for fluid# determ.	pH units	8.1	8.2	7.8	8.6	8.8
pH of soil TCLP (after HCl)	pH units	1.8	1.8	1.8	5.5	1.8
Extraction fluid used		1	1	1	2	1
pH of final Leachate	pH units	5.0	5.0	5.0	5.6	5.0

TCLP Preparation - Acid						
Our Reference		333165-A-119	333165-A-122	333165-A-124	333165-A-125	333165-A-128
Your Reference	UNITS	TP153	TP154	BH155	BH155	TP156
Depth		0-0.1	0-0.1	0.05-0.2	0.2-0.5	0-0.1
Date Sampled		12/09/2023	12/09/2023	13/09/2023	13/09/2023	8/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
pH of soil for fluid# determ.	pH units	8.7	8.5	7.7	8.8	8.7
pH of soil TCLP (after HCl)	pH units	1.8	1.8	1.8	2.3	1.8
Extraction fluid used		1	1	1	1	1
pH of final Leachate	pH units	5.0	5.0	5.0	5.9	5.0

TCLP Preparation - Acid			
Our Reference		333165-A-141	333165-A-143
Your Reference	UNITS	TP161	BH162
Depth		0-0.1	0.04-0.2
Date Sampled		11/09/2023	13/09/2023
Type of sample		Soil	Soil
pH of soil for fluid# determ.	pH units	8.6	8.7
pH of soil TCLP (after HCl)	pH units	1.8	1.8
Extraction fluid used		1	1
pH of final Leachate	pH units	4.9	5.0

Metals from Leaching Fluid pH 2.9 or 5				
Our Reference		333165-A-67	333165-A-71	333165-A-85
Your Reference	UNITS	TP131	TP133	TP139
Depth		0-0.1	0-0.1	0.2-0.3
Date Sampled		11/09/2023	11/09/2023	11/09/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	09/10/2023	09/10/2023	09/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023
Lead	mg/L	0.2	0.04	<0.03

PAHs in TCLP (USEPA 1311)						
Our Reference		333165-A-1	333165-A-3	333165-A-6	333165-A-8	333165-A-11
Your Reference	UNITS	TP101	TP102	TP103	TP104	TP105
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/09/2023	6/09/2023	6/09/2023	6/09/2023	6/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023	09/10/2023	09/10/2023
Naphthalene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluorene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Phenanthrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluoranthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(a)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(a)pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total +ve PAH's	mg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	93	83	90	99	100

PAHs in TCLP (USEPA 1311)						
Our Reference		333165-A-29	333165-A-40	333165-A-44	333165-A-73	333165-A-92
Your Reference	UNITS	TP113	TP118	TP120	TP134	TP142
Depth		0.9-1.0	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		7/09/2023	6/09/2023	7/09/2023	11/09/2023	7/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023	09/10/2023	09/10/2023
Naphthalene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluorene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Phenanthrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluoranthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(a)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(a)pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total +ve PAH's	mg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	102	74	101	85	71

PAHs in TCLP (USEPA 1311)						
Our Reference		333165-A-106	333165-A-112	333165-A-119	333165-A-122	333165-A-124
Your Reference	UNITS	TP147	TP149	TP153	TP154	BH155
Depth		0.6-0.7	0.5-0.6	0-0.1	0-0.1	0.05-0.2
Date Sampled		8/09/2023	8/09/2023	12/09/2023	12/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023	09/10/2023	09/10/2023
Naphthalene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluorene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Phenanthrene in TCLP	mg/L	0.001	<0.0001	0.0006	<0.0001	0.0002
Anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluoranthene in TCLP	mg/L	0.0003	<0.0001	0.0003	<0.0001	0.0001
Pyrene in TCLP	mg/L	0.0002	<0.0001	0.0002	<0.0001	<0.0001
Benzo(a)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(a)pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total +ve PAH's	mg/L	0.0019	NIL (+)VE	0.0011	NIL (+)VE	0.0003
Surrogate p-Terphenyl-d14	%	108	95	91	95	88

PAHs in TCLP (USEPA 1311)					
Our Reference		333165-A-125	333165-A-128	333165-A-141	333165-A-143
Your Reference	UNITS	BH155	TP156	TP161	BH162
Depth		0.2-0.5	0-0.1	0-0.1	0.04-0.2
Date Sampled		13/09/2023	8/09/2023	11/09/2023	13/09/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	04/10/2023	04/10/2023	04/10/2023	04/10/2023
Date analysed	-	09/10/2023	09/10/2023	09/10/2023	09/10/2023
Naphthalene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Acenaphthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Fluorene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Phenanthrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.003
Anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Fluoranthene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.002
Pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.002
Benzo(a)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Chrysene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(a)pyrene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Total +ve PAH's	mg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	0.0070
Surrogate p-Terphenyl-d14	%	96	98	85	101

Method ID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439. Please note that the mass used may be scaled down from default based on sample mass available. Samples are stored at 2-6oC before and after leachate preparation.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-118	Hexavalent Chromium (Cr6+) - determined firstly by separation using ion chromatography followed by the colourimetric analytical finish. Water samples are ideally field filtered into alkali preserved containers prior to receipt for dissolved Cr6+ analysis. Unfiltered water samples into alkali preserved containers (or pH adjusted to pH 8-9 on receipt) can be classified as Total (unfiltered) Cr6+. Please note, for 'Total/Unfiltered' Trivalent Chromium in waters [calculated], these results may be exaggerated due to the digestive limitation of 'Total/Unfiltered' Hexavalent Chromium in NaOH at pH 8-9 compared to more comprehensive digestion for Total Chromium using the mineral acids HNO3 and HCl. Solid (includes soils, filters, paints, swabs for example) samples are extracted in a buffered catalysed solution prior to the analytical finish above. Water extractable options are available (e.g. as an option for filters) on request. Impingers may need pH adjusting to pH 8-9 prior to IC-colourimetric analytical finish.
Metals-020	Determination of various metals by ICP-AES.
Metals-020	Determination of various metals by ICP-AES following buffer determination as per USEPA 1311 and hence AS 4439.3. Extraction Fluid 1 refers to the pH 5.0 buffer and Extraction Fluid 2 is the pH 2.9 buffer.
Org-022/025	Leachates are extracted with Dichloromethane and analysed by GC-MS/GC-MSMS.

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	[NT]
Date prepared	-			03/10/2023	[NT]	[NT]	[NT]	[NT]	03/10/2023	[NT]
Date analysed	-			04/10/2023	[NT]	[NT]	[NT]	[NT]	04/10/2023	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	114	[NT]

QUALITY CONTROL: Misc Soil - Inorg					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	333165-A-50
Date prepared	-			05/10/2023	[NT]	[NT]	[NT]	[NT]	05/10/2023	05/10/2023
Date analysed	-			05/10/2023	[NT]	[NT]	[NT]	[NT]	05/10/2023	05/10/2023
Hexavalent Chromium, Cr^{6+}	mg/kg	1	Inorg-118	<1	[NT]	[NT]	[NT]	[NT]	105	96

QUALITY CONTROL: Metals from Leaching Fluid pH 2.9 or 5					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			09/10/2023	[NT]	[NT]	[NT]	[NT]	09/10/2023	[NT]
Date analysed	-			09/10/2023	[NT]	[NT]	[NT]	[NT]	09/10/2023	[NT]
Lead	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	82	[NT]

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	333165-A-3
Date extracted	-			04/10/2023	92	04/10/2023	04/10/2023		04/10/2023	04/10/2023
Date analysed	-			09/10/2023	92	09/10/2023	09/10/2023		09/10/2023	09/10/2023
Naphthalene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	74	61
Acenaphthylene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	82	64
Fluorene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	76	60
Phenanthrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	84	62
Anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	86	64
Pyrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	89	68
Benzo(a)anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	[NT]	[NT]
Chrysene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	75	60
Benzo(bjk)fluoranthene in TCLP	mg/L	0.0002	Org-022/025	<0.0002	92	<0.0002	<0.0002	0	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	76	60
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.0001	Org-022/025	<0.0001	92	<0.0001	<0.0001	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	120	92	71	77	8	114	63

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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
Samples were out of the recommended holding time for this analysis. - PAH, Hexavalent Chromium.

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SAMPLE RECEIPT ADVICE

Client Details	
Client	JK Environments
Attention	C Ridley

Sample Login Details	
Your reference	E35822PR, Temora
Envirolab Reference	333165-A
Date Sample Received	15/09/2023
Date Instructions Received	29/09/2023
Date Results Expected to be Reported	09/10/2023

Sample Condition	
Samples received in appropriate condition for analysis	Holding time exceedance
No. of Samples Provided	Additional analyses
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Please contact the laboratory within 24 hours if you wish to cancel the aformentioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

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

Analysis Underway, details on the following page:

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Sample ID	Acid Extractable metalsin soil	Misc Soil - Inorg	TCLP Preparation - Acid	Lead	PAHs in TCLP (USEPA 1311)	On Hold
TP101-0-0.1			✓		✓	
TP101-0.4-0.5						✓
TP102-0-0.1			✓		✓	
TP102-0.3-0.4						✓
TP102-0.9-1.0						✓
TP103-0-0.1			✓		✓	
TP103-0.4-0.5						✓
TP104-0-0.1			✓		✓	
TP104-0.4-0.5						✓
TP104-0.9-1.0						✓
TP105-0-0.1			✓		✓	
TP105-0.3-0.4						✓
TP106-0-0.1						✓
TP106-0.4-0.5						✓
TP107-0-0.1						✓
TP107-0.4-0.5						✓
TP108-0-0.1						✓
TP108-0.4-0.5						✓
TP109-0-0.1						✓
TP109-0.4-0.5						✓
TP110-0-0.1						✓
TP110-0.4-0.5						✓
TP111-0-0.1						✓
TP111-0.3-0.4						✓
TP112-0-0.1						✓
TP112-0.4-0.5						✓
TP113-0-0.1						✓
TP113-0.4-0.5						✓
TP113-0.9-1.0			✓		✓	
TP113-1.4-1.5						✓
TP114-0-0.1						✓
TP114-0.3-0.4						✓

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Sample ID	Acid Extractable metalsin soil	Misc Soil - Inorg	TCLP Preparation - Acid	Lead	PAHs in TCLP (USEPA 1311)	On Hold
TP115-0-0.1						✓
TP115-0.2-0.3						✓
TP115-0.7-0.8						✓
TP116-0-0.05						✓
TP116-0.4-0.5						✓
TP117-0-0.1						✓
TP117-0.5-0.6						✓
TP118-0-0.1			✓		✓	
TP118-0.4-0.5						✓
TP119-0-0.1						✓
TP119-0.4-0.5						✓
TP120-0-0.1			✓		✓	
TP120-0.4-0.5						✓
TP121-0-0.1						✓
TP121-0.5-0.6						✓
TP122-0-0.1						✓
TP122-0.4-0.5						✓
TP123-0-0.1		✓				
TP123-0.2-0.3						✓
TP124-0-0.1						✓
TP125-0-0.1						✓
TP125-0.4-0.5						✓
TP125-0.7-0.8						✓
BH126-0.02-0.2						✓
BH126-0.4-0.6						✓
BH126-1.0-1.2						✓
TP127-0-0.1						✓
TP127-0.3-0.4						✓
TP128-0-0.1						✓
TP128-0.4-0.5						✓
TP129-0-0.1						✓
TP129-0.4-0.5						✓

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Sample ID	Acid Extractable metalsin soil	Misc Soil - Inorg	TCLP Preparation - Acid	Lead	PAHs in TCLP (USEPA 1311)	On Hold
TP130-0-0.1						✓
TP130-0.4-0.5		✓				
TP131-0-0.1			✓	✓		
TP131-0.2-0.3	✓					
TP132-0-0.1						✓
TP132-0.2-03						✓
TP133-0-0.1			✓	✓		
TP133-0.2-0.3						✓
TP134-0-0.1			✓		✓	
TP134-0.2-0.3						✓
TP135-0-0.1						✓
TP135-0.3-0.4						✓
TP136 -0-0.1						✓
TP136-0.4-0.5						✓
TP136-0.6-0.7						✓
TP137-0-0.1						✓
TP137-0.4-0.5						✓
TP138-0-0.1						✓
TP138-0.2-0.3						✓
TP139-0-0.1						✓
TP139-0.2-0.3			✓	✓		
TP140-0-0.1						✓
TP140-0.2-0.3						✓
TP140-0.4-0.5						✓
TP141-0-0.1						✓
TP141-0.4-0.5						✓
TP141-0.6-0.7						✓
TP142-0-0.1			✓		✓	
TP142-0.4-0.5		✓				
TP143-0-0.1						✓
TP143-0.2-0.3						✓
TP143-0.7-0.8						✓

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Sample ID	Acid Extractable metalsin soil	Misc Soil - Inorg	TCLP Preparation - Acid	Lead	PAHs in TCLP (USEPA 1311)	On Hold
TP144-0-0.1						✓
TP144-0.2-0.3						✓
TP144-0.7-0.8						✓
TP145-0-0.1						✓
TP145-0.4-0.5						✓
TP146-0-0.05						✓
TP146-0.3-0.4						✓
TP147-0-0.1						✓
TP147-0.2-0.3						✓
TP147-0.6-0.7			✓		✓	
TP147-1.0-1.1						✓
TP148-0-0.1						✓
TP148-0.4-0.5						✓
TP149-0-0.1						✓
TP149-0.2-0.3						✓
TP149-0.5-0.6			✓		✓	
TP149-0.7-0.8		✓				
TP150-0-0.1						✓
TP150-0.4-0.5						✓
TP151-0-0.1						✓
TP151-0.4-0.5						✓
TP152-0-0.1						✓
TP153-0-0.1			✓		✓	
TP153-0.4-0.5						✓
TP153-0.6-0.7		✓				
TP154-0-0.1			✓		✓	
TP154-0.4-0.5						✓
BH155-0.05-0.2			✓		✓	
BH155-0.2-0.5			✓		✓	
BH155-0.5-0.8		✓				
BH155-1.2-1.4						✓
TP156-0-0.1			✓		✓	

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Sample ID	Acid Extractable metalsin soil	Misc Soil - Inorg	TCLP Preparation - Acid	Lead	PAHs in TCLP (USEPA 1311)	On Hold
TP156-0.2-0.3						✓
BH157-0.03-0.3						✓
BH157-0.3-0.6						✓
BH157-0.7-1.0						✓
BH158-0.04-0.3						✓
BH158-0.3-0.6						✓
TP159-0-0.1						✓
TP159-0.1-0.2						✓
TP159-0.4-0.5						✓
TP159-0.6-0.7						✓
TP160-0-0.1						✓
TP160-0.2-0.3						✓
TP161-0-0.1			✓		✓	
TP161-0.4-0.5						✓
BH162-0.04-0.2			✓		✓	
BH162-0.4-0.6						✓
BH162-1.2-1.4						✓
TP163-0-0.1						✓
TP163-0.4-0.5						✓
SDUP106						✓
SDUP107						✓
SDUP108						✓
SDUP109						✓
SDUP110						✓
TB-S101						✓
TB-S102						✓
FR-101						✓
FR-102						✓
FCF101						✓
BH						✓
TS-S101						✓
TS-S102						✓

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Sample ID	Acid Extractable metalsin soil	Misc Soil - Inorg	TCLP Preparation - Acid	Lead	PAHs in TCLP (USEPA 1311)	On Hold
TP124 - [TRIPLICATE]-0-0.1						✓

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

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

Anna Bui

From:	Craig Ridley <CRidley@jkenvironments.com.au>
Sent:	Friday, 29 September 2023 11:40 AM
To:	Samplereceipt
Cc:	Stuart Chen
Subject:	333165 - E35822PR, Temora - Additional Testing

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Good morning team,

Can we please arrange the following additional testing on standard turnaround:

	Sample ID	Test Required
1	TP101 (0-0.1)	TCLP PAH
3	TP102 (0-0.1)	TCLP PAH
6	TP103 (0-0.1)	TCLP PAH
8	TP104 (0-0.1)	TCLP PAH
11	TP105 (0-0.1)	TCLP PAH
29	TP113 (0.9-1.0)	TCLP PAH
40	TP118 (0-0.1)	TCLP PAH
44	TP120 (0-0.1)	TCLP PAH
50	TP123 (0-0.1)	Hexavalent Chromium
66	TP130 (0.4-0.5)	Hexavalent Chromium
67	TP131 (0-0.1)	TCLP Lead
68	TP131 (0.2-0.3)	Lead
71	TP133 (0-0.1)	TCLP Lead
73	TP134 (0-0.1)	TCLP PAH
85	TP139 (0.2-0.3)	TCLP Lead
92	TP142 (0-0.1)	TCLP PAH
93	TP142 (0.4-0.5)	Hexavalent Chromium
106	TP147 (0.6-0.7)	TCLP PAH
112	TP149 (0.5-0.6)	TCLP PAH
113	TP149 (0.7-0.8)	Hexavalent Chromium
119	TP153 (0-0.1)	TCLP PAH
121	TP153 (0.6-0.7)	Hexavalent Chromium
122	TP154 (0-0.1)	TCLP PAH
124	BH155 (0.05-0.2)	TCLP PAH
125	BH155 (0.2-0.5)	TCLP PAH
126	BH155 (0.5-0.8)	Hexavalent Chromium
128	TP156 (0-0.1)	TCLP PAH
141	TP161 (0-0.1)	TCLP PAH
143	BH162 (0.04-0.2)	TCLP PAH

ELS REF: 333165-A
TAT: STANDARD
DUE: 9/10/23
AB

Please let me know if there are any issues.

Regards
Craig Ridley

Associate | Environmental Scientist

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CERTIFICATE OF ANALYSIS 39697

Client Details

Client	JK Environments
Attention	Craig Ridley
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E35822PR**
Number of Samples	5 Soil
Date samples received	19/09/2023
Date completed instructions received	19/09/2023

Analysis Details

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

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

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

Report Details

Date results requested by	25/09/2023
Date of Issue	25/09/2023

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Results Approved By
Chris De Luca, Assistant Lab Manager
Tara White, Metals Team Leader
Tianna Milburn, Senior Chemist

Authorised By
Pamela Adams, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		39697-1	39697-2	39697-3	39697-4	39697-5
Your Reference	UNITS	SDUP101	SDUP102	SDUP103	SDUP104	SDUP105
Date Sampled		06/09/2023	06/09/2023	06/09/2023	06/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Date analysed	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
vTRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
TRH 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 BTEX	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	86	82	82	84	84

TRH Soil C10-C40 NEPM						
Our Reference		39697-1	39697-2	39697-3	39697-4	39697-5
Your Reference	UNITS	SDUP101	SDUP102	SDUP103	SDUP104	SDUP105
Date Sampled		06/09/2023	06/09/2023	06/09/2023	06/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Date analysed	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
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	%	97	94	92	87	88

PAHs in Soil						
Our Reference		39697-1	39697-2	39697-3	39697-4	39697-5
Your Reference	UNITS	SDUP101	SDUP102	SDUP103	SDUP104	SDUP105
Date Sampled		06/09/2023	06/09/2023	06/09/2023	06/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Date analysed	-	22/09/2023	22/09/2023	22/09/2023	22/09/2023	22/09/2023
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	0.2	<0.1	<0.1	0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.4	0.6	<0.1	<0.1	0.5
Pyrene	mg/kg	0.3	0.6	<0.1	<0.1	0.5
Benzo(a)anthracene	mg/kg	<0.1	0.2	<0.1	<0.1	0.1
Chrysene	mg/kg	0.1	0.3	<0.1	<0.1	0.1
Benzo(b,j&k)fluoranthene	mg/kg	0.2	0.6	<0.2	<0.2	0.4
Benzo(a)pyrene	mg/kg	0.15	0.38	<0.05	<0.05	0.21
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	0.3	<0.1	<0.1	0.2
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	0.3	<0.1	<0.1	0.2
Total +ve PAH's	mg/kg	1.6	3.4	<0.05	<0.05	2.5
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	0.6	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d_{14}	%	100	100	96	96	98

OCP in Soil			
Our Reference		39697-1	39697-3
Your Reference	UNITS	SDUP101	SDUP103
Date Sampled		06/09/2023	06/09/2023
Type of sample		Soil	Soil
Date extracted	-	20/09/2023	20/09/2023
Date analysed	-	22/09/2023	22/09/2023
alpha-BHC	mg/kg	<0.1	<0.1
Hexachlorobenzene	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Total +ve reported Aldrin + Dieldrin	mg/kg	<0.1	<0.1
Total +ve reported DDT+DDD+DDE	mg/kg	<0.1	<0.1
Surrogate 2-chlorophenol-d4	%	82	82

OP in Soil			
Our Reference		39697-1	39697-3
Your Reference	UNITS	SDUP101	SDUP103
Date Sampled		06/09/2023	06/09/2023
Type of sample		Soil	Soil
Date extracted	-	20/09/2023	20/09/2023
Date analysed	-	22/09/2023	22/09/2023
Azinphos-methyl	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Dichlorovos	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1
Methyl Parathion	mg/kg	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1
Surrogate 2-chlorophenol-d4	%	82	82

PCBs in Soil			
Our Reference		39697-1	39697-3
Your Reference	UNITS	SDUP101	SDUP103
Date Sampled		06/09/2023	06/09/2023
Type of sample		Soil	Soil
Date extracted	-	20/09/2023	20/09/2023
Date analysed	-	22/09/2023	22/09/2023
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 2-fluorobiphenyl	%	90	88

Acid Extractable metals in soil						
Our Reference		39697-1	39697-2	39697-3	39697-4	39697-5
Your Reference	UNITS	SDUP101	SDUP102	SDUP103	SDUP104	SDUP105
Date Sampled		06/09/2023	06/09/2023	06/09/2023	06/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
Date analysed	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
Arsenic	mg/kg	6	5	16	8	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	22	21	61	63	39
Copper	mg/kg	290	120	260	140	69
Lead	mg/kg	39	7	3	5	15
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	8	14	14	11
Zinc	mg/kg	71	34	36	33	41

Moisture						
Our Reference		39697-1	39697-2	39697-3	39697-4	39697-5
Your Reference	UNITS	SDUP101	SDUP102	SDUP103	SDUP104	SDUP105
Date Sampled		06/09/2023	06/09/2023	06/09/2023	06/09/2023	06/09/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/09/2023	20/09/2023	20/09/2023	20/09/2023	20/09/2023
Date analysed	-	21/09/2023	21/09/2023	21/09/2023	21/09/2023	21/09/2023
Moisture	%	4.2	12	14	14	16

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105°C for a minimum of 12 hours.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	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. 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-021/022	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD or GC-MS. 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	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane 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, For OCs 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.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. 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. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			20/09/2023	[NT]	[NT]	[NT]	[NT]	20/09/2023	[NT]
Date analysed	-			21/09/2023	[NT]	[NT]	[NT]	[NT]	21/09/2023	[NT]
vTRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	83	[NT]
vTRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	83	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	80	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	83	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	85	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	82	[NT]	[NT]	[NT]	[NT]	80	[NT]

QUALITY CONTROL: TRH Soil C10-C40 NEPM					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			20/09/2023	[NT]	[NT]	[NT]	[NT]	20/09/2023	[NT]
Date analysed	-			21/09/2023	[NT]	[NT]	[NT]	[NT]	21/09/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	79	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	87	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	79	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	87	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate o-Terphenyl	%		Org-020	88	[NT]	[NT]	[NT]	[NT]	85	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			20/09/2023	[NT]	[NT]	[NT]	[NT]	20/09/2023	[NT]
Date analysed	-			22/09/2023	[NT]	[NT]	[NT]	[NT]	22/09/2023	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Benzo(b,j&k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	92	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d_{14}	%		Org-022/025	92	[NT]	[NT]	[NT]	[NT]	114	[NT]

QUALITY CONTROL: OCP in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			20/09/2023	[NT]	[NT]	[NT]	[NT]	20/09/2023	[NT]
Date analysed	-			22/09/2023	[NT]	[NT]	[NT]	[NT]	22/09/2023	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Hexachlorobenzene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	70	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-chlorophenol-d4	%		Org-022/025	80	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: OP in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	39697-3
Date extracted	-			20/09/2023	1	20/09/2023	20/09/2023		20/09/2023	20/09/2023
Date analysed	-			22/09/2023	1	22/09/2023	22/09/2023		22/09/2023	22/09/2023
Azinphos-methyl	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	104	107
Chlorpyrifos-methyl	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	108	110
Diazinon	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	104	107
Dichlorovos	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	128	133
Fenitrothion	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	94	106
Malathion	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Methyl Parathion	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-chlorophenol-d4	%		Org-022/025	80	1	82	80	2	86	86

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			20/09/2023	[NT]	[NT]	[NT]	[NT]	20/09/2023	[NT]
Date analysed	-			22/09/2023	[NT]	[NT]	[NT]	[NT]	22/09/2023	[NT]
Aroclor 1016	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Aroclor 1260	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-fluorobiphenyl	%		Org-022/025	88	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			21/09/2023	[NT]	[NT]	[NT]	[NT]	21/09/2023	[NT]
Date analysed	-			21/09/2023	[NT]	[NT]	[NT]	[NT]	21/09/2023	[NT]
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	[NT]	[NT]	104	[NT]
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	[NT]	[NT]	107	[NT]
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]

Result Definitions

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

Quality Control Definitions

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

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

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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

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

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

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	JK Environments
Attention	Craig Ridley

Sample Login Details	
Your reference	E35822PR
Envirolab Reference	39697
Date Sample Received	19/09/2023
Date Instructions Received	19/09/2023
Date Results Expected to be Reported	25/09/2023

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	5 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	17.8
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Pamela Adams	Chris De Luca
Phone: 03 9763 2500	**Phone: 03 9763 2500**
Fax: 03 9763 2633	**Fax: 03 9763 2633**
Email: padams@envirolab.com.au	**Email: cdeluca@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	TRH Soil C10-C40 NEPM	PAHs in Soil	OCP in Soil	OP in Soil	PCBsin Soil	Acid Extractable metalsin soil
SDUP101	✓	✓	✓	✓	✓	✓	✓
SDUP102	✓	✓	✓				✓
SDUP103	✓	✓	✓	✓	✓	✓	✓
SDUP104	✓	✓	✓				✓
SDUP105	✓	✓	✓				✓

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

Additional Info

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

Copy

COC: 15/9/23 1357

SAMPLE AND CHAIN OF CUSTODY FORM

TO:	JKE Job Number: E35822PR	FROM: JKEnvironments
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	Date Results Required: STANDARD Page: 1 of 7	REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location: Temora

Sampler: AD

Sample Preserved in Esky on Ice

Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
6/09/2023	1	TP101	0-0.1	G, A	1.7	F: Silty Clay		X										
6/09/2023	2	TP101	0.4-0.5	G, A	1.6	Silty Clay				X								
6/09/2023	3	TP102	0-0.1	G, A	1.5	F: Silty Clay	X											
6/09/2023	4	TP102	0.3-0.4	G, A	1.7	F: Silty Clay												
6/09/2023	5	TP102	0.9-1.0	G, A	1.8	Silty Clay												
6/09/2023	6	TP103	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	7	TP103	0.4-0.5	G, A	2.1	Silty Clay												
6/09/2023	8	TP104	0-0.1	G, A	2	F: Silty Clay	X											
6/09/2023	9	TP104	0.4-0.5	G, A	1.8	F: Silty Clay												
6/09/2023	10	TP104	0.9-1.0	G, A	2.1	Silty Clay												
6/09/2023	11	TP105	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	12	TP105	0.3-0.4	G, A	1.1	F: Silty Clay												
6/09/2023	13	TP106	0-0.1	G, A	1.3	F: Silty Clay	X											
6/09/2023	14	TP106	0.4-0.5	G, A	1.9	Silty Clay				X								
6/09/2023	15	TP107	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	16	TP107	0.4-0.5	G, A	1.5	Silty Clay												
6/09/2023	17	TP108	0-0.1	G, A	0.8	F: Silty Clay	X											
6/09/2023	18	TP108	0.4-0.5	G, A	22.5	Silty Clay				X								
6/09/2023	19	TP109	0-0.1	G, A	1.4	F: Silty Clay		X										
6/09/2023	20	TP109	0.4-0.5	G, A	2.1	F: Silty Clay												
6/09/2023	21	TP110	0-0.1	G, A	2	Silty Clay								X				
6/09/2023	22	TP110	0.4-0.5	G, A	1.8	Silty Clay												
6/09/2023	23	TP111	0-0.1	G, A	1.2	F: Silty Clay		X										
6/09/2023	24	TP111	0.3-0.4	G, A	1.2	Silty Clay												
6/09/2023	25	TP112	0-0.1	G, A	1	F: Silty Clay	X											

Envirolab Services
25 Research Drive
Croydon South VIC 3136
Ph: (03) 9763 2500
Job No: 39697
Date Received: 19/9/23
Time Received: 12:15pm
Received By: AG
Temp: Cool/Ambient 17.8°C
Cooling: Ice/Icepack
Security: Intact/Broken/None

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Relinquished By: BP/AD

Christine Ho ELS SYD

Date: 15.9.23

18/9/23 ~~1150~~

Time: 130pm

1130

Received By:

Date:

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 333165
Date Received: 15/9/23
Time Received: 1630
Received By:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

SAMPLE AND CHAIN OF CUSTODY FORM

TO: ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E35822PR Date Results Required: STANDARD Page: 6 of 7		**FROM:** JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location: Temora

Sampler: AD

Sample Preserved in Esky on Ice

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
							Tests Required											
13/09/2023	127	BH155	1.2-1.4	G, A	5.9	XW Andesite												
8/09/2023	128	TP156	0-0.1	G, A	0.4	F: Silty Clay		X										
8/09/2023	129	TP156	0.2-0.3	G, A	0.3	F: Silty Clay												
13/09/2023	130	BH157	0.03-0.3	G, A	4.1	F: Silty Clay	X											
13/09/2023	131	BH157	0.3-0.6	G, A	7	Silty Clay												
13/09/2023	132	BH157	0.7-1.0	G, A	6.2	XW Andesite												
13/09/2023	133	BH158	0.04-0.3	G, A	4.6	F: Silty Sandy Clay		X										
13/09/2023	134	BH158	0.3-0.6	G, A	8.1	XW Andesite				X								
11/09/2023	135	TP159	0-0.1	G, A	2.9	F: Clayey Silt	X											
11/09/2023	136	TP159	0.1-0.2	G, A	2.3	F: Clayey Silt												
11/09/2023	137	TP159	0.4-0.5	G, A	1.6	F: Silty Sandy Clay												
11/09/2023	138	TP159	0.6-0.7	G, A	3.1	XW Andesite												
11/09/2023	139	TP160	0-0.1	G, A	1.6	F: Silty Clay		X										
11/09/2023	140	TP160	0.2-0.3	G, A	5.8	Silty Clay				X								
11/09/2023	141	TP161	0-0.1	G, A	2.4	F: Silty Clay	X											
11/09/2023	142	TP161	0.4-0.5	G, A	3.4	Silty Clay												
13/09/2023	143	BH162	0.04-0.2	G, A	6	F: Silty Clay		X										
13/09/2023	144	BH162	0.4-0.6	G, A	3.8	F: Silty Sandy Clay												
13/09/2023	145	BH162	1.2-1.4	G, A	3.5	Silty Clay				X						X		
8/09/2023	146	TP163	0-0.1	G, A	0.7	F: Silty Clay	X											
8/09/2023	147	TP163	0.4-0.5	G, A	0.9	Silty Clay												
1 6/09/2023	#	SDUP101	-	G	-	Duplicate								X				
2 6/09/2023	#	SDUP102	-	G	-	Duplicate									X			
3 6/09/2023	#	SDUP103	-	G	-	Duplicate								X				
4 6/09/2023	#	SDUP104	-	G	-	Duplicate									X			

Remarks (comments/detection limits required): # to Envirolab VIC *		Sample Containers: G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag		
Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

333165
15/9/23
1630
RM

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E35822PR Date Results Required: STANDARD Page: 7 of 7	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Craig Ridley cridley@jkenvironments.com.au

Location: Temora

Sampler: AD

Sample Preserved in Esky on Ice

Tests Required

	Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 3aNEPM		Combo 3	Asbestos (detection)	BTEX		Combo 6	Combo 3	pH/CEC/Clay content		
	6/09/2023	#	SDUP105	-	G	-	Duplicate									X			
	6/09/2023	148	SDUP106	-	G	-	Duplicate									X			
	7/09/2023	149	SDUP107	-	G	-	Duplicate									X			
	8/09/2023	150	SDUP108	-	G	-	Duplicate								X				
	11/09/2023	151	SDUP109	-	G	-	Duplicate								X				
	11/08/2023	152	SDUP110	-	G	-	Duplicate									X			
	6-8/09/23	153	TB-S101	-	G	-	Trip Blank				X								
	11-13/09/23	154	TB-S102	-	G	-	Trip Blank				X								
	6-8/09/23	NR	TS-S101	-	V	-	Trip Spike						X						
	11-13/09/23	NR	TS-S102	-	V	-	Trip Spike						X						
	7/09/2023	155	FR-101	-	#	-	Field Rinsate				X								
	13/09/2023	156	FR-102	-	#	-	Field Rinsate				X								
	12/09/2023	157	FCF101	-	A	-	Fragment					X							
Extra		158	BM																

Remarks (comments/detection limits required):
to Envirolab VIC (*)

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Relinquished By: BP/AD	Date: 15.9.23	Time: 130pm	Received By:	Date:

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Appendix F: Report Explanatory Notes

QA/QC Definitions

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[17] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[18]. The NEPM (2013) is consistent with these documents.

A. Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

B. Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

C. Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

D. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

E. Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;
- All blank data reported;

[17] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)
[18] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide*

- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

F. Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

G. Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

H. Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{(\text{Spike Sample Result} - \text{Sample Result}) \times 100}{\text{Concentration of Spike Added}}$$

I. Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

J. Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

Appendix G: Data (QA/QC) Evaluation

Data (QA/QC) Evaluation

A. INTRODUCTION

This Data (QA/QC) Evaluation forms part of the validation process for the DQOs documented in the SAQP attached in Appendix I of this report. Checks were made to assess the data in terms of precision, accuracy, representativeness, comparability and completeness. These 'PARCC' parameters are referred to collectively as DQIs and are defined in the Report Explanatory Notes attached in the report appendices.

1. Field and Laboratory Considerations

The quality of the analytical data produced for this project has been considered in relation to the following:

- Sample collection, storage, transport and analysis;
- Laboratory PQLs;
- Field QA/QC results; and
- Laboratory QA/QC results.

2. Field QA/QC Samples and Analysis

The results for the field QA/QC samples are detailed in Table Q1 attached to the investigation report and are discussed in the subsequent sections of this Data (QA/QC) Evaluation report. A summary of the field QA/QC samples collected and analysed for this investigation is provided in the following table:

Sample Type	Number Analysed	Frequency (of Sample Type)
Intra-laboratory duplicate (soil)	5	Approximately 5% of primary samples
Inter-laboratory duplicate (soil)	5	As above
Trip spikes **(**soil)	2	Two for the investigation to demonstrate adequacy of preservation, storage and transport methods
Trip blanks (soil)	2	Two for the investigation to demonstrate adequacy of storage and transport methods
Rinsate (soil sampling auger)	2	Two for the investigation to demonstrate adequacy of decontamination methods

3. Data Assessment Criteria

JKE adopted the following criteria for assessing the field and laboratory QA/QC analytical results:

Field Duplicates

Acceptable targets for precision of field duplicates in this report will be 30% or less, consistent with NEPM (2013). RPD failures will be considered qualitatively on a case-by-case basis taking into account factors such as the concentrations used to calculate the RPD (i.e. RPD exceedance where concentrations are close to the PQL are typically not as significant as those where concentrations are reported at least five or 10 times the PQL), sample type, collection methods and the specific analyte where the RPD exceedance was reported.

Field/Trip Blanks and Rinsates

Acceptable targets for field blank and rinsate samples in this report will be less than the PQL for organic analytes. Metals will be considered on a case-by-case basis with regards to typical background concentrations in soils and published drinking water guidelines for waters.

Trip Spikes

Acceptable targets for trip spike samples in this report will be 70% to 130%.

Laboratory QA/QC

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the laboratory reports. These criteria were developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the acceptable limits adopted by the primary laboratory (Envirolab) is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics;
- 60-140% recovery acceptable for organics; and
- 10-140% recovery acceptable for VOCs.

Surrogate Spikes

- 60-140% recovery acceptable for general organics; and
- 10-140% recovery acceptable for VOCs.

Method Blanks

- All results less than PQL.

B. <u>DATA EVALUATION</u>

1. <u>Sample Collection, Storage, Transport and Analysis</u>

Samples were collected by trained field staff in accordance with our standard sampling procedures. Field sampling procedures were designed to be consistent with relevant guidelines, including NEPM (2013) and other guidelines made under the CLM Act 1997.

Appropriate sample preservation, handling and storage procedures were adopted. Laboratory analysis was undertaken generally in accordance with Schedule B(3) of NEPM (2013) and the laboratory NATA accredited methodologies. Envirolab noted that the asbestos results were reported to be consistent with the recommendations in NEPM (2013), however this level of reporting is outside the scope of their NATA accreditation. In the absence of other available analytical methods for asbestos, this was found to be acceptable for the purpose of this investigation.

JKE note that the temperature on receipt of inter-laboratory duplicate soil samples was reported to be up to 17.8°C. JKE understand that the temperature is measured at the laboratory using an infrared temperature probe by scanning the outside of the sample container (i.e. one sample jar/container at the time of registering the samples). This procedure is not considered to be robust as there is a potential for the outside of the jar to warm to ambient temperature, or at least to increase from that of the internal contents, relatively quickly. On this basis, JKE is of the opinion that the temperatures reported on the Sample Receipts are unlikely to be reliable or representative of the overall batch. This is further supported by the trip spike recovery results (discussed further below) which reported adequate recovery in the range of 86% to 99%.

JKE consider it is possible that the increase in temperature for the inter-laboratory duplicate samples may also be attributed to the length of time in transit to the secondary laboratory which is based in Victoria. However, based on the BTEX and TRH (F1 and F2) concentrations reported for the primary samples, JKE consider this does not adversely impact on the validity of the data set as a whole.

The laboratory analysis was generally undertaken within the specified holding times. The following exceedances of holding times were identified:

- Report 333165 – The analysis of pH in soils was undertaken approximately one week beyond the recommended holding time. JKE note that the pH analysis was undertaken to establish site-specific EILs. The delay in analysis was associated with the length of the field work program and remote location of the site in relation to the analytical laboratory. As the samples were stored in appropriate conditions (i.e. chilled), and the results indicated the soils to be neutral to slightly basic, JKE consider it is unlikely that the pH of the soil sample would change dramatically and that the results are sufficiently reliable for the purpose of establishing site-specific EILs;
- Report 333165-A – The analysis of TCLP PAH was undertaken approximately 2-3 weeks beyond the recommended holding time, as the analysis was scheduled following review of the initial results. The TCLP PAH values were utilised to assess the leachable PAH concentrations. As the samples were stored under laboratory conditions, JKE consider it is unlikely that the leachable PAH concentrations would change dramatically over the relatively short period of time, particularly given that the only contaminant being assessed via the TCLP is benzo(a)pyrene which is a high molecular weight PAH compound with a low vapour pressure (i.e. it is less susceptible to degradation over time). On that basis, JKE consider that the results are sufficiently reliable for the purpose of assigning a preliminary waste classification to the soils; and
- Report 333165-A – The laboratory indicated that hexavalent chromium analysis was undertaken outside of the recommended holding time of 28 days. JKE has reviewed the dates of sampling and analysis, and notes that analysis was undertaken within 22 to 28 days from the date of sampling. On this basis, JKE consider the analysis was undertaken within the limits of the recommended holding time.

Review of the project data also indicated that:

- COC documentation was adequately maintained;
- Sample receipt advice documentation was provided for all sample batches;

- All analytical results were reported; and
- Consistent units were used to report the analysis results.

2. Laboratory PQLs

Appropriate PQLs were adopted for the analysis and all PQLs were below the SAC.

3. Field QA/QC Sample Results

Field Duplicates

The results indicated that field precision was acceptable. RPD non-conformances were reported for some analytes as discussed below:

- Elevated RPDs were reported for two PAH compounds in SDUP101/TP112 (0-0.1m);
- Elevated RPDs were reported for lead, TRH F3 and two PAH compounds in SDUP102/TP111 (0-0.1m);
- Elevated RPDs were reported for several heavy metals in SDUP103/TP110 (0-0.1m);
- An elevated RPD was reported for lead in SDUP104/TP109 (0-0.1m);
- Elevated RPDs were reported for two PAH compounds in SDUP105/TP107 (0-0.1m);
- Elevated RPDs were reported for several PAH compounds in SDUP106/TP102 (0-0.1m);
- Elevated RPDs were reported for TRH F1 and two PAH compounds in SDUP107/TP116 (0-0.05m);
- Elevated RPDs were reported for TRH F3 and three PAH compounds in SDUP108/TP145 (0-0.1m);
- Elevated RPDs were reported for TRH F3 and several PAH compounds in SDUP109/TP143 (0-0.1m); and
- Elevated RPDs were reported for benzo(a)pyrene and several heavy metals in SDUP110/TP138 (0-0.1m).

The RPDs indicated some variability, predominantly associated with PAHs. The RPD exceedances were however predominantly considered to be associated with results close to the PQLs. Values outside the acceptable limits have been attributed to results close to the PQLs as well as sample heterogeneity and the difficulties associated with obtaining homogenous duplicate samples of heterogeneous matrices. As both the primary and duplicate sample results were compared to the SAC, the exceedances are not considered to have had an adverse impact on the data set as a whole.

Trip Blanks

During the investigation, two soil trip blanks were placed in the eskies during sampling and transported back to the laboratory. The soil trip blank analysis results were all less than the PQLs with the exception of chromium, copper, lead and zinc with reported concentrations ranging from 1mg/kg to 3mg/kg. Low level metals concentrations are typical in washed sand which is utilised as blank material. In JKE's experience, the concentrations reported were consistent with background concentrations in a sand matrix and were not indicative of cross-contamination. On this basis, cross contamination between samples that may have significance for data validity did not occur.

Rinsates

All results were below the PQL with the exception of copper which was recorded to be 0.07mg/L in both rinsate samples. Low concentrations of copper are typical within potable water (which is utilised in the decontamination process) and is likely associated with copper pipe work within supply infrastructure. JKE note that the Australian drinking water guideline for copper is 2mg/L. On this basis, cross contamination between samples that may have significance for data validity did not occur.

Trip Spikes

The results ranged from 86% to 99% and indicated that field preservation methods were appropriate.

4. Laboratory QA/QC

The analytical methods implemented by the laboratory were performed in accordance with their NATA accreditation and were consistent with Schedule B(3) of NEPM (2013). The frequency of data reported for the laboratory QA/QC (i.e. duplicates, spikes, blanks, LCS) was considered to be acceptable for the purpose of this investigation. A review of the laboratory QA/QC data identified the following minor non-conformances:

- Report 333165 – RPD exceedances were reported for several metals in one soil sample. The laboratory issued the result as a triplicate sample;
- Report 333165 – An elevated RPD was reported for PAHs in one soil sample. The laboratory considered the RPD was acceptable due to the non-homogenous nature of the sample; and
- Report 333165 – Matrix spike recoveries were not possible for several PAHs in two samples due to interference from high analyte concentrations within the samples. Acceptable recoveries were obtained for the LCS.

The laboratory QA/QC non-conformances were infrequent and were considered to be minor in the context of the overall dataset. JKE considered all primary and laboratory duplicate and triplicate results, therefore the DSI risk assessment was considered to be appropriate.

C. DATA QUALITY SUMMARY

JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

Non-conformances were reported for some field QA/QC samples and laboratory QA/QC analysis. These non-conformances were considered to be sporadic and minor, and were not considered to be indicative of systematic sampling or analytical errors. On this basis, these non-conformances are not considered to materially impact the report findings.

Appendix H: Guidelines and Reference Documents

Acid Sulfate Soils Management Advisory Committee (ASSMAC), (1998). Acid Sulfate Soils Manual

Australian and New Zealand Environment Conservation Council (ANZECC), (2000). Australian and New Zealand Guidelines for Fresh and Marine Water Quality

Canadian Council of Ministers of the Environment, (1999). Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)

CRC Care, (2011). Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document

Contaminated Land Management Act 1997 (NSW)

Department of Land and Water Conservation, (1997). 1:25,000 Acid Sulfate Soil Risk Map Series

Managing Land Contamination, Planning Guidelines SEPP55 – Remediation of Land (1998)

National Environment Protection Council (NEPC), (2013). National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)

National Health and Medical Research Council (NHMRC), (2021). National Water Quality Management Strategy, Australian Drinking Water Guidelines 2011

NSW Department of Environment and Conservation, (2007). Guidelines for the Assessment and Management of Groundwater Contamination

NSW EPA, (1995). Contaminated Sites Sampling Design Guidelines

NSW EPA, (2014). Waste Classification Guidelines - Part 1: Classifying Waste

NSW EPA, (2015). Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997

NSW EPA, (2017). Guidelines for the NSW Site Auditor Scheme, 3rd Edition

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

NSW Health Infrastructure, (2021). Design Guidance Note No. 030. Site Investigations: Project Opportunities and Constraints

NSW Health Infrastructure, (2020). Design Guidance Note No. 060. Contaminated Land Management Framework

Olszowy, H., Torr, P., and Imray, P., (1995). Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

Protection of the Environment Operations Act 1997 (NSW)

State Environmental Planning Policy (Resilience and Hazards) 2021 (NSW)

World Health Organisation (WHO), (2008). Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality

Western Australia Department of Health, (2021). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia

Appendix I: Sampling, Analysis & Quality Plan

APPENDIX I

REPORT TO

HEALTH INFRASTRUCTURE

ON

SAMPLING, ANALYSIS AND QUALITY PLAN (SAQP)

FOR

DETAILED (STAGE 2) SITE INVESTIGATION (DSI)

AT

TEMORA HOSPITAL, 169-189 LOFTUS STREET, TEMORA, NSW

Date: 17 August 2023
Ref: E35822PRrpt2

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APPENDIX I

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For and on behalf of
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DOCUMENT REVISION RECORD

Report Reference	Report Status	Report Date
E35822PRrpt2	Final Report	17 August 2023

This Report (which includes all attachments and annexures) has been prepared by JKE for the Client, and is intended for the use only by that Client.

This Report has been prepared pursuant to a contract between JKE and the Client and is therefore subject to:
a) JKE's proposal in respect of the work covered by the Report;
b) The limitations defined in the client's brief to JKE; and
c) The terms of contract between JKE and the Client, including terms limiting the liability of JKE.

If the Client, or any person, provides a copy of this Report to any third party, such third party must not rely on this Report, except with the express written consent of JKE which, if given, will be deemed to be upon the same terms, conditions, restrictions and limitations as apply by virtue of (a), (b), and (c) above.

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List of Tables

Attachments

Abbreviations

Asbestos Fines/Fibrous Asbestos	**AF/FA**
Ambient Background Concentrations	**ABC**
Asphaltic Concrete	**AC**
Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
Area of Environmental Concern	**AEC**
Australian Height Datum	**AHD**
Acid Sulfate Soil	**ASS**
Below Ground Level	**BGL**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
Before You Dig Australia	**BYDA**
Cation Exchange Capacity	**CEC**
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Development Application	**DA**
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Data Quality Objective	**DQO**
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Ecological Investigation Level	**EIL**
Ecological Screening Level	**ESL**
Environment Protection Authority	**EPA**
Fibre Cement Fragment(s)	**FCF**
Hazardous Building Materials	**HAZMAT**
Health Investigation Level	**HILs**
Health Screening Level	**HSL**
International Organisation of Standardisation	**ISO**
JK Environments	**JKE**
JK Geotechnics	**JKG**
Licensed Asbestos Assessor	**LAA**
Lab Control Spike	**LCS**
Map Grid of Australia	**MGA**
National Association of Testing Authorities	**NATA**
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Total Recoverable Hydrocarbons	**TRH**
Trip Spike	**TS**
Upper Confidence Limit	**UCL**
Urban Residential and Public Open Space	**URPOS**
Virgin Excavated Natural Material	**VENM**
Volatile Organic Compounds	**VOC**

Units

Kilometres	**km**
Litres	**L**
Metres BGL	**mBGL**
Metres	**m**
Millivolts	**mV**
Millilitres	**ml or mL**
Micrograms per Litre	**µg/L**
Milligrams per Kilogram	**mg/kg**
Milligrams per Litre	**mg/L**
Parts Per Million	**ppm**
Percentage	**%**
Percentage weight for weight	**%w/w**

1 INTRODUCTION

Health Infrastructure ('the client') commissioned JK Environments (JKE) to undertake a Detailed Site Investigation (DSI) for the proposed hospital redevelopment at Temora Hospital, 169-189 Loftus Street, Temora, NSW ('the site'). The site location is shown on Figure 1 and the investigation will be confined to the site boundaries as shown on Figure 3 attached in the appendices.

The DSI is required to inform the masterplan and design stage of the proposed hospital redevelopment. JKE note that a DSI is the second step in the contaminated land assessment process for planning approval with regards to Chapter 4 of State Environmental Planning Policy (Resilience and Hazards) 2021[1].

This report has been prepared to document the Sampling, Analysis and Quality Plan (SAQP) for the DSI.

JKE have previously undertaken a Preliminary Site Investigation (PSI) at the site. A summary of this information has been included in Section 2. A geotechnical investigation was undertaken in conjunction with the PSI by JK Geotechnics (JKG). Reference is to be made to the JKG geotechnical report[2] for further details.

1.1 Proposed Development Details

JKE understand that the proposed development is currently in the master planning and early design phase of the project. The proposed development will likely include additions to the existing buildings and/or new buildings constructed on the site. The development may also include refurbishment of the existing buildings.

Conceptual drawings were not provided to JKE. However, we anticipate that the proposed development will likely be constructed consistent with the existing levels and expect that only minor earthworks (cut/fill) would be required to accommodate the proposed development.

1.2 Aims and Objectives

The DSI aims to further characterise the site and make an assessment of the soil contamination conditions, and inform the preparation of a Remediation Action Plan (RAP). The objectives of the DSI are to:

- Supplement the PSI data by completing the DSI, including investigation of the soils in accessible areas;
- Assess the potential risks posed by contamination to the receptors identified in the Conceptual Site Model (CSM);
- Provide a preliminary waste classification for off-site disposal of soil;
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

[1] *State Environmental Planning Policy (Resilience and Hazards) 2021* (NSW) (referred to as SEPP Resilience and Hazards 2021)

[2] JKG, (2023). *Report to Health Infrastructure on Geotechnical Investigation for Proposed Alterations and Additions at Temora Hospital, 169-189 Loftus Street, Temora, NSW.* (Ref: 35822YFrpt2, dated 26 May 2023) (referred to as JKG report)

1.3 Scope of Work

The SAQP has been prepared generally in accordance with a JKE proposal (Ref: EP58924PR) of 28 June 2023 and written acceptance from the client of 2 August 2023.

The scope of work included review of the PSI and preparation of an SAQP with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[3], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[4] and Design Guidance Note No. 030 (2021)[5].

A list of reference documents/guidelines is included in the appendices.

[3] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[4] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

[5] Health Infrastructure, (2021). *Design Guidance Note No. 030. Site Investigations: Project Opportunities and Constraints.* (referred to as DGN 030)

2 SITE INFORMATION

2.1 Background

A PSI was previously undertaken by JKE in 2023[6]. The scope of the PSI included a review of site history and site information, a site inspection and soil sampling from 12 locations (BH1 to BH8 and TP13 to TP16 inclusive). The sampling locations are shown on Figure 3 attached in the appendices.

The site was historically used for residential and agricultural (grazing) purposes until the late 1930s, and has been used for a hospital since. Potential contamination sources identified at the site and the immediate surrounds included:

- Historic filling activities;
- Historic agricultural activities;
- Use of pesticides;
- Hazardous building materials present within existing and/or former structures;
- On-site generator and associated fuel storage;
- Maintenance workshop; and
- On-site incinerator and hospital activities.

Key site features are shown on the attached Figure 2.

The PSI identified fill (i.e. historically imported or placed soils) and/or natural clay soils to depths of approximately 0.5m to 2.1m below ground level (BGL), underlain by andesite bedrock. The maximum depth of fill encountered was 1.1m. Groundwater was not encountered during the PSI. The fill typically comprised of silty and/or sandy clay and silty sand, with inclusions of gravel and boulders, volcanic breccia, metal fragments and root fibres. Fibre cement fragments (FCF)/asbestos containing material (ACM) was observed in surficial fill in one location (BH4).

The PSI identified fill soils impacted by asbestos and carcinogenic polycyclic aromatic hydrocarbons (PAHs) at concentrations that were above the adopted site assessment criteria (SAC). Elevated copper concentrations above the SAC were also identified in the majority of the analysed fill, natural soil and rock samples, though were considered to be representative of the regional conditions.

The PSI concluded that the site could be made suitable for the proposed development via remediation. The following was recommended:

- A surface walkover and 'emu-picking' of all visible FCF/ACM from the site surface should be undertaken and an asbestos clearance certificate obtained from a SafeWork NSW licensed asbestos assessor (LAA);
- Interim management of the site is to occur under an Asbestos Management Plan (AMP), until remediation occurs;
- The earthworks and any re-use of material is to adequately consider the presence of copper in the soil in relation to waste classification and potential ecological risks;
- Undertake a DSI to better assess the risks associated with the potential sources of contamination and inform preparation of a RAP;
- A RAP is to be prepared to address the contamination issues identified at the site; and
- The site is to be managed, remediated and validated in accordance with the RAP and AMP.

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[6] JKE, (2023). *Report to Health infrastructure on Preliminary (Stage 1) Site Investigation for Proposed Alterations and Additions at Temora Hospital, 169-189 Loftus Street, Temora,* NSW. (Ref: E35822PRrpt, dated 8 June 2023). (referred to as PSI)

2.2 Site Identification

Table 2-1: Site Identification

Current Site Owner (Certificate of Title):	Health Administration Corporation
Site Address:	169-189 Loftus Street, Temora, NSW
Lot & Deposited Plan:	Lot 2 in DP 572392
Current Land Use:	Hospital
Proposed Land Use:	Hospital
Local Government Area:	Temora Shire Council
Current Zoning:	SP2: Infrastructure
Site Area (m^2) (approx.):	31,770
RL (AHD in m) (approx.):	308-321
Geographical Location (decimal degrees) (approx.):	Latitude: -34.44276 Longitude: 147.5434
Site Location Plan:	Figure 1
Site Features Plan:	Figure 2
Proposed DSI Sample Location Plan:	Figure 3

2.3 Site Description Summary

The site is located in a predominantly residential and rural area of Temora and is bound by Loftus Street to the south and Gloucester Street to the west. The site is located approximately 4km to the south-east of Lake Centenary (a man-made lake across Trigalong Creek).

The regional topography is characterised by gently undulating terrain. The site is located towards the crest of a gently undulating slope which grades down towards the south-west at approximately 5°. Parts of the site appear to have been levelled to account for the slope and accommodate the existing development.

A walkover inspection of the site was undertaken by JKE on 2 May 2023 for the PSI. The inspection was limited to accessible areas of the site and immediate surrounds. An internal inspection of the main hospital and staff accommodation buildings was not undertaken. A summary of the inspection findings is presented below:

- At the time of the inspection, the majority of the site was utilised as a hospital with associated accommodation and maintenance areas;

- The buildings were mostly located within the northern and central portions of the site and appeared to generally be in good condition based on a cursory inspection. The buildings included:
  - A three-storey main hospital building of brick and fibre-cement construction;
  - A two-storey nurses' accommodation building of brick and metal construction; and
  - Several single-storey buildings (ancillary services, maintenance, workshop) typically of brick and metal construction;
- An asphaltic concrete (AC) paved driveway provided vehicular access to the site from Loftus Street in the south-west of the site, and extended to the north-east to and around the main hospital building, connecting with another AC paved driveway providing vehicular egress from the site to Gloucester Street in the north-west of the site. Several on-grade carparks and concrete pathways were observed across the site. The pavement conditions varied from moderate to poor condition based on a cursory inspection, with several cracks, potholes and repaired patches observed;
- Fuels, oils and lubricants were typically stored within the maintenance building. The products were stored in appropriate containers;
- An incinerator was located within the boiler room in the north-west of the site;
- Medium to large trees were observed along the site boundaries. Smaller shrubs and trees were located within the courtyard to the north and south of the main building as well as in other formed gardens across the site. The vegetation appeared to be generally healthy based on a cursory inspection; and
- Sensitive environments such as wetlands, ponds, creeks or extensive areas of native vegetation were not observed on site or in the immediate surrounds.

During the site inspection, JKE observed the following land uses in the immediate surrounds:
- North – low-density residential, the Temora campus of TAFE NSW and residential care facility (Whiddon Group);
- South – Loftus Street with low-density residential beyond;
- East – Utilities infrastructure (transmission tower, substation, pumping station and reservoirs) with vacant agricultural land (possibly grazing) beyond; and
- West – Residential care facility (Whiddon Group) with Gloucester Street beyond.

JKE did not observe any land uses in the immediate surrounds that were identified as potential contamination sources for the site.

2.4 Summary of Geology and Hydrogeology

2.4.1 Regional Geology

Regional geological information presented in the PSI indicated that the site is underlain by Temora Volcanics comprising andesite, trachyandesite, latite and basaltic andesite, though may be obscured by quaternary aged alluvial soils. The alluvial soils are likely present on the lower slopes and toe of the hillside and not within the site boundaries.

2.4.2 Acid Sulfate Soil (ASS) Risk and Planning

Acid sulfate soil (ASS) risk and planning information presented in the PSI indicated that the site is not located within an ASS risk area.

2.4.3 Hydrogeology and Groundwater

Hydrogeological information presented in the PSI indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes fractured or fissured, extensive aquifers of low to moderate productivity. There was a one registered bore within 2km of the site. In summary:

- The registered bore was located approximately 330m to the west of the site;
- The registered bore was intended for use for recreational purposes (assumed to be used for irrigation of recreational areas); and
- The drillers log information identified clay soils to a depth of approximately 41mBGL (with a weathered sandstone layer between approximately 30-32mBGL), underlain by siltstone bedrock.

The information reviewed for the PSI indicated that the subsurface conditions at the site are likely to consist of relatively low permeability (residual) soils overlying shallow bedrock. The potential for viable groundwater abstraction and use of groundwater under these conditions is considered to be low. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur. Use of groundwater is not proposed as part of the development as far as we are aware.

Considering the local topography and surrounding land features, JKE anticipate groundwater to flow towards the north-west. Surface water bodies were not identified in the immediate vicinity of the site. The closest surface water body is an unnamed dam approximately 320m to the north-east of the site. This is cross-gradient from the site and is not considered to be a potential receptor.

2.5 Summary of Site History Information

A time line summary of the historical land uses and activities is presented in the following table. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by JKE.

Table 2-2: Summary of Historical Land Uses / Activities

Year(s)	On-site - Potential Land Use / Activities	Off-site - Potential Land Use / Activities
Prior to 1938	Residential and possibly agricultural (grazing).	Residential and agricultural (grazing).
1930 – 1940	Temora Hospital was constructed.	Residential and agricultural (grazing).
1940 - present	Hospital and associated activities.	Residential and agricultural (grazing). 2010s: Vocational education centre (TAFE) was constructed to the north of the site.

3 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and the review of site history information. Reference should also be made to the figures attached in the appendices.

3.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/AEC and CoPC are presented in the following table:

Table 3-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site has been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated. The PSI identified filling to depths of approximately 0.2mBGL to 1.1mBGL. The fill contained inclusions of demolition rubble (including metal fragments and FCF/ACM).	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), petroleum hydrocarbons (referred to as total recoverable hydrocarbons – TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), PAHs, organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs) and asbestos.
Maintenance Workshop – The site includes a maintenance workshop. It is possible that leaks/spills and/or releases of oils, solvents and fluids (e.g. turpentine/mineral spirits associated with typical painting activities, rather than chlorinated compounds) may have occurred.	Heavy metals, TRHs and PAHs.
On-site Generator – A back-up generator was observed to the west of the main hospital building. The generator appeared to be self-contained. Minor leaks and/or spills of fuel/oils may have occurred during maintenance and/or use.	TRH, BTEX and PAHs.
Historical agricultural use – Prior to 1938, the site was potentially used for agricultural purposes (likely grazing). This could have resulted in contamination across the site via use of machinery, application of pesticides and building/ demolition of various structures. Irrigation pipes made from asbestos cement may also be associated with this AEC.	Heavy metals, TRH, PAHs, OCPs, PCBs and asbestos. JKE note that OCPs only became commercially available in the 1940s. Prior to this time pesticides were predominantly heavy metal compounds.
Use of pesticides – Pesticides may have been used beneath the buildings and/or around the site.	Heavy metals and OCPs.
Hazardous Building Material – Hazardous building materials may be present as a result of former building and demolition activities. These materials have also been identified by various HAZMAT surveys within the existing buildings/ structures on site.	Asbestos, lead and PCBs.

Source / AEC	CoPC
On-site incinerator and Hospital Waste – The site has been used as a hospital since at least 1940. An incinerator is located within the boiler room. Waste generated from the incinerator could have been disposed of on-site during the earlier years of operations, although there was no evidence identified by JKE confirming this. Disposal of human waste is unlikely to have occurred at the site.	Heavy metals, PAHs, heavy fraction TRH.

3.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 3-2: CSM

Potential mechanism for contamination	The potential mechanisms for contamination are most likely to include 'top-down' impacts and spills. There is a potential for sub-surface releases to have occurred if deep fill (or other buried industrial infrastructure) is present, although this is considered to be the least likely mechanism for contamination.
Affected media	For the DSI, soil has been identified as the potentially affected medium. The potential for groundwater impacts is considered to be relatively low. However, groundwater would need to be considered in the event significant contamination was identified in soil.
Receptor identification	Human receptors include site occupants/users (including adults and children) in a healthcare setting, construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users (in a residential setting) and groundwater users (recreation/irrigation use). Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas).
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH, naphthalene and BTEX), and primary/secondary contact with groundwater used for irrigation. The potential for exposure would typically be associated with the construction and excavation works, on-going and future use of the site, or groundwater use associated with the use of bore water. Potential exposure pathways for ecological receptors include primary/direct contact and ingestion. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of vapours within enclosed spaces such as buildings.
Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the buildings (from soil contamination); • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; and • Migration of groundwater off-site into areas where groundwater is being utilised as a resource (i.e. for irrigation).

Presence of preferential pathways for contaminant movement	Major services (i.e. on the 'Before You Dig Australia' [BYDA] plans) were not identified that would be expected to act as preferential pathways for contamination migration. However, it is noted that localised services are likely to exist that are not shown on those plans and the details of such services must be reviewed/considered in further detail in the event mobile contamination is identified.

4 SAMPLING, ANALYSIS AND QUALITY PLAN

4.1 Data Quality Objectives (DQO)

Data Quality Objectives (DQOs) were developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2. The DQOs were prepared with reference to the process outlined in Schedule B2 of NEPM (2013). The seven-step DQO approach for this project is outlined in the following sub-sections.

4.1.1 Step 1 - State the Problem

The CSM identified potential sources of contamination/AEC at the site that may pose a risk to human health and the environment. The PSI identified surficial asbestos impacts in the north-east of the site, elevated concentrations of PAHs in shallow fill in the central portion of the site, and elevated concentrations of copper and zinc were recorded in the shallow fill within the north-east and south-west of the site.

Investigation data is required to better characterise the site, assess the potential risks posed by the contaminants in the context of the proposed development, and inform the preparation of a RAP. This information will be considered by the project team in the design and delivery of the project as well as by the consent authority in exercising its planning functions in relation to the development proposal.

A waste classification is required prior to off-site disposal of excavated soil/bedrock.

4.1.2 Step 2 - Identify the Decisions of the Study

The objectives of the investigation are outlined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- Are any results above the SAC?
- Do potential risks associated with contamination exist, and if so, what are they?
- Is remediation required?
- Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

4.1.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Existing relevant environmental data from previous reports;
- Site information, including site observations and site history documentation;
- Sampling of soil in accessible areas;
- Observations of sub-surface variables such as soil type, photo-ionisation detector (PID) concentrations, odours and staining;
- Laboratory analysis of soils and fibre cement (if encountered) for the CoPC identified in the CSM; and
- Field and laboratory QA/QC data.

4.1.4 Step 4 - Define the Study Boundary

The sampling will be confined to the site boundaries as shown on Figure 3 and will be limited vertically to approximately 0.5-1m into natural soils, with an anticipated maximum investigation depth of approximately 1-2mBGL (spatial boundary). The final depth will depend on the encountered site conditions and will be noted in the DSI. At this stage, the sampling is scheduled to be completed in September 2023 (temporal boundary).

Sampling will not be undertaken within the existing building footprints due to access constraints.

4.1.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

The laboratory data will be assessed against relevant Tier 1 screening criteria (referred to as SAC), as outlined in Section 4.1.5.1 below. Exceedances of the SAC do not necessarily indicate a requirement for remediation or a risk to human health and/or the environment. Exceedances are considered in the context of the CSM and valid SPR-linkages.

For this investigation, the individual results will be assessed as either above or below the SAC. Statistical evaluation of the dataset via calculation of mean values and/or 95% upper confidence limit (UCL) values is not currently proposed as the sampling locations will be selected judgementally.

4.1.5.1 Tier 1 Screening Criteria

Soil data will be compared to relevant Tier 1 screening criteria in accordance with NEPM (2013), as outlined below:

4.1.5.1.1 Human Health

- Health Investigation Levels (HILs) for a 'residential with accessible soils' exposure scenario (HIL-A). HIL-A are selected as a conservative measure due to the extent of landscaping/unsealed areas and the limited information regarding potential development details;
- Health Screening Levels (HSLs) for a 'low-high density residential' exposure scenario (HSL-A & HSL-B). HSLs are calculated based on conservative assumptions including a 'sand' type and a depth interval of 0m to 1m;
- HSLs for direct contact presented in the CRC Care Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[7]; and
- Asbestos will be assessed against the HSL-A criteria in soil and as present or absent in FCF. A summary of the asbestos criteria is provided in the following table:

[7] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

Table 4-1: Details for Asbestos SAC

Guideline	Applicability
Asbestos in Soil	The HSL-A criteria are adopted for the assessment of asbestos in soil. The SAC adopted for asbestos are derived from the NEPM 2013 and are based on the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[8]. The SAC include the following: • No visible asbestos at the surface/in the top 10cm of soil; • <0.01% w/w bonded asbestos containing material (ACM) in soil; and • <0.001% w/w asbestos fines/fibrous asbestos (AF/FA) in soil. Concentrations for bonded ACM concentrations in soil are based on the following equation which is presented in Schedule B1 of NEPM (2013): $\textbf{\% w/w asbestos in soil} = \frac{\textbf{\% asbestos content x bonded ACM (kg)}}{\text{Soil volume (L) x soil density (kg/L)}}$ However, we are of the opinion that the actual soil volume in a 10L bucket varies considerably due to the presence of voids, particularly when assessing cohesive soils. Therefore, each bucket sample was weighed using electronic scales and the above equation was adjusted as follows (we note that the units have also converted to grams): $\textbf{\% w/w asbestos in soil} = \frac{\textbf{\% asbestos content x bonded ACM (g)}}{\text{Soil weight (g)}}$

4.1.5.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for an ‘urban residential and public open space’ (URPOS) exposure scenario. These will only be applied to the top 2m of soil as outlined in NEPM (2013). The criterion for benzo(a)pyrene will be increased from the value presented in NEPM (2013) based on the Canadian Soil Quality Guidelines[9];
- ESLs will be adopted based on the soil type;
- EILs for selected metals will be calculated based on the most conservative added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values presented in the document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[10] as an initial screening; and
- Where exceedances of the EILs are recorded, representative samples will be analysed for pH, cation exchange capacity and/or clay content to select alternative ACL values presented in Schedule B(1) of NEPM (2013), based on the site-specific soil parameters.

4.1.5.1.3 Management Limits for Petroleum Hydrocarbons

Management limits for petroleum hydrocarbons (as presented in Schedule B1 of NEPM 2013) will be considered.

[8] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

[9] Canadian Council of Ministers of the Environment, (1999). *Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)* (referred to as the Canadian Soil Quality Guidelines)

[10] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

4.1.5.1.4 Waste Classification

Data for the preliminary waste classification assessment will be assessed in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (2014)[11].

4.1.5.2 Field and Laboratory QA/QC

Field QA/QC will include analysis of inter-laboratory duplicates (minimum of 5% of primary samples), intra-laboratory duplicates (minimum of 5% of primary samples), trip spike (for volatiles), trip blank and rinsate samples (one per week of sampling to assess the adequacy of field practices).

The suitability of the laboratory data is to be assessed against the laboratory QA/QC criteria which will be outlined in the laboratory reports. These criteria are developed and implemented in accordance with the laboratory's National Association of Testing Authorities, Australia (NATA) accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence are reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, JKE typically adopt the most conservative concentration reported (or in some cases, consider the data from the affected sample as an estimate).

4.1.5.3 Appropriateness of Practical Quantitation Limits (PQLs)

The PQLs of the analytical methods are considered in relation to the SAC to confirm that the PQLs are less than the SAC. In cases where the PQLs are greater than the SAC, a discussion of this is provided.

4.1.6 Step 6 – Specify Limits on Decision Errors

To limit the potential for decision errors, a range of quality assurance processes are adopted. A quantitative assessment of the potential for false positives and false negatives in the analytical results is undertaken with reference to Schedule B(3) of NEPM (2013) using the data quality assurance information collected.

Decision errors can be controlled through the use of hypothesis testing. The test can be used to show either that the baseline condition is false or that there is insufficient evidence to indicate that the baseline condition is false. The null hypothesis is an assumption that is assumed to be true in the absence of contrary evidence. For this investigation, the null hypothesis has been adopted which is that, there is considered to be a complete SPR linkage for the CoPC identified in the CSM unless this linkage can be proven not to (or unlikely to) exist. The null hypothesis has been adopted for this investigation.

Quantitative limits on decision errors have not been established as the sample plan is not probabilistic.

[11] NSW EPA, (2014). *Waste Classification Guidelines, Part 1: Classifying Waste.* (referred to as Waste Classification Guidelines 2014)

4.1.7 Step 7 - Optimise the Design for Obtaining Data

The most resource-effective design will be used in an optimum manner to achieve the investigation objectives. Adjustment of the investigation design can occur following consultation or feedback from project stakeholders. For this investigation, the design will be optimised via consideration of the various lines of evidence used to select the sample locations, the media being sampled, and also by the way in which the data will be collected.

The sampling plan and methodology are outlined in the following sub-sections.

4.2 Soil Sampling Plan and Methodology

The soil sampling plan and methodology adopted for this investigation is outlined in the table below:

Table 4-2: Soil Sampling Plan and Methodology

Aspect	Input
Sampling Density	Samples will be collected from 63 locations (BH/TP101 to BH/TP163) as shown on the attached Figure 3. In conjunction with the PSI sampling locations (BH1 to BH8 and TP13 to TP16), a total of 85 locations will be sampled. Based on the site area (31,770m^2), this number of locations corresponded to a sampling density of approximately one sample per 375m^2 and meets the DGN 030 requirements of a minimum of one sample per 500m^2. Due to the judgemental sampling plan (discussed below), the sampling plan does not strictly meet the requirements for hotspot identification, as outlined in the NSW EPA Sampling Design Part 1 – Application (2022)[12] contaminated land guidelines. Though we note that, overall, the total number of samples exceeds and the density is higher than the total number of locations that are proposed in these guidelines for the hotspot identification method. JKE note that the sampling density is twice the minimum sampling density recommended in the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[13] (endorsed in NEPM 2013). This meets the investigation regime outlined in Table 4 of the WA DoH (2021) guidelines for sites with known asbestos impacts. JKE consider this approach is appropriate due to the presence of asbestos in soils identified in the PSI.
Sampling Plan	The sampling locations will be positioned judgementally for general site coverage. A square grid overlay (approximately 20m x 20m) has been prepared for the site and sample locations will be selected (one per grid) based on access constraints and the existing data set. JKE consider this approach will provide suitable spatial coverage of the site for the DSI objectives. The grid overlay and proposed sampling grids are shown on Figure 3 attached in the appendices. The soil sampling depth will be limited to approximately 0.5-1m into natural soils. Therefore, the test pits and boreholes are anticipated to be limited to depths of approximately 1-2mBGL.
Set-out and Sampling Equipment	Sampling locations will be set out using a tape measure and/or a hand-held GPS unit (with an accuracy of ±5m). In-situ sampling locations will be checked for underground services by an external contractor prior to sampling.

[12] NSW EPA, (2022). *Sampling design part 1 - application.* (referred to as EPA Sampling Design Guidelines 2022)

[13] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

Aspect	Input
	The majority of samples will be collected using an excavator. Samples will be obtained from the test pit walls or directly from the bucket by hand. Where sampling occurs from the bucket, JKE will collect samples from the central portion of large soil clods, or from material that is unlikely to have come into contact with the bucket. Some locations (generally within paved areas) will be sampled using a push tube drill rig and 150mm diameter auger. Soil samples will be obtained from disposable polyethylene push tube samplers and directly from the auger. Each borehole will be initially advanced using push tubes for standard contamination sampling, then subsequently using a 150mm diameter auger to facilitate the asbestos quantification sampling.
Sample Collection and Field QA/QC	Soil samples will be obtained in accordance with our standard field procedures. Soil samples will be collected from the fill and natural profiles based on field observations. The sample depths will be documented on the logs. Samples will be placed in glass jars with plastic caps and Teflon seals with minimal headspace. Samples for asbestos analysis will be placed in zip-lock plastic bags. During sampling, soil at selected depths will be split into primary and duplicate samples for field QA/QC analysis. The field splitting procedure includes alternately filling the sampling containers to obtain a representative split sample.
Field Screening	A portable Photo-ionisation Detector (PID) fitted with a 10.6mV lamp will be used to screen the samples for the presence of volatile organic compounds (VOCs). PID screening for VOCs will be undertaken on soil samples using the soil sample headspace method. VOC data will be obtained from partly filled zip-lock plastic bags following equilibration of the headspace gases. PID calibration records will be maintained throughout the project. The field screening for asbestos quantification included the following: • A representative bulk sample (approximately 10L sample, to the extent achievable based on the sample return) will be collected from fill at 1m intervals, or from each distinct fill profile. The bulk sample intervals will be documented on the logs; • Each bulk sample was weighed using an electronic scale; • Each bulk sample will be passed through a sieve with a 7.1mm aperture and inspected for the presence of fibre cement. Any soil clumps/nodules will be disaggregated. If cohesive soils (i.e. stiff clays) are encountered, the bulk sample will be placed on a contrasting support (blue tarpaulin) and inspected for the presence of FCF; • The condition of fibre cement or any other suspected asbestos materials will be noted on the field records; and • If observed, any fragments of fibre cement in the 10L sample will be collected, placed in a zip-lock bag and assigned a unique identifier. Calculations for asbestos content will be undertaken based on the requirements outlined in Schedule B1 of NEPM (2013).
Decontami-nation and Sample Preservation	Sampling personnel will use disposable nitrile gloves during sampling activities. Re-usable sampling equipment was decontaminated using Decon and potable water.

Aspect	Input
	Soil samples will be preserved by immediate storage in an insulated sample container with ice. On completion of the fieldwork, the samples will be stored temporarily in fridges in the JKE warehouse before being delivered in the insulated sample container to a NATA registered laboratory for analysis under standard chain of custody (COC) procedures.

4.3 Laboratory Analysis and Rationale

Samples are to be analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. The proposed laboratory details are provided in the table below:

Table 4-3: Laboratory Details

Samples	Laboratory
All primary samples and field QA/QC samples including (intra-laboratory duplicates, trip blanks, trip spikes and field rinsate samples)	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)
Inter-laboratory duplicates	Envirolab Services Pty Ltd VIC, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)

An allowance has been made for the following analysis:

- Up to 93 selected soil samples will be analysed for: heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc); PAHs; TRH; and BTEX;
- Up to 63 selected fill soil samples will be analysed for asbestos (500ml);
- Up to 30 selected fill soil samples will be analysed for: OCPs; OPPs; and PCBs;
- Up to five selected soil samples will be analysed for: pH; CEC; and clay content (%);
- Up to 10 selected fibre cement fragments, if found on or in soil, will be analysed for asbestos;
- A nominal allowance for TCLP leachability analysis for PAHs and selected metals has been included to provide a preliminary waste classification for the off-site disposal of soil in accordance with NSW EPA *Waste Classification Guidelines - Part 1: Classifying Waste* (2014); and
- Collection and analysis of QA/QC samples (including intra- and inter-laboratory duplicates, trip blank, trip spike and field rinsate samples).

The soil analysis will generally target the fill soils and the first contact of natural soils. Deeper samples may be analysed based on the results of the shallow soils and site observations. A staged approach to soil sample analysis is proposed to allow for targeting areas based on the results of the initial analysis round.

4.4 Reporting Requirements

A DSI report is to be prepared presenting the results of the investigation, in accordance with the NSW EPA Consultants Reporting on Contaminated Land, Contaminated Land Guidelines (2020)[14].

[14] NSW EPA, (2020). *Consultants Reporting on Contaminated Land, Contaminated Land Guidelines*

5 LIMITATIONS

The report limitations are outlined below:

- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or land use. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors

This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions

Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data

Site investigations identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an investigation indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Investigation Limitations

Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals
Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Investigation Report
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the investigation. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the investigation. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete investigation should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely
Because an environmental site investigation is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site investigation, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.

Appendix A: Report Figures

APPENDIX I

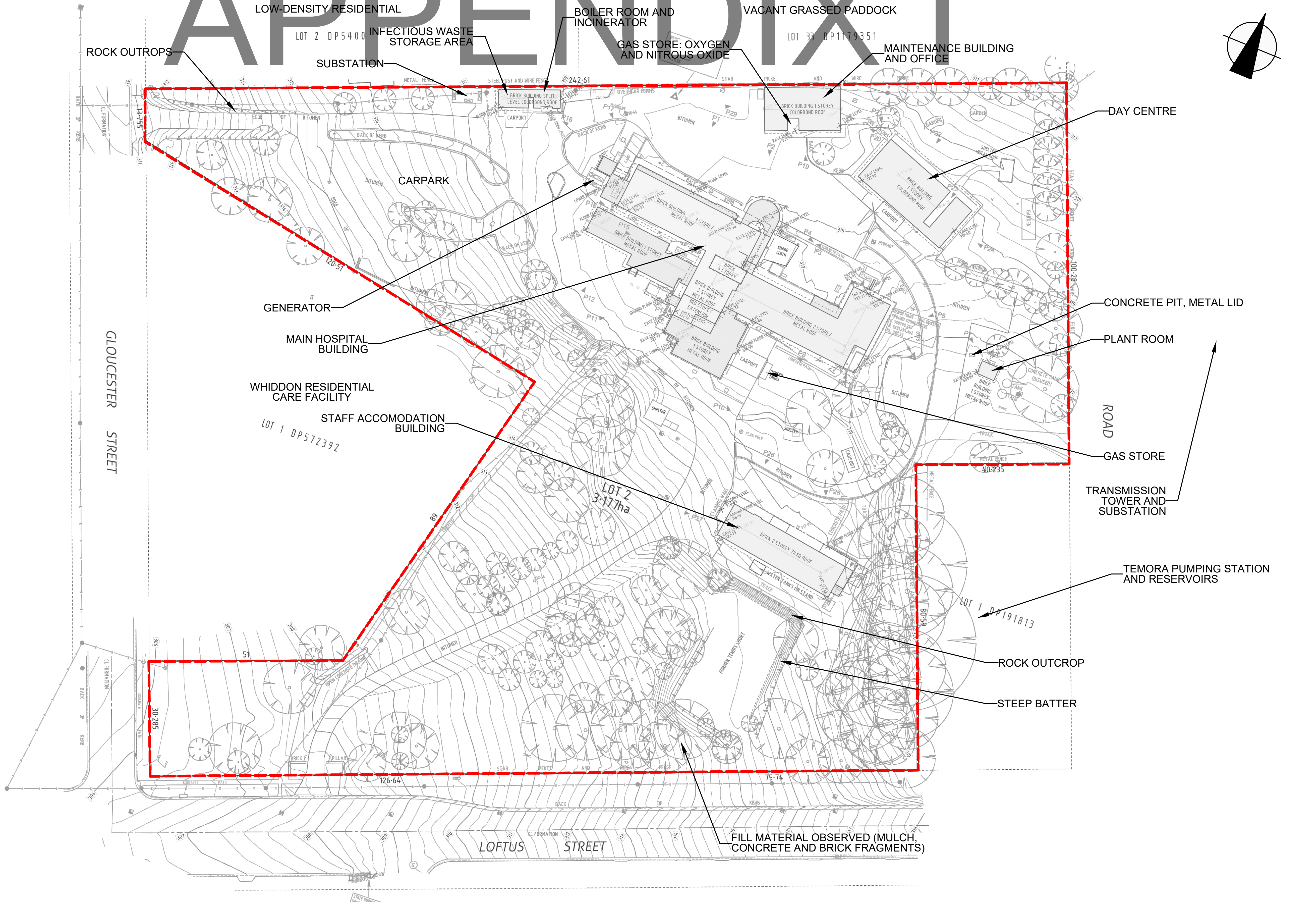
AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

This plan should be read in conjunction with the Environmental report.

Title:	**SITE LOCATION PLAN**
Location:	169-189 LOFTUS STREET, TEMORA, NSW
Project No: E35822PR	Figure No: 1
JKEnvironments	

PLOT DATE: 9/05/2023 2:57:21 PM DWG FILE: K:\5C EIS JOBS\35000's\E35822PR TEMORA\CAD\E35822PR.DWG

APPENDIX I



LEGEND

APPROXIMATE SITE BOUNDARY

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

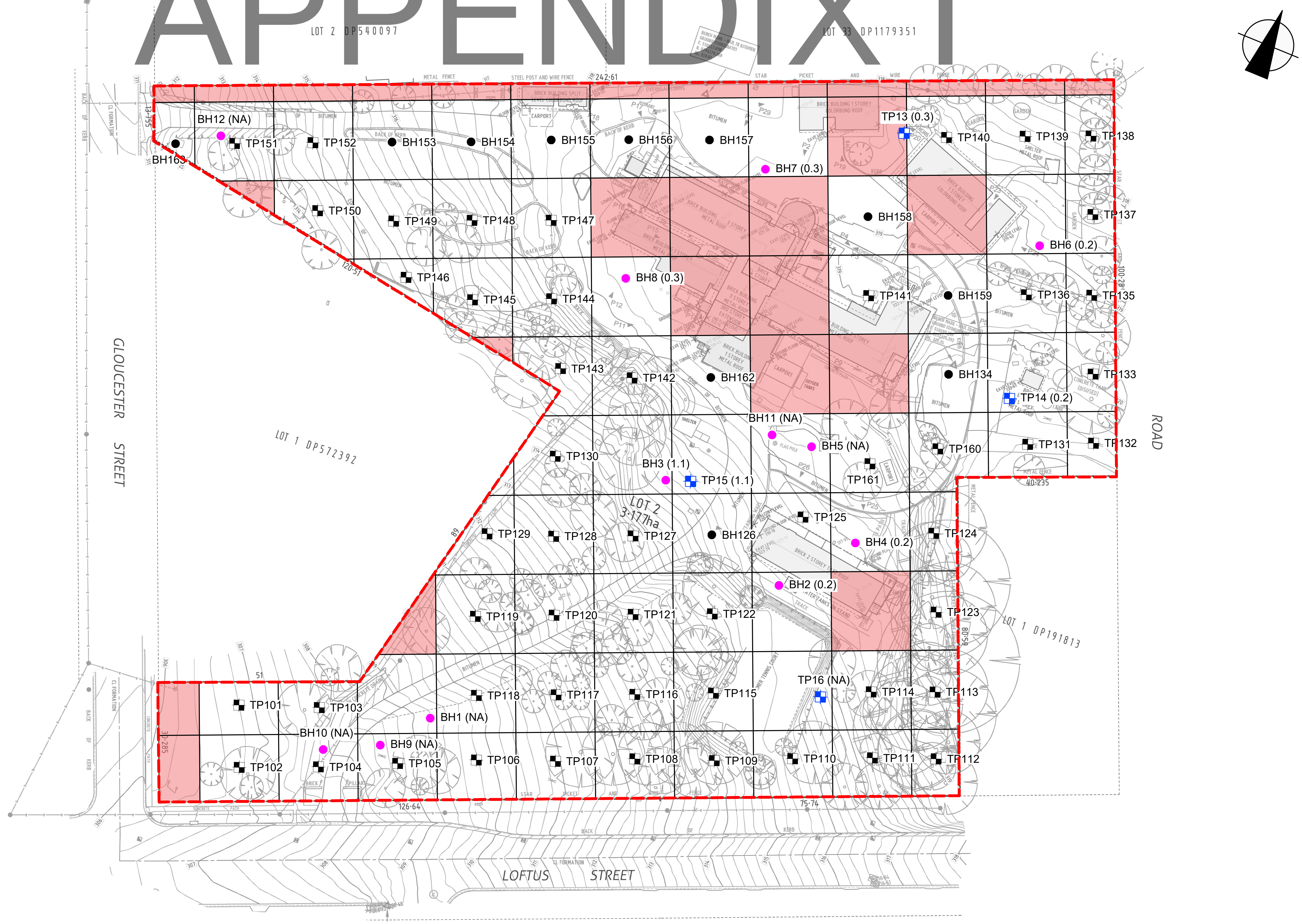
This plan should be read in conjunction with the Environmental report.

Title:	**SITE FEATURES PLAN**
Location:	169-189 LOFTUS STREET, TEMORA, NSW
Project No:	E35822PR
Figure No:	2

JKEnvironments

PLOT DATE: 8/06/2023 12:18:08 PM DWG FILE: K:\5C EIS JOBS\35000's\E35822PR TEMORA\CAD\E35822PR.DWG

APPENDIX I



LEGEND

(red dashed line)	APPROXIMATE SITE BOUNDARY
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (PSI, 2023)
TP(Fill Depth)	TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m) (PSI, 2023)
BH154	PROPOSED DSI BOREHOLE LOCATION AND NUMBER
TP101	PROPOSED DSI TEST PIT LOCATION AND NUMBER
(pink area)	INACCESSIBLE AREA

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **PROPOSED DSI SAMPLING LOCATIONS**

Location: 169-189 LOFTUS STREET, TEMORA, NSW

Project No: E35822PR

Figure No: 3

JKEnvironments

PLOT DATE: 15/08/2023 2:02:07 PM DWG FILE: K:\5C EIS JOBS\35000'S\E35822PR TEMORA\CAD\E35822PR.DWG

Appendix B: Report Explanatory Notes

Standard Sampling Procedure (SSP)

These protocols specify the basic procedures to be used when sampling soils or groundwater for environmental site assessments undertaken by JKE.

The purpose of these protocols is to provide standard methods for: sampling, decontamination procedures for sampling equipment, sample preservation, sample storage and sample handling. Deviations from these procedures must be recorded.

A. Soil Sampling

- Prepare a borehole/test pit log or make a note of the sample description for stockpiles.
- Layout sampling equipment on clean plastic sheeting to prevent direct contact with ground surface. The work area should be at a distance from the drill rig/excavator such that the machine can operate in a safe manner.
- Ensure all sampling equipment has been decontaminated prior to use.
- Remove any surface debris from the immediate area of the sampling location.
- Collect samples and place in glass jar with a Teflon seal. This should be undertaken as quickly as possible to prevent the loss of any volatiles. If possible, fill the glass jars completely.
- Collect samples for asbestos analysis and place in a zip-lock plastic bag.
- Label the sampling containers with the JKE job number, sample location (eg. BH1), sampling depth interval and date. If more than one sample container is used, this should also be indicated (eg. 2 = Sample jar 1 of 2 jars).
- Photo-ionisation detector (PID) screening of volatile organic compounds (VOCs) should be undertaken on samples using the soil sample headspace method. Headspace measurements are taken following equilibration of the headspace gasses in partly filled zip-lock plastic bags. PID headspace data is recorded on the borehole/test pit log and the chain of custody forms.
- Record the lithology of the sample and sample depth on the borehole/test pit log generally in accordance with AS1726-1993[15].
- Store the sample in a sample container cooled with ice or chill packs. On completion of the sampling the sample container should be delivered to the lab immediately or stored in the refrigerator prior to delivery to the lab. All samples are preserved in accordance with the standards outlined in the report.
- Check for the presence of groundwater after completion of each borehole using an electronic dip meter or water whistle. Boreholes should be left open until the end of fieldwork. All groundwater levels in the boreholes should be rechecked on the completion of the fieldwork.
- Backfill the boreholes/test pits with the excavation cuttings or clean sand prior to leaving the site.

B. Decontamination Procedures for Soil Sampling Equipment

- All sampling equipment should be decontaminated between every sampling location. This excludes single use PVC tubing used for push tubes etc. Equipment and materials required for the decontamination include:
  - Phosphate free detergent (Decon 90);
  - Potable water;
  - Stiff brushes; and
  - Plastic sheets.
    - Ensure the decontamination materials are clean prior to proceeding with the decontamination.
    - Fill both buckets with clean potable water and add phosphate free detergent to one bucket.

[15] Standards Australia, (1993), *Geotechnical Site Investigations.* (AS1726-1993)

- In the bucket containing the detergent, scrub the sampling equipment until all the material attached to the equipment has been removed.
- Rinse sampling equipment in the bucket containing potable water.
- Place cleaned equipment on clean plastic sheets.

If all materials are not removed by this procedure, high-pressure water cleaning is recommended. If any equipment is not completely decontaminated by both these processes, then the equipment should not be used until it has been thoroughly cleaned.

QA/QC Definitions

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[16] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[17]. The NEPM (2013) is consistent with these documents.

A. Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

B. Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

C. Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

D. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

E. Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;
- All blank data reported;

[16] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)
[17] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide*

- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

F. Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

G. Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

H. Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{(\text{Spike Sample Result} - \text{Sample Result}) \times 100}{\text{Concentration of Spike Added}}$$

I. Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

J. Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

Appendix C: Guidelines and Reference Documents

Canadian Council of Ministers of the Environment, (1999). Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)

CRC Care, (2011). Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document

Contaminated Land Management Act 1997 (NSW)

Health Infrastructure, (2021). Design Guidance Note No. 030. Site Investigations: Project Opportunities and Constraints

NSW EPA, (2014). Waste Classification Guidelines - Part 1: Classifying Waste

NSW EPA, (2015). Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997

NSW EPA, (2017). Guidelines for the NSW Site Auditor Scheme, 3rd Edition

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

NSW EPA, (2022). *Sampling design part 1 - application*, Contaminated Land Guidelines

National Environment Protection Council (NEPC), (2013). National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)

Olszowy, H., Torr, P., and Imray, P., (1995). Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

Protection of the Environment Operations Act 1997 (NSW)

State Environmental Planning Policy (Resilience and Hazards) 2021 (NSW)

Western Australia Department of Health, (2021). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia