REPORT TO

TTW (NSW) PTY LTD

ON

DRAFT REMEDIATION ACTION PLAN

FOR

NEXTDC S5 DATA CENTRE

AT

269 LANE COVE ROAD, MACQUARIE PARK, NSW

Date: 8 October 2025
Ref: E36466PRrpt5Rev2-RAP

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Executive Summary

TTW (NSW) Pty Ltd ('the client') commissioned JK Environments (JKE) to prepare a Remediation Action Plan (RAP) for the proposed NEXTDC S5 data centre at 269 Lane Cove Road, Macquarie Park, NSW ('the site'). The site location is shown on Figure 1 attached in Appendix A, and the RAP applies to the land within the site boundaries as shown on Figure 2 attached in Appendix A. This RAP has been revised to account for the updated development description, presented in Section 1.1 of this RAP.

The RAP has been prepared to support a State Significant Development Application (SSDA) for the proposed data centre development, with regards to Chapter 4 (clause 4.6) of State Environmental Planning Policy (Resilience and Hazards) 2021.

JKE has previously undertaken a Preliminary (Stage 1) Site Investigation (PSI) and an Additional Contamination Investigation for the site between 2024 and 2025. The previous investigations identified asbestos as asbestos fines/fibrous asbestos (AF/FA), and bonded/non-friable cement fragments (FCF)/asbestos containing material (ACM) in fill soils which trigger the need for remediation. Disused Underground Storage Tanks (USTs) also remain at the site. A more detailed summary of the relevant information is presented in Section 2 of this RAP.

Based on the above, additional investigation of soil was recommended to confirm the results and validate the assumptions made for the Tier 1 risk assessment. This RAP includes a detailed procedure for completing a Data Gap Investigation (DGI) when access becomes available, and undertaking any necessary reporting that is triggered as part of that process. This must occur following demolition and prior to the construction of the development as there is a potential that additional remediation may be necessary depending on the DGI results.

The goal of the remediation is to render the site suitable for the proposed development from a contamination viewpoint. The primary aim of the remediation at the site is to reduce the human health risks posed by the site contamination to an acceptable level. The objectives of the RAP are to:

- Summarise previous investigations and historical contamination data;
- Identify any data gaps to be addressed prior to the commencement of remediation;
- Outline a framework for the DGI process;
- Document a methodology to remediate and validate the site;
- Document a strategy that can be implemented in the event of uncovering any unexpected, contamination-related finds, and provide other relevant contingency plans; and
- Outline on-site management procedures to be implemented during remediation.

The RAP outlines the requirements for remediation of the UST areas by removing the tanks and any associated infrastructure, and excavation of any localised contaminated soil. The proposed soil remediation strategies for the impacted fill across the site involves excavation and off-site disposal of contaminated fill, and off-site disposal of surficial ACM. Capping of contaminated fill is proposed where excavation and off-site disposal of contaminated fill is not feasible to be undertaken, such as within Tree Protection Zones (TPZs). The extent of remediation is to be confirmed in the finalised RAP, following the DGI.

The remediation methods outlined in the RAP are appropriate for the contaminants encountered and are technically achievable to implement concurrently with the proposed development works. On this basis, JKE is of the opinion that the site can be made suitable for the proposed development via remediation, provided this RAP (once finalised) and any associated documentation (e.g. Asbestos Management Plan [AMP], Remedial Works Plan [RWP] etc) are implemented.

A site validation report is to be prepared on completion of remediation activities and submitted to the consent authority to demonstrate that the site (or a particular development stage) is suitable for the proposed development. A long-term Environmental Management Plan (EMP) will also be required as part of the validation documentation process to outline the long-term management approach and requirements, in the event that contaminated material remains on-site.

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

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Abbreviations

Australian Business Number	**ABN**
Added Contaminant Limit	**ACL**
Asbestos Containing Material	**ACM**
Australian Company Number	**ACN**
Area of Environmental Concern	**AEC**
Asbestos Fines/Fibrous Asbestos	**AF/FA**
Australian Height Datum	**AHD**
Asbestos Management Plan	**AMP**
Asbestos Removal Control Plan	**ARCP**
Australian Standard	**AS**
Acid Sulfate Soil	**ASS**
Below Ground Level	**BGL**
Borehole	**BH**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
BTEX plus naphthalene	**BTEXN**
Construction Environmental Management Plan	**CEMP**
Contaminated Land Management	**CLM**
Contaminant(s) of Potential Concern	**CoPC**
Chain of Custody	**COC**
Conceptual Site Model	**CSM**
Data Quality Indicator	**DQI**
Data Quality Objective	**DQO**
Ecological Investigation Level	**EIL**
Environmental Management Plan	**EMP**
Excavated Natural material	**ENM**
Environment Protection Authority	**EPA**
Environment Protection Licence	**EPL**
Ecological Screening Level	**ESL**
Fibre Cement Fragment	**FCF**
Full-Time Equivalent	**FTE**
Gross Floor Area	**GFA**
Health Investigation Level	**HIL**
Health Screening Level	**HSL**
JK Environments	**JKE**
Licensed Asbestos Assessor	**LAA**
Laboratory Control Samples	**LCS**
Light Non-Aqueous Phase Liquid	**LNAPL**
Map Grid of Australia	**MGA**
National Association of Testing Authorities	**NATA**
National Environmental Protection Measure	**NEPM**
National Occupational Health and Safety Commission	**NOHSC**
Organochlorine Pesticides	**OCP**
Organophosphate Pesticides	**OPP**
Polycyclic Aromatic Hydrocarbons	**PAH**
Polychlorinated Biphenyls	**PCB**
Photo-ionisation Detector	**PID**
Protection of the Environment Operations	**POEO**
Personal Protective Equipment	**PPE**
Practical Quantitation Limit	**PQL**
Preliminary Site Investigation	**PSI**
Quality Assurance	**QA**
Quality Control	**QC**
Remediation Action Plan	**RAP**
Reduced Level	**RL**

Remediation Work Plan	**RWP**
Site Assessment Criteria	**SAC**
Sampling, Analysis and Quality Plan	**SAQP**
State Environmental Planning Policy	**SEPP**
Source, Pathway, Receptor	**SPR**
Structural Root Zone	**SRZ**
State Significant Development Application	**SSDA**
Standing Water Level	**SWL**
Tree Protection Zone	**TPZ**
Total Recoverable Hydrocarbons	**TRH**
Trip Spike	**TS**
Upper Confidence Limit	**UCL**
Unexpected Finds Protocol	**UFP**
Urban Residential and Public Open Space	**URPOS**
United States Environmental Protection Agency	**USEPA**
Validation Assessment Criteria	**VAC**
Virgin Excavated Natural Material	**VENM**
Volatile Organic Compounds	**VOC**
Work Health and Safety	**WHS**

Units

Kilolitres	**KL**
Kilometres	**km**
Kilovolts	**kV**
Megawatt Electric	**MWe**
Metres BGL	**mBGL**
Metres	**m**
Micrograms per Litre	**µg/L**
Millilitres	**ml or mL**
Milligrams per Kilogram	**mg/kg**
Milligrams per Litre	**mg/L**
Millivolts	**mV**
Parts Per Million	**ppm**
Percentage	**%**

1 INTRODUCTION

TTW (NSW) Pty Ltd ('the client') commissioned JK Environments (JKE) to prepare a Remediation Action Plan (RAP) for the proposed NEXTDC S5 data centre at 269 Lane Cove Road, Macquarie Park, NSW ('the site'). The site location is shown on Figure 1 attached in Appendix A and the RAP applies to the land within the site boundaries as shown on Figure 2 attached in Appendix A. This RAP has been revised due to account for the updated project description and development details.

The RAP has been prepared to support a State Significant Development Application (SSDA) for the proposed data centre development, with regards to Chapter 4 (clause 4.6) of State Environmental Planning Policy (Resilience and Hazards) 2021[1].

JKE has previously undertaken a Preliminary (Stage 1) Site Investigation (PSI)[2] and an Additional Contamination Investigation[3] for the site between 2024 and 2025. A summary of the relevant information is presented in Section 2 of this RAP.

The previous investigations identified asbestos as asbestos fines/fibrous asbestos (AF/FA), and bonded/non-friable cement fragments (FCF)/asbestos containing material (ACM) in fill soils which trigger the need for remediation. This RAP includes a methodology to remediate and validate the site so that it is suitable for the proposed development (from a contamination viewpoint). A contingency plan for remediation is included together with site management procedures and an unexpected finds protocol (UFP) to be implemented during remediation.

1.1 Project Description

The proposed development includes:

- Site preparation works include demolition and removal of existing structures, tree removal and bulk earthworks;
- Staged construction and operation of two connected data centre buildings (Building A and Building B) with a maximum height of 65 metres and a combined total gross floor area (GFA) of 47,285m^2 comprising 33,142m^2 of technical data hall floor space and 14,143m^2 of office, retail and innovation hub floor space;
    - Building A will be delivered in Stage 1 and will comprise the following:
        - Basement parking for 51 car spaces including two accessible spaces and 10 EV spaces;
        - Seven storeys of technical data floor space accommodating seven data houses (16,571m^2);
        - Utilities including diesel generators (3MWe), above-ground water tanks for industrial water (600kL each), above-ground diesel storage tanks (100kL each) and an aboveground water tank for fire water (400kL each);

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

[2] JKE, (2024). *Report to TTW (NSW) Pty Ltd on Preliminary Site Investigation (PSI) for Proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW*. (Ref: E36466PRrptRev2) (Referred to as PSI).

[3] JKE, (2025). *Report to TTW (NSW) Pty Ltd on Additional Contamination Investigation Proposed NEXTDC S5 Data Centre at 269 Lane Cove Road, Macquarie Park, NSW*. (Ref: E36466PRrpt4Rev1) (Referred to as Additional Contamination Investigation)

        - Business identification signage facing Waterloo Road and Land Cove Road; and
        - Integrated 'Building O' component within Building A, comprising:
            - Two retail tenancies at ground level (326m^2);
            - Lobby and innovation hub including auditorium and training rooms (3,186m^2); and
            - NEXTDC and ancillary office floor space on upper levels (10,631m^2).
    - Building B will be delivered in Stage 2 and will comprise the following:
        - Seven storeys of technical data floor space accommodating seven data halls (16,571m^2);
        - Utilities including diesel generators (3MWe), above-ground water tanks for industrial water (600kL each), above-ground diesel storage tanks (100kL each) and an aboveground water tank for fire water (400kL each); and
        - Business identification signage on the western and southern building facades.
- Landscaping across the site in accordance with the project staging, delivering a mix of native and endemic plant species, shrubs and grasses, including 139 additional trees within a total area of 4,959m^2 deep soil and a resultant tree canopy cover of 5,707m^2;
- Staged delivery of public domain works including:
    - Stage 1: construction of Road 13 within the subject site and urban plaza; and
    - Stage 2: construction of Road 6 (half-width) within the subject site, including provision for a future pedestrian/cycle overbridge (to be delivered by others), and works along Lane Cove Road.
- Delivery of 90 megawatts of power with a 33kV switching station to be accommodated on site, as well as other site services, including stormwater infrastructure.

Based on the provided information, excavation to depths of approximately 10-12m below ground level (BGL) is required to accommodate the development.

Selected preliminary development plans provided to JKE are attached in Appendix B.

1.2 Remediation Goal, Aims and Objectives

The goal of the remediation is to render the site suitable for the proposed development from a contamination viewpoint. The primary aim of the remediation at the site is to reduce the human health risks posed by the site contamination to an acceptable level.

The objectives of the RAP are to:

- Summarise previous investigations and historical contamination data;
- Identify any data gaps to be addressed prior to the commencement of remediation;
- Outline a framework for the data gap investigation (DGI) process;
- Document a methodology to remediate and validate the site;
- Document a strategy that can be implemented in the event of uncovering any unexpected, contamination-related finds, and provide other relevant contingency plans; and
- Outline on-site management procedures to be implemented during remediation.

1.3 Scope of Work

The RAP was prepared generally in accordance with a JKE proposal (Ref: EP61043Prev1) of 21 August 2024 and written acceptance from the client in the form of a Purchase Order of 10 September 2024. The scope of work included a review of project information, review of the available proposed development details, and preparation of a RAP.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[4], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[5] and SEPP Resilience and Hazards 2021. A list of reference documents/guidelines is included in Appendix G.

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

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

2 SITE INFORMATION

2.1 Summary of Site History Information

Site history information presented in the previous investigations identified that the site was historically used for agricultural purposes (orchards/market gardens and possibly grazing) and vacant land until the 1960s. During the 1960s and 1970s, the site was predominantly vacant, with the eastern portion used for a drive-in cinema. Construction and demolition activities occurred during this time. Warehouses were constructed on the site during the 1980s and continued to be used for various commercial uses since. Fuel storage activities, including installation/use of underground storage tanks (USTs), also historically occurred at the site.

2.2 Previous Investigations

The PSI and Additional Contamination Investigation were undertaken by JKE between 2024 and 2025. Relevant information is summarised in the following table:

Table 2-1: Summary of Previous Investigations

Investigation Phase	Summary of Findings
PSI	• The PSI included a review of site information, a walkover site inspection, preparation of a Conceptual Site Model (CSM) outlining the potential contamination sources/areas of environmental concern (AEC), soil sampling from 34 boreholes (BH1 to BH34 inclusive) and groundwater sampling from four groundwater monitoring wells installed at the site (MW8, MW18, MW26 and MW29). The sample locations are shown on Figure 3 attached in Appendix A; • The following potential contamination sources/AEC were identified: o Historical filling activities at the site; o Historical and current fuel storage at the site, including USTs; o Historical agricultural (market garden/orchard and possibly grazing) use; o Use of pesticides beneath the buildings and/or around the site; o Hazardous building materials within current and former buildings and structures at the site; o Potential use of fire-fighting foams containing per-and polyfluoroalkyl substances (PFAS); and o Historical commercial printing/publishing activities at the site. • Selected soil samples and groundwater were analysed for contaminants of potential concern (CoPC) identified in the CSM. In summary: o Asbestos, as AF/FA was reported in the fill soils at concentrations above the human health site assessment criteria (SAC) in two locations (BH1 and BH2); o Asbestos, in the form of FCF/ACM was identified at the surface (and therefore above the human health SAC in an area of exposed soil between the central carparks (FCF-1). FCF/ACM was also reported in the fill soils at concentrations below the human health SAC in two locations (BH8 and BH9); o Cadmium, copper, lead, nickel and zinc concentrations were reported in groundwater above the ecological SAC; o The nickel concentration in one groundwater sample (MW26) was reported above the recreational SAC; o The pH of the groundwater was outside (i.e. below the lower threshold) of the acceptable ranges of the ecological and recreational SAC; and o The SAC exceedances are shown on Figure 4 attached in Appendix A. • The PSI concluded that the site could be made suitable for the proposed development, via remediation. The following was recommended:

Investigation Phase	Summary of Findings
	○ A surface walkover and 'emu-picking' of all visible FCF/ACM at the site surface should be undertaken and an asbestos clearance certificate obtained from a licensed asbestos assessor (LAA); ○ Interim management of the site is to occur under an Asbestos Management Plan (AMP) until remediation occurs. The AMP is to be prepared by an LAA; ○ A Detailed Site Investigation (DSI) is required to better assess the risks associated with the AEC/potential sources of contamination, and to inform preparation of the RAP; and ○ Develop and implement a RAP based on the findings of the PSI and DSI. The soil and groundwater data summary tables from the PSI are included in Appendix C. The borehole logs are included in Appendix D.
Additional Contamination Investigation	• The Additional Contamination Investigation included a review of project information (including supplementary reports provided to JKE), soil sampling from 23 additional boreholes (BH201 to BH223 inclusive), preliminary hazardous ground gases (HGG) screening, soil sampling from seven temporary sub-slab sampling points (SV1 to SV7 inclusive) and groundwater sampling from five monitoring wells installed at the site (MW18, MW26, MW29, MW121 and MW122). The sample locations are shown on Figure 3 in Appendix A; • The supplementary reports indicated that the UST in the north of the site had previously been abandoned in-situ; • A selection of soil, soil vapour and groundwater samples were analysed for the CoPC identified in the CSM. In summary: ○ Asbestos, in the form of AF/FA was reported in fill soils at concentrations above the human health SAC in two locations (BH102 and BH103). The detections were reported in the sub-surface fill soils and were considered likely to be associated with degraded FCF/ACM; ○ Copper, nickel and zinc concentrations were reported in the groundwater above the ecological SAC; ○ The pH of the groundwater was outside (i.e. below the lower threshold) of the acceptable ranges of the ecological and recreational SAC; and ○ SAC exceedances are shown on Figure 4 in Appendix A; • The soil vapour investigation did not identify any triggers for remediation; • The preliminary HGG screening did not identify potential risks related to HGG within the deep fill mound; • JKE was of the opinion that further investigations of soil vapour and the potential for HGG to be generated at the site were not warranted at the time of reporting; and • The additional contamination investigation concluded that the site could be made suitable for the proposed development, via remediation. The following was recommended: ○ Prepare and implement an interim AMP to manage risks from asbestos in soil until the proposed development occurs. This was also a recommendation of the PSI; ○ Preparation of a RAP to address the contamination issues identified and to provide a framework to address the data gaps; and ○ Manage, remediate and validate the site in accordance with the RAP and AMP. The soil and groundwater data summary tables from the Additional Contamination Investigation are included in Appendix C. The borehole logs are included in Appendix D.

2.3 Site Identification and Site Information

Table 2-2: Site Identification

Current Site Owner:	NEXTDC Limited
Site Address:	269 Lane Cove Road, Macquarie Park, NSW (also known as 34 Waterloo Road, Macquarie Park)
Lot & Deposited Plan:	Lot 3 in DP1129811
Current Land Use:	Commercial (warehouse/distribution)
Proposed Land Use:	High Tech Industrial (data centre)
Local Government Authority:	City of Ryde
Current Zoning:	E2 – Commercial Centre
Site Area (m^2) (approx.):	22,381
RL (AHD in m) (approx.):	57-66
Geographical Location (decimal degrees) (approx.):	Latitude: -33.785458 Longitude: 151.128366
Report Figures:	Appendix A

2.4 Summary of Site Setting and Description

The site is located in a predominantly commercial area of Macquarie Park and is bound by Waterloo Road to the north-east and Lane Cove Road to the north-west. The site is located approximately 1km to the south-west of the Lane Cove River. The site is located in an area of undulating topography falling towards the north/north-east at approximately 2-3°. Parts of the site appear to have been levelled to account for the slope and accommodate the existing development.

Walkover inspections of the site were undertaken by JKE during the course of the fieldworks for the PSI between 27 November 2023 and 5 January 2024. The site has remained generally unchanged since the PSI. An internal inspection of the southern building was undertaken on 25 September 2024 for the additional investigation. A summary of the key observations is provided below:

- The majority of the site was occupied by two large warehouse-type buildings with associated office space. The majority of the remaining area was sealed with asphaltic concrete (AC) and/or concrete pavement which appeared to be in fair to good condition (based on a cursory inspection), with some evidence of heaving and cracking observed. No obvious staining on pavements and surfaces were observed;
- The buildings were of brick and metal construction (northern building) and pebblecrete construction with fibre cement in-fill panels (southern building). Warning labels on the in-fill panels indicated the fibre cement contained asbestos. The buildings appeared to be generally in good condition based on a cursory inspection;

- The internal inspection of the southern building identified a concrete loading dock and water treatment equipment located in the south and south-eastern portion of the building. The remainder of the building was occupied with rooms/office space. The internal walls and flooring appeared to be in relatively good condition based on a cursory inspection;
- A 1-2 storey carpark was located in the central portion of the site, between the two large buildings. A former tennis court was located to the west of carpark;
- A large grass-covered fill mound occupied the north-western portion of the site;
- No obvious indications of erosion were observed at the site boundaries;
- Exposed fill soils were observed in the formed gardens across the site and along the south-western and north-western boundaries;
- Parts of the site appear to have been levelled to accommodate the existing development;
- An UST was identified in the north-east of the site, and a former holding tank was observed in the south of the site. Additional USTs were suspected within the south of the site (see Figure 2 in Appendix A);
- Surface water run-off was expected to generally flow in a northerly direction in sympathy with the local topography and collect within on-site stormwater drainage infrastructure. Infiltration of rainwater was expected to occur within the landscaped and unpaved areas of the site;
- Sensitive environments, such as wetland, ponds, creeks or extensive areas of native vegetation were not identified on-site or in the immediate surrounds; and
- The vegetation within the site appeared to be generally healthy (based on a cursory inspection) with no obvious indications of plant stress or die-back.

2.5 Surrounding Land Use

During the site inspections, JKE observed the following land uses in the immediate surrounds:

- North-east: Macquarie Park Metro Station and Waterloo Road, with offices and commercial units beyond;
- North-west: Lane Cove Road, with a veterinary clinic, car display room and offices (Hyundai), and a construction site (presumably offices and/or residential apartments);
- South–east: Commercial offices, including Foxtel and Sky News; and
- South-west: A large warehouse (Chamberlain), with commercial offices, a hotel (Quest) and Epping Road beyond.

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

2.6 Summary of Geology and Hydrogeology

2.6.1 Regional Geology

Regional geological information reviewed for the PSI indicated that the site is underlain by Ashfield Shale of the Wianamatta Group, which typically consists of black to dark grey shale and laminite. The site is located near the geological boundary with Hawkesbury Sandstone, which typically consists of medium to coarse grained quartz sandstone with minor shale and laminite lenses.

2.6.2 Acid Sulfate Soil Risk and Planning

Acid sulfate soil (ASS) information reviewed for the PSI indicated that the site is not located within an ASS risk area.

2.6.3 Hydrogeology and Groundwater

Hydrogeological information reviewed for the PSI indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive aquifers of low to moderate productivity. There were numerous registered bores within 2,000m. In summary:

- There were two bores on-site (EMW1 and EMW2, as shown on Figure 2). The bores were registered for monitoring purposes and were located in the north of the site;
- The majority of the bores in the surrounds were registered for monitoring purposes;
- There were no nearby bores (i.e. within 1km) registered for domestic or irrigation uses; and
- The drillers log information from the closest registered bores typically identified fill and/or clay soil to depths ranging from approximately 2.1m to 5.2mBGL, underlain by shale. Sandstone bedrock was encountered beneath the shale at depths of approximately 8.4m to 15mBGL; and
- The standing water level (SWL) was reported for one bore located approximately 170m to the north of the site. The SWL was reported to be at a depth of approximately 18mBGL. JKE note that the construction details recorded on the licence indicate the well was screened within the sandstone bedrock aquifer and are likely to be representative of a deeper aquifer. SWLs were not reported for the other nearby bores.

The information reviewed for the PSI, and the intrusive investigations undertaken by JKE identified that the subsurface conditions typically 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.

Table 2-3: Summary of Additional Contamination Investigation Field Screening information

<table>
<tr><th>Aspect</th><th>Details</th></tr>
<tr><td>Groundwater Depth & Flow</td><td>SWLs measured in the monitoring wells installed at the site ranged from approximately 2.6m to 12.83mBGL. Groundwater reduced levels (RL) calculated on these measurements ranged from approximately RL50m to 63.2mAHD. MW8 was dry during the course of the investigations.

<table>
<tr><th>MW reference</th><th>Reduced Level (mAHD) (Approx.)</th><th>SWL (mBGL)</th><th>SWL (mAHD) (Approx.)</th></tr>
<tr><td>MW18</td><td>67.6</td><td>4.47</td><td>63.1</td></tr>
<tr><td>MW26</td><td>65.4</td><td>9.85</td><td>55.6</td></tr>
<tr><td>MW29</td><td>62.9</td><td>12.83</td><td>50.1</td></tr>
<tr><td>MW121</td><td>65.7</td><td>3.89</td><td>61.8</td></tr>
<tr><td>MW122</td><td>65.8</td><td>2.6</td><td>63.2</td></tr>
</table>

A contour plot was prepared for the Additional Contamination Investigation based on the recorded groundwater levels as shown on Figure 5 (refer to Appendix A). Groundwater flow generally occurs in a down-gradient direction perpendicular to the groundwater elevation contours. The contour plot indicates that groundwater flow direction generally trends in a north/north-westerly direction.</td></tr>
<tr><td>Groundwater Field Parameters</td><td>Field measurements recorded during sampling were as follows:
- pH ranged from 4.59 to 5.48;
- EC ranged from 659µS/cm to 3,021µS/cm;
- Eh ranged from 75.9mV to 179.4mV; and
- DO ranged from 0.3ppm to 1.5ppm.

Due to very low water volume within MW29, no field measurements were recorded.

The PID readings in the monitoring well headspace recorded during sampling ranged from 0ppm in MW18 to 6.2ppm in MW122.</td></tr>
<tr><td>Light non-aqueous phase liquids (LNAPLs) - petroleum hydrocarbons</td><td>Phase separated product (i.e. LNAPL) was not detected using the interphase probe during groundwater sampling.</td></tr>
</table>

3 REVIEW 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 and investigation data to date. Reference should also be made to the figures attached in Appendix A.

3.1 Summary of Contamination (Site Characterisation)

3.1.1 Fill

SAC exceedances in the fill profiles, and the associated assessment of risk are summarised as follows based on the findings of the previous investigations:

Table 3-1: Fill Characterisation and Risk Assessment

Contaminants	Assessment of Risk
AF/FA concentrations were reported in fill material above the human health SAC. The highest AF/FA concentration was reported in BH103 (see Figure 4 in Appendix A). ACM was identified at the site surface in exposed soils between the central carparks (see Figure 4 in Appendix A). The presence of ACM at the surface is an exceedance of the human health SAC. ACM was also encountered in fill at other locations, although at concentrations that were below the SAC.	Source(s): Historical demolition, and possibly imported filling. Extent: Considered to be widespread in fill. Sporadic at the ground surface in unpaved areas. The current data indicates that it is likely limited to the northern and central portions of the site, as shown on Figure 4 attached in Appendix A). The AF/FA concentrations were associated with matted material, considered to be degraded FCF/ACM. The fill impacted by asbestos (in the form of AF/FA and ACM) was typically encountered in sub-surface soils (at depth) with good grass coverage at the surface, or beneath pavement. Considering the surface conditions, complete exposure/source-pathway-receptor (SPR) linkage for current receptors are considered to be unlikely. It is noted that FCF/ACM was encountered in exposed soils at the surface during the PSI. A complete SPR linkage may exist for current receptors, if the soil/asbestos is disturbed. However, it is noted that asbestos fibres bound within a fibre cement matrix are unlikely to mobilise readily to air during typical site use. Therefore, it is unlikely that exposure to unacceptable concentrations of airborne respirable asbestos fibres would occur under the typical site use conditions. Complete SPR linkages may also be realised during the future development of the site when soil disturbance occurs. Remediation and management of asbestos risks is required.

Remediation will be required to address contamination risks in fill soils.

3.1.2 Groundwater

SAC exceedances in the groundwater, and the associated assessment of risk, are summarised as follows based on the findings of the previous investigations:

Table 3-2: Groundwater Characterisation and Risk Assessment

Contaminants	Assessment of Risk
Ecological SAC exceedances were reported for copper, nickel and zinc in the groundwater samples collected for the Additional Contamination Investigation. Ecological SAC exceedances were reported for cadmium, copper, lead, nickel and zinc in the groundwater samples collected for the PSI. The nickel concentration in one groundwater sample also exceeded the recreational SAC. SAC exceedances are shown on Figure 4 in Appendix A.	The heavy metals concentrations were generally considered to be consistent with regional conditions. It is noted that the concentrations were considerably higher during the PSI in comparison to the Additional Contamination Investigation results. It is considered possible that the concentrations reported in the PSI were (at least in part) associated with the core drilling process used for the installation of the wells, leaking water infrastructure more broadly in urban environments, and/or the initial disturbance associated with the well installation process. Regardless, the heavy metal concentrations reported during the JKE investigations were considered to be generally representative of groundwater conditions within urban environments and were assessed to not pose an unacceptable risk to receptors in the current and/or future site configuration.
Ecological and recreational SAC exceedances were reported for pH in the groundwater samples collected for the PSI and the additional contamination investigation. SAC exceedances are shown on Figure 4 in Appendix A.	The pH values reported were generally considered to be consistent with regional conditions and were assessed to not pose an unacceptable risk to receptors in the current and/or future site configuration.

Based on the current dataset, we have not identified a trigger for remediation of groundwater, however, suitable management of groundwater seepage/in-flow is required during the construction phase.

3.1.3 Data Gaps

An assessment of data gaps is provided in the following table:

Table 3-3: Data Gap Assessment

Data Gap	Assessment
Soil sampling (General)	The previous investigations generally did not include sampling within areas not readily accessible (i.e. beneath buildings, most notably the northern building). Sampling of these areas is required. The RAP proposes that this occurs as part of the overall site validation process, as a DGI.
Soil sampling (UST and associated infrastructure)	The previous investigations generally did not include sampling in the immediate vicinity of the USTs and associated infrastructure (tank pit backfill, backfilling of trenches and lines, etc). Sampling of these areas is required. The RAP proposes that this occurs as part of the overall site validation process, as a DGI.

Data Gap	Assessment
Soil sampling (Tree Protection Zones - TPZs)	The previous investigations included limited sampling within the TPZs. Minimal sampling has occurred within TPZs centrally along the Lane Cove Road frontage and within the north and north-east of the site. Sampling of these areas is required. The RAP proposes that this occurs as part of the overall site validation process, as a DGI.
Asbestos quantification in soils	Asbestos quantification of soils was undertaken using boreholes. In some instances, insufficient sample return was achieved for meaningful field quantification of asbestos. This RAP proposes that supplementary soil sampling (discussed in Section 4) is to be completed using test pits, unless it is not practicable to do so. Where boreholes are required (e.g. due to access constraints) large diameter augers, or other suitable equipment, should be used to ensure adequate sample volume is achieved from each location.

3.2 CSM

The table below includes an iteration of the CSM which has been developed to inform the RAP. The CSM will require further review when additional site data becomes available.

Table 3-4: Review of CSM

Contaminant source(s) and contaminants of concern	**Contaminants of Concern:** **Fill:** asbestos (ACM and AF/FA). **CoPC:** **Soil (applicable to areas where there are sampling data gaps):** Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc); TRH/benzene, toluene, ethylbenzene and xylene (collectively known as BTEX); polycyclic aromatic hydrocarbons (PAHs); OCPs; organophosphate pesticides (OPPs); polychlorinated biphenyls (PCBs); and asbestos (ACM and AF/FA).
Affected media	Fill. Natural soil/bedrock are possibly affected media in relation to areas where there are sampling data gaps (most notably associated with the USTs).
Receptor identification	Human receptors include site users (predominantly adults), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users. Ecological receptors include terrestrial organisms and plants within unpaved areas (including the existing and proposed landscaped areas).
Exposure pathways and mechanisms	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH and BTEX and naphthalene - BTEXN). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Potential exposure pathways for ecological receptors include primary 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, inhalation of vapours within enclosed spaces such as buildings and basements, or exposure during intrusive maintenance activities. The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the proposed buildings (either from soil/bedrock contamination); and • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas, or during construction.

3.3 Remediation Extent

For the purpose of the RAP, the extent of remediation includes the entire site as shown on Figures 1 and 2 attached in appendix A. The extent of remediation can be further defined as follows:

- Asbestos impacts in fill – all fill within the northern and central portions of the site is deemed to be impacted by asbestos, unless demonstrated otherwise via the DGI and validation processes. The extent of asbestos contamination (i.e. asbestos concentrations above the Health Screening Levels [HSLs] or at the ground surface), in contrast to asbestos impacts, has been more localised. The approximate extent of asbestos remediation is north-east of the black dashed line shown on Figure 6 attached in Appendix A; and
- The horizontal and vertical extent of remediation in relation to the USTs and associated infrastructure are to be confirmed via the DGI and validation processes. However, results to date suggest that any associated impacts will be relatively localised.

A review of the remediation extent is to occur following the DGI and any associated site-specific human health or ecological risk assessment that is triggered by the DGI process (see Section 4). Notwithstanding, JKE is of the opinion that there is adequate existing data to provide a robust assessment of remedial options that can be implemented to achieve the remediation goal.

4 DATA GAP INVESTIGATION

In our opinion, the gaps cannot all be practicably closed out until after demolition occurs. An evaluation of the data gaps is presented in Section 3.1.3 of this RAP.

Prior to commencing the DGI, a Detailed Sampling, Analysis and Quality Plan (SAQP) must be prepared.

4.1 Summary Scope of Field Work

Following demolition of the existing buildings/structures, and prior to the commencement of investigations, an 'emu pick' to remove FCF/ACM from the surface of the building footprints is to be undertaken by a suitably licensed asbestos removalist, and an asbestos clearance certificate obtained from an LAA. This should occur under the demolition contractor's scope of work.

The proposed data gap investigation fieldwork is to include the following (as a minimum):

- Fill/soil sampling from eight additional locations (201 to 208 inclusive), as nominated on Figure 6 attached in Appendix A, targeted to the footprint of the northern building where sampling has not occurred to date. One soil sample per fill/natural profile encountered (at each location) must be analysed. Field quantification of asbestos (via bulk 10L sample screening) is to be undertaken from the surficial soils (0-100mm) and from each fill profile encountered. Where deep fill profiles (>1m thickness) are encountered, additional inspection and sampling will be required;
- Field screening for visible FCF/ACM of fill soils from 11 additional locations (209 to 219 inclusive), as nominated on Figure 6 attached in Appendix A, targeted to the southern building footprint where sampling was limited due to access constraints and the use of hand tools. Field quantification of asbestos (via bulk 10L sample screening) is to be undertaken from the surficial soils (0-100mm) and from each fill profile encountered. In the event that the fill characteristics vary considerably from the existing information (such as deep filling, notable quantities of anthropogenic inclusions, odours/stains), representative samples must be collected and analysed; and
- Fill sampling from 10 additional locations (220 to 229 inclusive), as nominated on Figure 6 attached in Appendix A, targeted to the TPZs within the northern portion of the site. One soil sample per fill profile (at each location) must be analysed. Field quantification of asbestos (via bulk 10L sample screening) is to be undertaken from the surficial soils (0-100mm) and from each fill profile encountered. Where deep fill profiles (>1m thickness) are encountered, additional inspection and sampling will be required.

For the additional soil sampling, the use of test pits is the preferred method of investigation. However, it is acknowledged that this may not be practicable in all locations, due to access/equipment limitations. Therefore, the use of boreholes is also considered acceptable, provided they include the use of a large diameter (>150mm) auger for the field screening of asbestos. Investigation within the TPZ will likely be restricted to hand tools to limit the potential for damage to root systems, and must be confirmed with the project arborist. The rationale for the selection of sampling equipment (excavator, drill rig, etc) is to be presented in the SAQP.

An appropriate health and safety plan, including an AMP, is to be prepared for the investigation to consider the field procedures and potential risks from asbestos.

It is noted that the assessment of data gaps (outlined in Section 3.1.3) identified a need for further investigation of the USTs and associated infrastructure. JKE is of the opinion that impacts associated with these AEC are likely to be localised and further investigation at this stage would be unlikely to refine the remediation extent. Further investigation of these AEC/point sources of contamination prior to commencement of remediation works is considered to be not required and these AEC can be assessed during the remediation and validation process.

4.2 Summary Scope of Laboratory Analysis

Samples are to be submitted to a National Association of Testing Authorities (NATA) accredited laboratory for analysis, as follows:

- Soil samples (fill, natural soil and/or bedrock) collected from the northern building footprint (i.e. sample locations 201 to 208 inclusive) must be analysed for the CoPC for soil identified in the CSM. Asbestos analysis on fill samples must occur using the NEPM 2013 gravimetric quantification methods;
- Fill soil samples collected from the southern building footprint (i.e. sample locations 209 to 219 inclusive) must be analysed for asbestos using the NEPM 2013 gravimetric quantification methods, wherever visible ACM is identified in the bulk screening. Where the fill is observed to vary considerably from the expected conditions, soil samples (fill, natural soil and/or bedrock) must be analysed for the CoPC for soil identified in the CSM;
- Fill soil samples collected from the TPZs (i.e. sample locations 220 to 229 inclusive) must be analysed for asbestos using the NEPM 2013 gravimetric quantification methods;
- Samples of fibre cement, if encountered, are to be analysed for asbestos;
- Leachate analysis is to occur as required for waste classification purposes; and
- QA/QC samples are to be obtained and analysed to meet the NEPM (2013) requirements applicable to each media being sampled.

4.3 Summary of Data Assessment

Soil data are to be compared the relevant Tier 1 screening criteria presented in the additional contamination investigation report, which are based on the land use Type D scenario defined in Schedule B1 of NEPM (2013). The soil data are also to be assessed in accordance with the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014)[6].

4.4 Summary Scope of Reporting

On completion of the DGI, a DGI report is to be prepared in accordance with the Consultants Reporting on Contaminated Land (2020)[7] guidelines. Where deemed necessary, a site-specific human health and/or ecological risk assessment must also occur, though this is not expected to be required.

On completion of the investigation, a waste classification assessment report should be prepared presenting the results of the investigation and with regards to the reporting requirements specified by the NSW EPA

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

[7] NSW EPA, (2020). *Consultants reporting on contaminated land, Contaminated Land Guidelines.* (referred to as Consultants Reporting Guidelines)

(see Section 6.4.1). The waste classification assessment must also consider the previous soil data. The waste classification assessment may be included within the data gap investigation report or as a stand-alone report.

The RAP is to be finalised on completion of the DGI and is to detail the specific remediation and validation requirements for the proposed development.

5 REMEDIATION OPTIONS

5.1 Soil Remediation

The NSW EPA follows the hierarchy set out in NEPM (2013) for the remediation of contaminated sites. The preferred order for soil remediation and management is as follows:

1. On-site treatment of soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level;
2. Off-site treatment of excavated material so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site;

Or if the above are not practicable:

3. Consolidation and isolation of the soil by on-site containment within a properly designed barrier; and
4. Removal of contaminated material to an approved site or facility, followed where necessary by replacement with clean material; or
5. Where the assessment indicates that remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy.

For simplicity herein, the above hierarchy are respectively referred to as Option 1, Option 2, Option 3 etc.

The NEPM 2013 and Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[8] require consideration of the following in assessing remediation options:

1. Minimisation of public risk;
2. Minimisation of contaminated soil disturbance; and
3. Minimisation of contaminated material/soil moved to landfill, including minimisation of risks associated with transportation.

The Guidelines for the NSW Site Auditor Scheme, 3rd Edition (2017)[9] provides the following additional requirements to be taken into consideration:

- Remediation should not proceed in the event that it is likely to cause a greater adverse effect than leaving the site undisturbed; and
- Where there are large quantities of soil with low levels of contamination, alternative strategies should be considered or developed.

[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] NSW EPA (2017). *Guidelines for the NSW Site Auditor Scheme, 3rd ed.* (referred to as Site Auditor Guidelines 2017)

5.2 Consideration of Remediation Options

The following table discusses a range of remediation options:

Table 5-1: Consideration of Remediation Options

Option	Discussion	Applicability
Option 1 **On-site treatment of contaminated soil**	On-site treatment can provide a mechanism to reuse the processed material, and in some instances, avoid the need for large scale earthworks. Treatment options are contaminant-specific and can include bio-remediation, soil washing, air sparging and soil vapour extraction, thermal desorption and physical removal of bonded ACM. Depending on the treatment option, licences may be necessary for specific individual waste streams due to the potential for air pollution and the formation of harmful by-products during incineration processes. Licences for re-use of treated material/waste may also be required.	Treatment of soil for asbestos is not a valid approach when asbestos has been identified as AF/FA. It is also not valid for soils with mixtures of contaminants including asbestos as AF/FA. Treatment of surficial soils (via 'emu picking') impacted by bonded ACM is a viable approach where no other contaminant impacts exist. This method is not likely to be viable for deeper fill or clayey soils.
Option 2 **Off-site treatment of contaminated soil**	Contaminated soils are excavated, transported to an approved/licensed treatment facility, treated to remove/stabilise the contaminants then returned to the subject site, transported to an alternative site or disposed to an approved landfill facility. This option is also contaminant-specific. The cost per tonne for transport to and from the site and for treatment is considered to be relatively high. The material would also have to be assessed in terms of suitability for reuse as part of the proposed development works under the waste and resource recovery regulatory framework.	Not applicable due to the occurrence of asbestos as this is not supported under the current regulatory framework.
Option 3 **Consolidation and isolation of impacted soil by cap and containment**	This would include capping of impacted soil in-situ, followed by placement of an appropriate barrier over the material to reduce the potential for future disturbance and/or exposure. The capping must be appropriate for the specific contaminants of concern and protection for the relevant receptors (i.e. human health and ecological). A Long-Term Environmental Management Plan (EMP) will be required and will need to be publicly notified and made to be legally enforceable (e.g. via listings in the Section 10.7 planning certificate and on the land title).	Considered to be applicable for asbestos in fill and also for any other contamination (if identified) in soil and/or bedrock that is deemed not to pose an unacceptable risk to groundwater, or a soil vapour risk, if it is capped/retained on site. This option typically would be impracticable to implement in areas where basements are proposed, or where contaminated soils need to be placed below observed groundwater levels.

Option	Discussion	Applicability
<u>Option 4</u> Removal of contaminated material to an appropriate facility and reinstatement with clean material	Contaminated soils would be classified in accordance with NSW EPA guidelines for waste disposal, excavated and disposed of off-site to a licensed landfill. The material would have to meet the requirements for landfill disposal. Landfill gate fees (which may be significant) would apply in addition to transport costs.	This option is applicable for the remediation of contaminated fill soils given the shallow depth of filling encountered, the extent of the proposed development and earthworks. Preliminary bulk earthwork plans provided to JKE indicate a surplus of soil which will need to be disposed off-site. It is noted that the provided plans indicate that some trees will be retained. Consultation and supervision by the appointed arborist would be required for excavation within the TPZs and it may not be possible to remove all fill and retain the trees.
<u>Option 5</u> Implementation of management strategy	Contaminated soils would be managed in such a way to reduce risks to the receptors and monitor the conditions over time so that there is an on-going minimisation of risk. This may occur via the implementation of monitoring programs.	Not considered to be applicable in consideration of the contaminants of concern and the context of the proposed site redevelopment.

5.3 Preferred Remediation Options and Rationale

The preferred remediation option is Option 4 (excavation and off-site disposal). Option 4 (excavation and disposal) is considered to be a preferred option due to the following:

- The fill depths across the site are typically shallow. Deeper potential impacts associated with fuel storage activities are likely to be localised;
- The potential for remediation failure is negligible;
- This option will address any contamination that poses a risk to human health;
- It simplifies future management requirements for the site in relation to ongoing management of contamination as it can avoid the need for an EMP;
- It aligns with the generally low risk appetite of the client; and
- It generally aligns with the earthworks required for the proposed development (i.e. cut/fill and excavation for the buildings).

It is noted the Option 4 (excavation and disposal) may not be feasible to address all identified contamination, particularly within TPZs. Option 3 (cap and contain) is considered to be appropriate for fill impacted by asbestos and other CoPC (if a need for remediation is identified), provided it does not pose an unacceptable risk to groundwater or vapour intrusion, if it were contained on-site. JKE consider this option would be practicable in areas to be filled, beneath pavements, and within TPZs where a tree must be retained (however, capping contamination in a TPZ can be problematic and should be avoided if possible, in our opinion). This option is likely not suitable for a large portion of the site due to the extent of excavation proposed, and the overall cut/fill balance indicating the project will result in a considerable excess of material.

A cap and contain approach can be implemented 'in-situ' if necessary, or soils can be placed into a purpose-built containment cell.

In our opinion there is adequate data to provide confidence in the assessment of remedial options and identify those that are preferred. However, the DGI process (as outlined in Section 4 of this RAP) will be used to confirm the final extent of remediation and the specific details regarding the execution of the remediation works and associated validation tasks. The RAP is to be finalised following completion of the DGI process.

6 REMEDIATION DETAILS

Prior to commencement of any demolition, site preparation or remediation work within the site, a suitably qualified contaminated land consultant[10] must be engaged as the validation consultant to validate the implementation of the RAP.

The following general sequence of works is anticipated:

- **Hold Point** - Preparation of an AMP for the proposed demolition, remediation and development works;
- Site establishment, demolition and removal of structures and pavement;
- **Hold Point** - Completion of DGI and associated reports;
- Remediation of the UST areas;
- Excavation and off-site disposal of contaminated soil (and validation of this remediation); and/or
- Capping and containing of contaminated soil beneath a suitable capping layer system (and validation of this remediation);
- Validation of any imported materials. This includes engineering material such as sub-base and drainage materials (e.g. recovered aggregate etc), capping materials, or any other materials such as landscaping soil, material imported for service trenches etc, to the point in time that the validation report is issued; and
- Preparation of site validation report and (if contaminated soil is capped/retained on-site) an EMP.

Details in relation to the above are outlined in the following subsections.

6.1 Roles and Responsibilities

Table 6-1: Roles and Responsibilities

Role	Responsibility
Client/Developer	NEXTDC The client/developer is required to appoint the project team for the remediation and must provide all investigation reports and this RAP to the project manager, remediation contractor, consent authority and any other relevant parties involved in the project.
Project Manager	Multiplex The project manager is required to review all documents prepared for the project and manage the implementation of the procedures outlined in this RAP. The project manager is to take reasonable steps so that the remediation contractor and others have understood the RAP and will implement it in its totality. The project manager will review the RAP and other documents and will update the parties involved of any changes to the development or remediation sequence (in consultation with the validation consultant).
Remediation Contractor	To be appointed. The remediation contractor is required to review all documents prepared for the project, apply for any relevant removal licences or permits and implement the remediation requirements outlined in this RAP. The remediation contractor may also be the construction contractor.

[10] The consultant must be a certified practitioner (specialising in site contamination), under one of the NSW EPA endorsed certification schemes

Role	Responsibility
	The remediation contractor is required to collect all necessary documentation associated with the remediation activities and forward this documentation onto the client, project manager and validation consultant as it becomes available. The remediation contractor is required to advise the validation consultant at key points in the remediation and validation programme, and implement various aspects of the validation plan assigned to them. The remediation contractor must hold a Class A asbestos removalist licence, or be in a position to sub-contract these services.
Validation Consultant	To be appointed. The validation consultant provides consulting advice and validation services in relation to the remediation, and prepares the site validation report, and any other associated documentation such as the AMP, DGI report, finalised RAP etc. The validation is required to review any deviation to the finalised RAP or in the event of unexpected finds if and when encountered during the site work. The validation consultant must have a LAA on staff to provide friable asbestos clearances where needed. The validation consultant is required to liaise with the client, project manager and remediation contractor on all matters pertaining to the site contamination, remediation and validation, carry out the required site inspections, and collect validation samples for imported materials.
Site Auditor	To be appointed, where required in accordance with the development consent. The site auditor would review the information provided by the validation consultant, including (but not limited to) the site validation report. The auditor is to be engaged to review the investigation reports and RAP prior to commencement of the remediation. The developer, project manager and validation consultant are to consult with the auditor in the event of unexpected finds and/or deviations to the RAP.

6.2 Pre-commencement

The project team is to have a pre-commencement meeting to discuss the sequence of remediation, and the remediation and validation tasks. The site management plan for remediation works (see Section 9) must be reviewed by project manager and remediation contractor, and appropriate steps are to be taken to ensure the adequate implementation of the plan.

6.3 Remediation and Associated Tasks

6.3.1 Asbestos Management Plan (AMP)

An AMP must be prepared for the site by a LAA and implemented for the site demolition, remediation and development works (involving asbestos). The AMP is to include the minimum personal protective equipment (PPE), work health and safety (WHS) and other requirements outlined in the documents published by Safe

Work Australia, SafeWork NSW, National Occupational Health and Safety Commission, and other relevant authorities as applicable.

Where there are inconsistency(s) between the AMP and the RAP, the more conservative/stringent approach is to be adopted and a discussion included within the validation report.

6.3.2 Site Establishment and Demolition

The remediation contractor is to establish on site as required to facilitate the remediation. Consideration must be given to the work sequence and extent of remediation so that the site establishment (e.g. site sheds, fencing, access points etc) does not inhibit the remediation works.

The hazardous building materials in the existing structures are to be removed in accordance with the relevant codes and standards.

The AMP is to be prepared prior to the commencement of demolition (as discussed in Section 6.3.1). We are also of the opinion that it would be suitable to have separate AMPs for the demolition versus any soil disturbance/remediation works if that is preferred by the contractors involved. A clearance certificate is to be obtained from a LAA by the demolition contractor following the removal of any hazardous materials. The asbestos clearance certificate(s) must specifically refer to the scope of the clearance(s) including the surficial soils in the building footprints.

The concrete slabs should also be inspected for potential ACM during demolition by the LAA.

All waste from the demolition is to be disposed to facilities that are licenced by the NSW EPA to accept the waste. The demolition contractor is to maintain adequate records and retain all documentation for such activities including:

- A summary register including details such as waste disposal dates, waste materials descriptions, disposal locations (i.e. facility details) and reconciliation of this information with waste disposal docket numbers;
- Waste tracking records and transport certificates (where waste is required to be tracked/transported in accordance with the regulations); and
- Disposal dockets for the waste. Legible dockets are to be provided for all waste materials so they can be reconciled with the register.

The above information is to be supplied to the validation consultant for assessment and inclusion in the site validation report.

6.3.3 Completion of Data Gap Investigation

The details for the DGI are outlined in Section 4 of this RAP. This work must be completed prior to the commencement of remediation (though it is appropriate for the investigations, reporting and remediation/validation to be staged to align with the development staging where applicable).

The finalised RAP will confirm the horizontal/vertical extent of remediation and specific remediation details based on the framework presented below in Sections 6.3.4 (excavation and off-site disposal) and 6.3.5 (cap and contain).

6.3.4 Remediation of USTs and Soils

The USTs and associated infrastructure (i.e. pipe work etc) are to be removed from the site in accordance with the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation (2019)[11], Guidelines for the Implementation of the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008 (2009)[12] (yet to be updated to reflect the new Regulation) and the Australian Standard for The Removal and Disposal of Underground Petroleum Storage Tanks (AS4976-2008)[13]. Reference is also to be made to the UPSS Technical Note: Decommissioning, Abandonment and Removal of UPSS (2010)[14] and the UPSS Technical Note: Site Validation Reporting (2010)[15].

It is noted that various guidelines are outdated and/or are currently being updated to reflect the UPSS Regulation 2019. The remediation is to occur in accordance with the current regulation and best practice guidelines available when the remediation commences.

Table 6-2: Remediation – UST and Surrounding Soils

Step	Primary Role/ Responsibility	Procedure
1.	Remediation contractor	Address Stability Issues and Underground Services/Assets: Geotechnical/structural advice must be sought regarding the stability of the adjacent structures and/or adjacent areas prior to commencing remediation (as required). Stability issues, particularly associated with the adjacent buildings, should be addressed to the satisfaction of a suitably qualified geotechnical/structural engineer. This may require the installation of temporary shoring. All underground services are to be appropriately disconnected or rerouted (or protected/stabilised) to facilitate the works.
2.	Remediation contractor	Personal Protective Equipment (PPE) and WHS: Confirm PPE and WHS requirements prior to commencement of remediation works. Depending on the levels of odours or vapours, appropriate half or full-face respirators may be required and should be made available.
3.	Remediation contractor (or their nominated sub-contractor)	Initial Preparation: The pavement in the remediation area is to be cut and removed with care using an excavator, or similar. An experienced contractor is to be engaged for the removal of the USTs. Liquid and/or sludge within the USTs and associated pipe work is to be pumped out and disposed of lawfully by a licensed liquid waste operator prior to moving or removing the tank.

[11] *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019* (NSW). (referred to as UPSS Regulation 2019)

[12] NSW DECC, (2009). *Guidelines for the Implementation of the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008.* (referred to as UPSS Guidelines 2009)

[13] Standards Australia, (2008). *The Removal and Disposal of Underground Petroleum Storage Tanks.* (referred to as AS4976-2008)

[14] NSW DECCW, (2010). *UPSS Technical Note: Decommissioning, Abandonment and Removal of UPSS*

[15] NSW DECCW, (2010). *UPSS Technical Note: Site Validation Reporting*

Step	Primary Role/ Responsibility	Procedure
	Validation consultant (inspections)	Once the liquid has been removed, break out the anchor weights and recycle these along with pavement materials. Retain all waste classification and disposal documentation and provide to the validation consultant for inclusion in the validation report. The validation consultant is to be present to inspect these works.
4.	Remediation contractor (or their nominated sub-contractor) and validation consultant	<u>Removal of the USTs/infrastructure, impacted soils, followed by validation:</u> The USTs and associated infrastructure are to be removed by an experienced contractor in accordance with AS4976-2008 and with regards to the Work Health and Safety Regulation (2025). Following removal, remediation of the area will be undertaken as follows: • The backfill soils (most likely to be sandy fill) surrounding the USTs are to be excavated and stockpiled separately. All stockpiles should be placed on builder's plastic on the adjacent hardstand with appropriate silt control. This material is to be validated by the validation consultant for waste classification purposes as outlined in Section 7; • Submit an application to dispose of the backfill soil (in accordance with the assigned waste classification) to a facility that is appropriately licensed to receive the waste, and obtain authorisation to dispose; • If the validation consultant can demonstrate that the backfill does not pose an unacceptable contamination risk and there are no unacceptable aesthetic impacts, the backfill can be kept on site and used to backfill the excavation if geotechnically suitable. Otherwise, load the backfill soil onto trucks and dispose in accordance with the assigned waste classification; • Depending on the contamination status of the backfill, excavation of additional material at the base and walls of the tank pit may be required. This should initially involve excavation/chase-out of material to extend the pit (say 0.5m initially) in the direction of the suspected impact. The validation consultant must be present during the excavation to provide advice on the potential extent of contamination based on visual and olfactory indicators, and photo-ionisation detector (PID) screening results; • Stockpile the additional excavated material separately to the backfill that was initially excavated, and undertake a waste classification/re-use assessment as outlined above. If the validation consultant can demonstrate that the excavated material does not pose an unacceptable contamination risk or aesthetic impacts, the material can be kept on site and used to backfill the excavation if geotechnically suitable. Otherwise, load the soil onto trucks and dispose in accordance with the assigned waste classification; • The validation consultant is to obtain validation samples from the walls and base of the excavation in accordance with Section 7; • Document observations regarding the presence (or otherwise) of groundwater at the base of the tank pit; and • All documents including landfill disposal dockets, UST disposal/destruction dockets, liquid waste disposal etc. must be retained by the remediation contractor and forwarded to the client and validation consultant. This documentation forms a key part of the validation process and is to be included in the validation report.
5.	Remediation contractor and validation consultant	<u>Backfilling/Reinstatement of Excavations:</u> After successful validation, remedial excavations are to be reinstated with clean (validated) materials, to meet the geotechnical requirements of the project. Imported materials must be validated in accordance with the validation plan outlined in Section 7, with sampling/analysis occurring prior to importation.

Step	Primary Role/ Responsibility	Procedure
		In the event that the tank pit backfill and/or material that is chased out of the remedial excavations is assessed appropriately and is not considered to pose an unacceptable risk to groundwater or any of the identified receptors, consideration can be given to using this material to backfill the tank pit. If this occurs, it must be documented in the validation report. Where UST remediation excavations are located within the bulk excavation area, they may be isolated/barricaded as an alternative to temporary reinstatement, if this is the contractor's preference. All soil and water (including seepage/rainfall accumulation within the excavation) must be managed in accordance with the remediation contractors' site soil and water management plan.

6.3.5 Remediation – Excavation and Disposal of Contaminated Fill

The procedure for excavation and disposal of contaminated fill where applicable is outlined in the following table:

Table 6-3: Remediation Details – Excavation and Disposal

Step	Primary Role/ Responsibility	Procedure
1.	Remediation contractor	Removal of fill containing asbestos will be undertaken by a Class A licensed asbestos removal contractor. The contractor will prepare an Asbestos Removal Control Plan (ARCP) and will provide statutory notification for the removal of asbestos at least five days prior to commencement of asbestos removal works. All relevant asbestos management controls are to be implemented during the works as required under the ARCP and AMP.
2.	Remediation contractor	<u>Address Stability Issues and Underground Services</u>: Geotechnical advice is to be sought regarding the stability of any adjacent structures and/or adjoining areas prior to commencing remediation (as required). Stability issues should be addressed to the satisfaction of a suitably qualified geotechnical/structural engineer. This may require the installation of temporary or permanent shoring. All underground services are to be appropriately disconnected or rerouted to facilitate the works.
3.	Remediation contractor Validation consultant (re: waste classifications)	<u>Removal of Contaminated Fill and/or Soil:</u> Remediation will be undertaken as follows: • The area of excavation is to be appropriately delineated/marked out so the extent is known to the excavator operators; • Submit an application to dispose of the fill (in accordance with the assigned waste classification to be confirmed via the DGI process outlined in Section 4) to a facility that is appropriately licensed by the NSW EPA to receive the waste, and obtain authorisation to dispose. Noting the presence of asbestos in the waste stream where applicable, making the material Special Waste for off-site disposal; • Register with the NSW EPA-endorsed waste tracking system to comply with the legislation in regards to transporting/movement of asbestos waste; • A water system will need to be in place to spray the excavated soil during excavation/ remediation works and to decontaminate trucks entering the work area. The general site area should be kept damp during remediation works to minimise the generation of dust;

		• Asbestos related controls including air monitoring for asbestos removal works are to be implemented as per the AMP; • Excavate the fill down to the required depth (expected to be the underlying natural soil or rick – whichever is shallower) and to the full horizontal extent of the remediation area, and load the fill onto trucks and dispose in accordance with the assigned waste classification. The receiving landfill facility should be contacted prior to disposal and should be licensed to accept the waste stream; • The occurrence of unexpected finds (staining/odours, additional underground infrastructure) during the soil removal are to be documented and addressed with regards to Section 8.1; and • All documents including landfill disposal dockets must be retained by the remediation contractor and forwarded to the client and validation consultant. This documentation forms a key part of the validation process and is to be included in the validation report.
4.	Validation consultant	<u>Validation of Excavation:</u> Once the material is excavated/removed to the required levels, the base and walls of the remedial excavation are to be validated in accordance with the validation plan outlined in Section 7, which includes soil sampling/analysis, bulk field screening and completion of a surface asbestos clearance by a LAA. Where excavation of contaminated soil is undertaken only partially to facilitate the installation of the capping system, validation of the remaining soils and excavation will not be required as the capping layer and long-term EMP requirements will be applicable.
5.	Remediation Contractor and Validation Consultant	<u>Backfilling/Reinstatement of Excavation:</u> Where required, the remedial excavation is to be reinstated with clean (validated) materials, to meet the geotechnical and landscape requirements of the project (as applicable). Imported materials must be validated in accordance with the validation plan outlined in Section 7.

6.3.6 Remediation – Cap and Contain

The premise for this part of the remedial strategy is based around capping the fill/soil beneath appropriate (clean) capping layers. The proposed capping system requires consideration during the design of the buildings/pavements, in-ground structures and landscaping/planting areas.

A summary of the proposed capping strategy is provided in the following table. JKE understand from the client that a cap and contain approach is only to be considered where excavation of all contaminated soil is not feasible/practicable to achieve, such as within TPZs. The details of the final capping strategy are to be confirmed in the finalised RAP based on the findings of the DGI and consider inputs from the project arborist and engineering team, as appropriate.

Table 6-4: Capping Specification

Area	Capping Specification
Continuous hardstand (concrete/AC pavement, new buildings).	Installation of: • High-visibility geotextile marker[16] layer over the impacted fill/soil; • Clean imported (validated) basecourse, only as required based on the engineering specification; and • Pavement material (i.e. concrete) as per engineering specification, or construction of the built form.
Service Trenches. This includes new in-ground services installed within the contaminated soils.	Installation of: • High-visibility geotextile marker over the impacted fill/soil (walls and base of services trench); and • Backfill of the trench with clean imported and validated capping material. The marker layer must be overlapped or appropriately fixed to the marker layer material in the areas adjoining the trench.
Soft/flexible pavement.	Installation of: • High-visibility geotextile marker over the impacted fill/soil; • At least 200mm clean imported and validated capping material; and • Surface finish to required development design. Where the pavement extends into a TPZ, the flexible pavement is to be designed and installed to be permeable to water and air flow in accordance with the advice of the project arborist and installation specialist for the flexible pavement. Within the TPZ, the flexible pavement can form part or all of the capping layer (i.e. at least 200mm thickness including pavement), subject to the design/installation requirements of the pavement. The flexible pavement may be mounded within the structural root zones (SRZ), as required, and dished towards to the base of the trees within close proximity of the tree base. However, these must still be designed to prevent access to the underlying contaminated soils.
Landscaped areas (including TPZ).	Installation of: • High-visibility geotextile marker over the impacted fill/soil; • A geo-grid layer; • At least 200mm clean imported (validated) capping material; and • Surface finish to required development design (i.e. mulch cover). Within TPZs, the capping material should not be placed in direct contact with the tree trunk. It is anticipated that the capping layer will taper towards the base of the trunk within an approximate 1m radius of the tree trunk. The capping layer at the base of the tree trunk should be sufficient to ensure adequate capping above the geotextile marker and may include mulch cover to obtain a suitable thickness of clean material[17].

[16] The purpose of the geotextile marker is to provide visual demarcation to the underlying contaminated fill, should the overlying capping layers be disturbed. The client/project manager, remediation contractor and validation consultant are to agree on appropriate materials based on the project requirements. From a contamination and future/long-term management perspective, the TerraStop® Hi Vis Layer (HVL Medium – which is a bright orange, non-woven geotextile) product (or similar products) would be suitable.

[17] The capping specification within the immediate vicinity of the existing tree trunks is to be agreed upon with the client/contractor, validation consultant and arborist. Preference should be given to extending the geogrid to the required height up the trunk and installation of capping to the geofabric material. The capping layer is not to be compromised by providing a gap which would allow for contact with the impacted fill. Notwithstanding, consultation will be required with the arborist to agree on the capping provisions are acceptable in the TPZ.

Area	Capping Specification
Purpose-built cell	The minimum capping requirements for a purpose-built cell will align with the specifications above, depending on those features constructed above the cell.

The procedure for capping and containing the impacted fill/soil is outlined in the following table:

Table 6-5: Remediation – Areas to be Capped

Step	Primary Role/ Responsibility	Procedure
1.	Remediation contractor	Bulk earthworks/site preparations: The remediation contractor is to complete the earthworks/preparation works required to facilitate the proposed capping of the site. All works are to occur with regards to the relevant asbestos management controls. Where a purpose-built cell is proposed, the finalised RAP must include sufficient details regarding the cell location, depth, overlying capping requirements and materials handling plan etc. Where piling is required, it would also be preferable for the piling area to be stripped of fill/impacted soils and the piling platform to be created adjacent to the alignment of the piles (i.e. drilling to the side of the piling platform, rather than through the platform, where it is suitable to do so from an engineering and practical perspective), to minimise the potential for cross-contamination between fill and natural soils. It is likely that piling spoil would be required to be disposed off-site unless it can be capped.
	Validation consultant	Any imported materials used (including materials for site preparation, including a piling platform) must be validated by the validation consultant. Any surplus excavated material must be assigned a waste classification and disposed off-site (see general procedures for excavation/disposal in Section 6.3.4).
2.	Remediation contractor (or the nominated construction contractor)	Survey of site levels: A pre-capping levels survey is to be completed by the relevant contractor. This is to occur after the installation of the geotextile marker layer, but before the installation of any overlying capping layers. The purpose of the survey is to provide a record of the site levels across the top of the marker layer. The location of (i.e. alignment) and depth to the base of any service trench (i.e. the top of the marker layer at the base of the trench) must also be surveyed. Survey points are to be recorded with a spacing of not more than 15m between adjacent points. Additional survey points will be required in the vicinity of changes in surface slope and for specific features such as service trenches and TPZs.
3.	Remediation contractor (or the nominated construction contractor)	Capping: The cap is to be constructed in accordance with the capping specification outlined above in Table 6-4, or such details to be confirmed in the finalised RAP.
	Validation consultant	Any imported materials used are to be validated by the validation consultant in accordance with Section 7. The validation consultant is required to inspect the capping works and imported materials in accordance with the validation plan.

Step	Primary Role/ Responsibility	Procedure
4.	Remediation contractor (or the nominated construction contractor)	Post-capping survey of site levels: A post-capping levels survey is to be completed by the relevant contractor. This should occur after the completion of capping when the final site levels have been achieved. The purpose of the survey is to provide a record of the finished levels and verify that the minimum capping thicknesses have been achieved. Survey points are to be recorded as close as practicable to the pre-capping survey points.

The detailed validation plan relevant to the above items is provided in Section 7.

6.4 Remediation Documentation

The remediation contractor must retain all documentation associated with the remediation, including but not limited to:

- Waste disposal dockets and register (see below);
- Waste tracking documentation;
- Asbestos management documentation, including all relevant notifications, clearances and monitoring reports;
- Photographs of remediation works;
- Survey information of capped areas (as applicable); and
- Imported materials documentation from suppliers, including any routine analysis reports, product specifications and dockets/register (see below) for imported materials.

Copies of these documents must be forwarded to the project manager and the validation consultant for assessment and inclusion in the validation report.

6.4.1 Waste Register

All waste removed from the site is to be appropriately tracked and managed in accordance with the relevant regulations. The remediation contractor (and/or their nominated construction contractor) is to maintain adequate records and retain all documentation for waste disposal activities including:

- A summary register including details such as waste disposal dates, waste materials descriptions, disposal locations (i.e. facility details) and reconciliation of this information with waste disposal docket numbers; and
- Waste tracking records and transport certificates (where waste is required to be tracked/transported in accordance with the regulations); and
- Disposal dockets for the waste. Legible dockets are to be provided for all waste materials so they can be reconciled with the register.

An example waste tracking register is attached in Appendix E.

Any soil waste classification documentation is to be prepared in accordance with the reporting requirements specified by the NSW EPA and must consider the historical/DSI data. Reports are to include:

- The full name, address, Australian Company Number (ACN) or Australian Business Number (ABN) of the organisation and person(s) providing the waste classification;
- Location of the site where the waste was generated, including the source site address;
- History of the material and the processes and activities that have taken place to produce the waste;
- Potential contaminating activities that may have occurred at the site where the waste was generated;
- Description of the waste, including photographs, visible signs of contamination, such as discolouration, staining, odours, etc;
- Quantity of the waste;
- Number of samples collected and analysed;
- Sampling method including pattern, depth, locations, sampling devices, procedures, and photos of the sample locations and samples;
- Contaminants tested;
- Laboratory documentation – chain-of-custody (COC), sample receipt, laboratory report;
- All results regardless of whether they are not used in the classification process;
- Results of sample mean, sample standard deviation and the 95% upper confidence limit (UCL) where relevant;
- Brief summary of findings including discussion of results; and
- A clear statement of the classification of the waste as at the time of the report.

A soil volume analysis should be undertaken on completion of remediation and reconciled with the quantities shown on the soil disposal dockets. This information is to be reviewed by the validation consultant on completion of the works and an assessment of the quantities of soil disposed off-site (e.g. comparison with the estimated and actual volumes) is to be included in the validation report. A review of the disposal facility's licence issued under the Protection of the Environment Operations (POEO) Act (1997)[18] should also be undertaken to assess whether the facility is appropriately licensed to receive the waste.

6.4.2 Imported Materials

The remediation contractor (and/or their nominated construction contractor) is to maintain for the duration of the project an imported material register. This must include a register (preferably in Microsoft Excel format) with details of each imported material type, supplier details, summary record of where the imported materials were placed on site, and importation docket numbers and a tally of quantities (separated for each import stream). Legible dockets for imported materials are to be provided electronically so these can be reconciled with the register.

[18]NSW Government, (1997)). *Protection of Environment Operations Act.* (referred to as POEO Act 1997)

The above information is to be provided to the validation consultant for inclusion in the validation report. It is recommended that the register be set up at the beginning of the project and provided to the validation consultant regularly (say on a monthly or two-monthly basis) so the details can be checked and any rectification of the record keeping process can occur in a timely manner. An example imported materials register is attached in Appendix E.

7 VALIDATION PLAN

Validation is necessary to demonstrate that remedial measures described in this RAP have been successful and that the site is suitable for the intended land use. The validation can be staged if required, depending on the sequence of excavation. However, any staging must be appropriately planned so that cross-contamination does not occur.

The sampling and documentation requirements for the validation are outlined in the following sub-sections. These are the minimum requirements based on conditions anticipated to exist at the site. Additional validation sampling may be required based on site observations made during remediation. Site observations will also be used as a validation tool to assess the extent of site contamination.

7.1 Validation Sampling and Documentation

The table below outlines the validation requirements for the site.

Table 7-1: Validation Requirements

Aspect	Sampling	Analysis	Observations and Documentation
Remediation – UST and Associated Soils			
Tank Pit Backfill	For waste classification purposes: One sample per 25m^3, collected using hand equipment. Minimum three samples. Samples to be collected from at least 0.5m below the surface and evenly spaced across/around the stockpile to be representative of the backfill.	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), TRH/BTEXN, PAHs, OCPs, PCBs and asbestos. Toxicity characteristic leachate procedure (TCLP) analysis as required.	Observations to be recorded by the validation consultant to document fill/soil lithology, staining and odour. Samples are to be screened using PID. Photographs to be taken by validation consultant. Disposal dockets to be retained by the remediation contractor. Waste classification report to be prepared in accordance with the Consultants Reporting Guidelines and NSW EPA Waste Classification Guidelines to facilitate off-site waste disposal.
UST pit chase out spoil (if required)	For waste classification purposes: One sample per 25m^3, collected using hand equipment. Minimum three samples.	As above.	As above.
UST pit – excavation base UST pit – excavation walls	Minimum of two samples per UST to be collected using an excavator after removal of the tank. One sample per excavation wall and per vertical metre, with a	TRH/BTEXN.	Observations to be recorded by the validation consultant to document fill/soil lithology, staining and odour on the base and walls of the excavation. A sample location plan is to be prepared by the validation consultant, documenting the sample locations and final extent of

Aspect	Sampling	Analysis	Observations and Documentation
	minimum of one sample per soil stratum. No less than one sample per 5m lineal along continuous walls >5m long. Additional sampling is also to target obvious indicators of contamination if observed (e.g. odours, staining).		the remediation area. Samples are to be screened using PID. Photographs to be taken by the validation consultant. Groundwater observations to be recorded.
Pipe trenches	One sample per 5m lineal, obtained from the base of the trench. Additional samples to target any areas of staining or odours.	As above.	As above.
Beneath Bowser Plinth (if location is identified/suspected)	One sample per suspected bowser plinth location. Additional samples to target any areas of staining or odours.	As above.	As above.
Remediation – Excavation and Disposal			
Base of excavation: Validation sampling for contaminated fill following removal of fill	Sampling is to occur based on the area of the remedial excavation. As a minimum, validation sampling at the sampling density recommended in Table 2 of the NSW EPA Sampling Design Part 1 – Application (2022)[19] contaminated land guidelines) should be adopted. Bulk sampling (10L field screening) for asbestos is not proposed as the base of remedial excavations are to extent into the natural soil/ bedrock. The sampling must be undertaken on a grid-based plan unless the area is an irregular shape and grid-based sampling is not achievable. In this instance, the samples are to be positioned	Any ACM encountered during the screening is to be analysed for asbestos. The natural soil/bedrock profile exposed at the base of the excavation is to be analysed for the relevant contaminants of concern and asbestos (500mL) identified via the DGI process.	Observations to be recorded by the validation consultant to document fill/soil lithology on the base and walls of the excavation. A sample location plan is to be prepared by the validation consultant, documenting the sample locations and final extent of the remediation area. Photographs are to be taken by the validation consultant. LAA to provide asbestos surface clearance for the base of the remedial excavation. A copy of the clearance certificate is to be forwarded to validation consultant for inclusion in the validation report. Air monitoring results to be reviewed. Disposal dockets to be retained by the remediation contractor and forwarded to validation consultant for inclusion in the validation report.

[19] NSW EPA, (2022). *Sampling design part 1 - application.* (referred to as EPA Sampling Design Guidelines 2022)

Aspect	Sampling	Analysis	Observations and Documentation
	judgmentally for coverage of the area.		
<u>Exposed walls of excavation:</u> Validation sampling for contaminated fill following removal of fill	One sample per exposed fill profile along each excavation wall (minimum one sample per 20m lineal), and per vertical metre where a single fill profile extends beyond 1m deep. One sample per exposed natural soil and rock profile along the/each excavation wall (minimum one sample per 20m lineal), and per vertical metre where a single profile extends beyond 1m deep. Sampling of fill is to include bulk sampling (10L field screening) for asbestos and collection of samples for laboratory analysis as applicable. However, in areas where the DGI has confirmed AF/FA, field screening should not be undertaken due to WHS concerns.	Any ACM encountered during the screening is to be analysed for asbestos. The fill remaining at the walls of the validation area is to be sampled and analysed for relevant contaminants of concern and asbestos (500mL) identified via the DGI process. A visual surface clearance for asbestos is also to be undertaken.	Observations to be recorded by the validation consultant to document fill/soil lithology on the base and walls of the excavation. Each bulk sample is to be weighed (in kg) using an accurate scale to two decimal places. A sample location plan is to be prepared by the validation consultant, documenting the sample locations and final extent of the remediation area. Photographs are to be taken by the validation consultant. LAA to provide asbestos surface clearance for the walls of the remedial excavation. A copy of the clearance certificate is to be forwarded to validation consultant for inclusion in the validation report. Air monitoring results to be reviewed. Disposal dockets to be retained by the remediation contractor and forwarded to validation consultant for inclusion in the validation report.
Remediation – Cap and Contain			
Capping	Only required for validation of imported materials (see below)	See below	Remediation contractor to supply required survey information. Validation consultant to inspect marker layer installation and validate imported materials. Photographs to be taken.
Imported Materials – validation of imported materials is required for any materials imported onto the site during the remediation and to the point in time that the site validation report is prepared (e.g. general fill to raise the site levels or reinstate remedial excavations, imported materials to create piling platform, gravel for site preparation, landscaping materials, material used for capping layers etc).			
Imported virgin excavated natural material (VENM) backfill (if required)	Minimum of three samples per source/material type.	Heavy metals (as above), TRHs, BTEX, PAHs, OCPs & OPPs, PCBs and	Remediation contractor to supply existing VENM documentation/report (report to be prepared in accordance with the NSW EPA waste classification reporting requirements). A hold point remains until

Aspect	Sampling	Analysis	Observations and Documentation
or piling platform material etc		asbestos (500ml). Additional analysis may be required depending on the site history of the source property.	the validation consultant approves the material for importation or advises on the next steps. Material is to be inspected upon importation by the validation consultant to confirm it is free of visible/olfactory indicators of contamination and is consistent with documentation. Photographic documentation and an inspection log are to be maintained. Where check sampling occurs by the validation consultant due to deficiencies or irregularities in existing VENM documentation, the following is required: - Date of sampling and description of material sampled; - An estimate of the volume of material imported at the time of sampling; - Sample location plan; and - Analytical reports and tabulated results with comparison to the Validation Assessment Criteria (VAC).
Imported engineering materials such as recycled aggregate, road base, Excavated Natural Material (ENM) etc Imported garden mix/topsoil and mulches	Minimum of three samples per source/material type. Where sourced from a recycled product, testing must also meet the specification within the relevant resource recovery order and exemption for the material type (i.e. the Recovered Aggregates Order, the ENM Order). If the analysis/testing frequency is not compliant, the validation consultant must carry out the assessment and prepare the report in accordance with the relevant Order/Exemption prior to the material being imported.	Heavy metals (as above), TRHs, BTEX, PAHs, OCPs, PCBs and asbestos (500ml quantification). Additional testing may be required for ENM (e.g. foreign materials, pH and electrical conductivity) depending on available documentation. Analysis of mulch can be limited to visual observations to confirm there is limited anthropogenic material and no visible asbestos materials.	Remediation contractor to provide product specification and documentation to confirm the material has been classified with reference to a relevant Resource Recovery Order/Exemption, or other standard as may be applicable for landscaping materials. A hold point remains until the validation consultant approves the material for importation or advises on the next steps. Review of the facility's Environment Protection Licence (EPL). Material is to be inspected by the validation consultant upon importation to confirm it is free of visible/olfactory indicators of contamination and is consistent with documentation. Where check sampling occurs by the validation consultant due to deficiencies or irregularities in existing documentation, the following is required: - Date of sampling and description of material sampled; - An estimate of the volume of material imported at the time of sampling; - Sample location plan; and

Aspect	Sampling	Analysis	Observations and Documentation
			- Analytical reports and tabulated results with comparison to the VAC.
Imported engineering materials comprising only natural quarried products.	At the validation consultant's discretion based on robustness of supplier documentation.	At the validation consultant's discretion based on robustness of supplier documentation.	Remediation contractor to provide documentation from the supplier confirming the material is a product comprising only natural quarried material. A hold point remains until the validation consultant approves the material for importation or advises on the next steps. Review of the quarry's EPL. Material is to be inspected by the validation consultant upon importation to confirm it is free of anthropogenic materials, visible and olfactory indicators of contamination, and is consistent with documentation. Where check sampling occurs by the validation consultant due to deficiencies or irregularities in existing documentation, the following is required: - Date of sampling and description of material sampled; - An estimate of the volume of material imported at the time of sampling; - Sample location plan; and - Analytical reports and tabulated results with comparison to the VAC.

Should excavation of impacted fill/soil/bedrock be undertaken to facilitate the installation of a capping layer/system, validation of the resulting excavation is not required as the capping requirements apply.

7.2 Validation Assessment Criteria and Data Assessment

The VAC to be adopted for the validation assessment are outlined in the following table:

Table 7-2: VAC

Validation Aspect	Criteria
Waste classification	In accordance with the procedures and criteria outlined in the NSW EPA Waste Classification Guidelines 2014 and any other exemptions/approvals as required.
Validation of capping	Validation of capping will occur via a review of survey information, as-built drawings and via the inspection process. The validation report is to include cross-sections documenting the completed capping details for the various areas of the site.

Validation Aspect	Criteria
Soil validation	The VAC for soil validation are as follows: • Analytical results for contaminants of concern to be below the respective health investigation level (HIL) for a 'commercial/industrial' exposure scenario (HIL-D) presented in Schedule B1 of NEPM (2013); • Analytical results for contaminants of concern to be below the respective HSL-D criterion. The criteria for 'sand' type soils and a depth interval of 0m to <1m, as presented in Schedule B1 of NEPM (2013); • Analytical results for contaminants of concern to be below the respective ecological investigation levels (EILs) and ecological screening levels (ESLs) for an 'commercial/industrial' (URPOS) scenario as presented in Schedule B1 of NEPM 2013. The EILs for selected metals may be adjusted based on soil-specific parameters in accordance with Schedule B1 of NEPM 2013; • Analytical results for AF/FA in soil <0.001%w/w, based on the HSL-D criterion for soils presented in Schedule B1 (Table 7) of NEPM 2013; • Analytical results for ACM in soil <0.05%w/w, based on the HSL-D criterion for soils presented in Schedule B1 (Table 7) of NEPM 2013; and • No visible FCF at the site surface and/or within base of exposed excavations.
Imported materials	Material imported as general fill must only be VENM or ENM. VENM is defined in the POEO Act 1997 as material: • 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. ENM and recycled materials are to meet the criteria of the relevant exemption/order under which they are produced. Analytical results for VENM and other imported materials will need to be consistent with expectations for those materials. For VENM, it is expected that: - Heavy metal concentrations are to be less than the most conservative added contaminant limit (ACL) concentrations for an URPOS exposure setting presented in Schedule B1 of the NEPM (2013), except for lead which should nominally be less than 100mg/kg; and - Organic compounds are to be less than the laboratory PQLs and asbestos to be absent. All materials imported onto the site must also be adequately assessed as being appropriate for the final use of the site, including ecological considerations. A risk-based assessment approach is to be adopted with regards to the tier 1 screening criteria presented in Schedule B1 of NEPM (2013). Aesthetics: all imported materials are to be free of staining and odours.

Data should initially be assessed as above or below the VAC. Statistical analysis may be applied if deemed appropriate by the consultant and undertaken in accordance with the NEPM (2013) and the NSW EPA Sampling Design Guidelines (2022).

7.3 Validation SAQP

Appropriate QA/QC samples must be obtained during the validation (where applicable) and analysed for the same suite of contaminants as the primary samples (excluding asbestos). As a minimum, QA/QC sampling should include duplicates (5% inter-laboratory and 5% intra-laboratory), trip spikes and trip blanks. Rinsate samples must be obtained if re-usable sampling equipment is utilised.

Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs) must be clearly outlined and assessed as part of the validation process. A framework for the DQO and DQI process is outlined below and should be reflected in the validation report.

DQOs have been broadly established for the validation with regards to the seven-step process outlined in the NEPM (2013). The seven steps include the following which are detailed further in the following subsections:

- State the problem;
- Identify the decisions/goal of the study;
- Identify information inputs;
- Define the study boundary;
- Develop the analytical approach/decision rule;
- Specify the performance/acceptance criteria; and
- Optimise the design for obtaining the data.

DQIs are to be assessed based on field and laboratory considerations for precision, accuracy, representativeness, completeness and comparability.

7.3.1 Step 1 - State the Problem

Validation data is required to demonstrate that the remediation is successful and that the site is suitable for the proposed development described in Section 1.1.

7.3.2 Step 2 - Identify the Decisions of the Study

The remediation goal, aims and objectives are defined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- Was the remediation undertaken in accordance with the RAP and RWP?
- If there were any deviations, what were these and how do they impact the outcome of the validation?
- Are any of the validation results above/outside of the VAC?
- Is the site suitable for the proposed development from a contamination viewpoint?

7.3.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Existing relevant data from previous reports;
- DGI reults;
- Site-specific human health and/or ecological risk assessment (where required);

- Details included in the final RAP;
- Site information, including site observations, inspections, waste and imported materials registers, and surveys;
- Validation sampling and analysis;
- Field and laboratory QA/QC data; and
- Records relating to unexpected finds (where applicable).

7.3.4 Step 4 - Define the Study Boundary

The remediation and validation will be confined to the site boundaries as shown in Figure 2 in appendix A. The DGI and validation processes will ultimately inform the extent of remediation. Notwithstanding, remediation is largely expected to be contained to the fill, with possible localised deeper (fill/natural soil/bedrock) remediation required (such as in the vicinity of USTs and associated infrastructure).

7.3.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

7.3.5.1 VAC

The validation data will be collected and assessed in accordance with Sections 7.1 and 7.2. The following decision rules will apply:

- If all concentrations of the contaminants of concern are below the VAC, then the data will be compared directly to the VAC without statistical analysis;
- If the concentration of a contaminant of concern exceeds the VAC (except for asbestos), then statistical analysis may be undertaken if considered appropriate to do so by the validation consultant. This will include calculation of the 95% upper confidence limit (UCL) value for the data set, with regards to the NEPM (2013) framework and other relevant guidelines made under the CLM Act 1997. The UCL will be considered acceptable where the UCL is below the VAC, the standard deviation of the data is less than 50% of the VAC and none of the individual concentrations are more than 250% of the VAC;
- Asbestos data will be assessed directly against the VAC. Statistical analysis is not proposed for asbestos data; and
- Capping data (inspection records, survey height comparisons) will be compared directly to the capping specification to confirm compliance.

7.3.5.2 Field and Laboratory QA/QC

Appropriate QA/QC samples must be obtained during the validation (where applicable) and analysed for the contaminants of concern. As a minimum, QA/QC sampling must include duplicates (5% inter-laboratory and 5% intra-laboratory (with the exception of asbestos)), and one trip blank, one trip spike and one rinsate sample per batch.

DQIs for field and laboratory QA/QC samples are defined below:

Field Duplicates

Acceptable targets for precision of field duplicates will be 30% or less, consistent with NEPM (2013). Relative percentage difference (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.

Trip Blanks, Trip Spikes and Rinsates

Acceptable targets for trip blank and rinsate samples will be less than the PQL for organic analytes. Metals will be considered on a case-by-case basis with regards to the reference material used as the blank medium.

Acceptable targets for the trip spike samples will be 70-130% recovery.

Laboratory QA/QC

The suitability of the laboratory data will be assessed against the laboratory QA/QC criteria. These criteria are 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 typical limits 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; and
- 60-140% recovery acceptable for organics.

Surrogate Spikes

- 60-140% recovery acceptable for general organics.

Method Blanks

- All results less than PQL.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence will be reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is to be undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, the validation consultant is to adopt the most conservative concentration reported.

7.3.5.3 Appropriateness of PQLs

The PQLs of the analytical methods are to be considered in relation to the VAC to confirm that the PQLs are less than the VAC. In cases where the PQLs are greater than the VAC, a discussion of this is to be provided.

7.3.6 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 to be 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 the validation assessment, the null hypothesis (H_0) is that the 95% UCL for the contaminant of concern is greater than the VAC. The alternative hypothesis (H_A) is that the 95% UCL for the contaminant of concern is less than the VAC.

Potential outcomes include Type I and Type II errors as follows:

- Type I error of determining that the soil is acceptable for the proposed land use when it is not (wrongly rejects true H_0), includes an alpha (α) risk of 0.05; and
- Type II error of determining that the soil is unacceptable for the proposed land use when it is (wrongly accepts false H_0), includes beta (β) risk of 0.2.

Notwithstanding the above, it is unlikely that UCLs will be applied for this project as the data will largely not be probabilistic, statistical analysis of asbestos impacts is considered to be inappropriate, and sampling/analysis of imported materials will not likely occur on enough samples from one source to facilitate statistical analysis. On this basis, the quantitative limits on decision errors are unlikely to be applied and the individual data points will simply be compared directly to the VAC.

7.3.7 Step 7 - Optimise the Design for Obtaining Data

The design is to be optimised via the collection of validation data to demonstrate the success of the key aspects of the remediation.

7.3.8 Validation Report and Long-Term EMP

As part of the site validation process, a validation report will be prepared by the validation consultant. The report will present the results of the validation assessment and will be prepared in accordance with the Consultants Reporting Guidelines. If a Site Auditor is engaged, the validation report is to be issued in draft format initially and submitted to the Site Auditor for review. Any comments from the Site Auditor are to be addressed in finalising the report.

It should also be noted that any material changes to the remediation or validation strategy will require an addendum or revision of the RAP (or a Remediation Work Plan – RWP), which in turn must be approved by the client, the consent authority (where applicable) and the Site Auditor (if engaged).

A long-term EMP will be required to manage any capped/contained material at the site and the long-term EMP will be documented as part of the overall validation process. Public notification and enforcement mechanisms for the long-term EMP are to be arranged and the consent authority, local council, and the Site Auditor (if engaged) are to be provided with a draft copy of the long-term EMP for consultation prior to finalisation of the document.

The notification and enforcement mechanisms are to include notation on the planning certificate under Section 10.7 of the Environmental Planning and Assessment Act (1979) and a covenant registered on the title to land under Section 88B of the Conveyancing Act (1919).

8 CONTINGENCY PLAN

A review of the proposed remediation works has indicated that the greatest risks that may affect the success of the remediation include identification of unexpected finds. Contingency plans to address these risks are outlined below, in conjunction with a selection of other contingencies that may apply to this project.

8.1 Unexpected Finds

Residual hazards that may exist at the site would generally be expected to be detectable through visual or olfactory means. The procedure to be followed in the event of an unexpected find is presented below:

- In the event of an unexpected find, all work in the immediate vicinity should cease and the remediation contractor must contact the validation consultant, the client and the project manager;
- Temporary barricades should be erected to isolate the area from access to workers;
- The validation consultant is to attend the site, assess what is required to characterise the contamination, develop a suitable plan to facilitate this, and advise the client, the project manager and the Site Auditor (if engaged) of these anticipated requirements. The Site Auditor (if engaged) is to provide any comments accordingly;
- The validation consultant is then to adequately characterise the contamination and provide advice in relation to site management and remediation. In the event that remediation differs from the procedures outlined in the RAP/RWP, an addendum procedure must be prepared in consultation with the project stakeholders. Planning advice must be sought regarding whether there is a need for any additional consent, modification of the consent, or approvals prior to carrying out additional remediation; and
- Contamination should be remediated and validated in accordance with the advice provided, and the results must be included in the site validation report.

This process is summarised in a flow chart attached in Appendix F.

8.2 Importation Failure for Imported Materials

Where material to be imported onto the site does not meet the importation VAC detailed in Section 7, the only option is to not accept the material. Alternative material must be sourced that meets the importation requirements.

8.3 Contingency for Failure of Remediation Strategy

In the event of a soil validation failure when validating fill removal, the client should be advised then the excavation should be extended in the direction of the failure (in consultation with the validation consultant, client and other relevant stakeholders) and the area re-validated. Alternatively, where applicable and able to be accommodated within the development, the cap and contain remedial approach outlined in the RAP may be adopted.

A site-specific human health and/or ecological risk assessment (as required) could also be considered to establish whether the risks warrant further remediation and/or long-term management, and inform alternative remediation strategies as necessary. Any alternative remediation strategy must be documented in an RWP and approved by the client, appointed site auditor (if engaged) and the relevant consent authority.

9 SITE MANAGEMENT PLAN FOR REMEDIATION WORKS

The information outlined in this section of the RAP is for the remediation work only. The client should make reference to the City of Ryde Council's Contaminated Land Policy[20] (as appropriate) and the development consent for specific site management requirements for the overall development of the site.

9.1 Asbestos Management Plan

An AMP must be prepared prior to the commencement of remediation work and must be implemented during remediation.

9.2 Interim Site Management

All observed fragments of ACM within fill soils (within the sampling locations) were removed from the site by JKE during the investigations. However, it is noted that additional asbestos-related finds were considered likely to occur. The site is operational and interim management of the site for the potential occurrence of asbestos is required. An interim AMP for ongoing and normal use of the site must be prepared and implemented as previously recommended by JKE, until the commencement of remediation.

9.3 Project Contacts

Emergency procedures and contact telephone numbers should be displayed in a prominent position at the site entrance gate and within the main site working areas. The contact details of key project personnel (at the time of preparing this RAP) are summarised in the following table:

Table 9-1: Project Contacts

Role	Company	Contact Details
Project Manager	Multiplex	Ben.Wilson@multiplex.global
Remediation Contractor	To be appointed	-
Validation Consultant	To be appointed	-
Certifier	To be appointed	-
NSW EPA	Pollution Line	131 555
Emergency Services	Ambulance, Police, Fire	000

[20] City of Ryde Council, (2021). *Contaminated Land Policy*

9.4 Security

Prior to the commencement of site works, fencing should be installed as required to secure the remediation areas. Warning signs should be erected, which outline the PPE required for remediation work.

9.5 Timing and Sequencing of Remediation Works

The anticipated sequence of remediation works is outlined in Section 6. The buildings and structures at the site will need to be demolished to allow site access for the data gap investigation and for remediation works to occur. Remediation will occur concurrently with the development works as the built form of the development (e.g. buildings, landscaping etc) may form part of the remediation approach.

9.6 Site Soil and Water Management Plan

The remediation contractor should prepare a detailed soil and water management plan prior to the commencement of site works and this should consider the requirements of the AMP. Silt fences should be used to control the surface water runoff at all appropriate locations of the site and appropriate measures are to be implemented to manage soil/water disturbance. Reference should be made to the consent conditions for further details.

All stockpiled materials should be placed within an erosion containment boundary with silt fences and sandbags employed to limit sediment movement. The containment area should be located away from drainage lines/low-points, gutters, stormwater pits and inlets and the site boundary. No liquid waste or runoff should be discharged to the stormwater or sewerage system without the approval of the appropriate authorities.

No stockpiles of soil or other materials shall be placed on footpaths without prior written approval of the City of Ryde Council.

Vehicle access to the site must be stabilised to prevent the tracking of sediment onto roads and footpath. Soil, earth, mud or similar must be removed from the roadway by sweeping, shovelling, or a means other than washing, on a daily basis or as required. Soil washings from wheels shall be collected and disposed of in a manner that does not pollute waters.

9.7 Noise and Vibration Control Plan

The guidelines for minimisation of noise on construction sites outlined in AS-2460 (2002)[21] should be adopted. JKE note that the City of Ryde (2021) *Contaminated Land Policy* specifies various acceptable noise levels (L10 level), ranging from 5dB(A) to 20dB(A) above background levels, based on the duration of the construction period. Reference should be made to the Contaminated Land Policy (as appropriate) and the specific development consent conditions in this regard.

[21] Australian Standard, (2002). *AS2460: Acoustics - Measurement of the Reverberation Time in Rooms.*

All practicable measures should be taken to reduce the generation of noise and vibration to within acceptable limits. In the event that short-term noisy operations are necessary, and where these are likely to affect residences, notifications should be provided to the relevant authorities and the residents by the project manager, specifying the expected duration of the noisy works (or otherwise in accordance with the development consent conditions).

9.8 Dust Control Plan

All practicable measures should be taken to reduce dust emanating from the site. Factors that contribute to dust production are:

- Wind over a cleared surface;
- Wind over stockpiled material; and
- Movement of machinery in unpaved areas.

Visible dust should not be present at the site boundaries. Measures to minimise the potential for dust generation include:

- Use of water sprays on unsealed or exposed soil surfaces;
- Covering of stockpiled materials and excavation faces (particularly during periods of site inactivity and/or during windy conditions) or alternatively the erection of hessian fences around stockpiled soil or large exposed areas of soil;
- Establishment of dust screens consisting of a 2m high shade cloth or similar material secured to a chain wire fence;
- Maintenance of dust control measures to keep the facilities in good operating condition;
- Concrete surfaces brushed or washed to remove dust;
- Stopping work during strong winds;
- Loading or unloading of dry soil as close as possible to stockpiles to prevent spreading of loose material around the site; and
- The expanse of cleared land should be kept to a minimum to achieve a clean and economical working environment.

If stockpiles are to remain on-site or soil remains exposed for a period of longer than several days, dust monitoring should be undertaken at the site. If excessive dust is generated all site activities should cease until either wind conditions are more acceptable or a revised method of excavation/remediation is developed.

Dust is also produced during the transfer of material to and from the site. All material should be covered during transport and should be properly disposed of on delivery. No material is to be left in an exposed, un-monitored condition.

All equipment and machinery should be brushed or washed down before leaving the site to limit dust and sediment movement off-site. In the event of prolonged rain and lack of paved areas all vehicles should be washed down prior to exit from the site, and any soil or dirt on the wheels of the vehicles removed. Water used to clean the vehicles should be collected and tested prior to appropriate disposal under the relevant waste classification guidelines.

Reference must also be made to the AMP in this regard.

9.9 Air Monitoring

Reference is to be made to the AMP for details regarding asbestos air fibre monitoring. Air monitoring must only be carried out by personnel registered and accredited by NATA. Filter analysis must only be carried out within a NATA certified laboratory. The monitoring results must conform to the requirements of the National Occupational Health and Safety Commission (NOHSC) Guidance note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003 (2005)][22].

The monitoring program will be used to assess whether the control procedures being applied are satisfactory and that criteria for airborne asbestos fibre levels are not being exceeded. The following levels will be used as action criteria during the air monitoring:

- <0.01 Fibres/ml: Work procedures deemed to be successful;
- 0.01 to 0.02 Fibres/ml: Inspection of the site and review of procedures; and
- >0.02 Fibres/ml: Stop work, inspection of the site, review of procedures, clean-up, rectification works where required and notify the relevant regulator.

9.10 Odour Control Plan

All activities undertaken at the site should be completed in a manner that minimises emissions of smoke, fumes and vapour into the atmosphere and any odours arising from the works or stockpiled material should be controlled. Control measures may include:

- Maintenance of construction equipment so that exhaust emissions comply with the Clean Air Regulations issued under the POEO Act 1997;
- Demolition materials and other combustible waste should not be burnt on site;
- The spraying of a suitable proprietary product to suppress any odours that may be generated by excavated materials; and
- Use of protective covers (e.g. builder's plastic).

All practicable measures should be taken to reduce fugitive emissions emanating from the site so that associated odours do not constitute a nuisance and that the ambient air quality is not adversely impacted.

The following odour management plan should be implemented to limit the exposure of site personnel and surrounding residents to unpleasant odours:

- Excavation and stockpiling of material should be scheduled during periods with low winds if possible;
- A suitable proprietary product could be sprayed on material during excavation and following stockpiling to reduce odours (subject to an appropriate assessment of the product by the validation consultant);

[22] National Occupational Health and Safety Commission, (2005). *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres. 2nd Edition [NOHSC:3003(2005)]*

- All complaints from workers and neighbours should be logged and a response provided. Work should be rescheduled as necessary to minimise odour problems;
- The site foreman should consider the following odour control measures as outlined in NEPM:
  - reduce the exposed surface of the odorous materials;
  - time excavation activities to reduce off-site nuisance (particularly during strong winds); and
  - cover exposed excavation faces overnight or during periods of low excavation activity.
- If continued complaints are received, alternative odour management strategies should be considered and implemented.

Reference is also to be made to the AMP in this regard.

9.11 Dewatering

Temporary dewatering is not expected to be required in the context of the proposed remediation works.

However, dewatering will likely be required for construction (based on the expected excavation for the building) and WaterNSW must be contacted to provide additional details regarding the approval process. Groundwater/seepage water must not be pumped to stormwater or sewer unless a prior application is made and this is approved by the relevant authorities. The groundwater will require some level of treatment prior to discharge. Or alternatively, pumped groundwater would need to be stored appropriately then removed by a liquid waste contractor.

9.12 Health and Safety Plan

A site specific WHS plan should be prepared by the contractor for all work to be undertaken at the site. The WHS plan should meet all the requirements outlined in SafeWork NSW WHS regulations.

As a minimum requirement, personnel must wear appropriate protective clothing, including long sleeve shirts, dust masks/respirators, long trousers, steel cap boots and hard hats. Additional asbestos-related PPE will be required for asbestos-related works and this will be specified in the AMP. Washroom and lunchroom facilities should also be provided to allow workers to remove potential contamination from their hands and clothing prior to eating or drinking.

9.13 Waste Management

Prior to commencement of remedial works and excavation for the proposed development, the remediation contractor should develop a waste management or recycling plan to minimise the amount of waste produced by the site. This should, as a minimum, include measures to recycle and re-use natural excavated material wherever possible. Waste tracking is to occur as outlined previously in this RAP.

9.14 Incident Management Contingency

The validation consultant should be contacted if any unexpected contamination-related conditions are encountered at the site. This should enable the scope of remedial/validation works to be adjusted as required. Similarly, if any incident occurs on site, the validation consultant should be advised to assess potential impacts on contamination conditions and provide advise as necessary.

9.15 Hours of Operation

Based on our experience on projects within the Ryde Local Government Area, council adopts a policy whereby all remediation work must be carried out only between the hours of 07:00 and 18:00 Monday to Friday inclusive, and 08:00 and 13:00 on Saturdays. No work is permitted on Sundays or Public Holidays. Reference must be made to the development consent conditions for the final details in regards to the hours of operation.

9.16 Community Consultation and Complaints

The remediation contractor should provide details for managing community consultation and complaints within their Construction Environmental Management Plan (CEMP).

10 CONCLUSION

The previous investigations identified redundant USTs and fill soils impacted by asbestos (bonded/non-friable asbestos and friable asbestos) at concentrations which trigger a need for remediation. The investigations also identified the potential for localised impacts to be encountered in the vicinity of the USTs and associated infrastructure, and that these may pose risk to receptors. Further investigation is also required to address the identified data gaps outlined in Section 3.1.3 of this RAP. Remediation is considered necessary to address the potential human health risks associated with site contamination. The USTs and infrastructure will be removed during the remediation process and the residual risks assessed by the validation process.

The previous investigations also identified elevated concentrations of heavy metals and low pH levels in the groundwater. The heavy metal concentrations and low pH levels were considered likely to be regional issues and were assessed to not pose an unacceptable risk to receptors in the context of the proposed development. Remediation of groundwater is not considered to be required for the proposed development.

Based on the above, additional investigation of soil was recommended to confirm the results and validate the assumptions made for the Tier 1 risk assessment. This RAP includes a detailed procedure for completing a DGI and undertaking any necessary reporting that is triggered as part of that process. This must occur following demolition and prior to the construction of the development as there is a potential that additional remediation may be necessary depending on the DGI results.

The RAP outlines the requirements for remediation of the UST areas by removing the tanks and any associated infrastructure, and excavation of any localised contaminated soil. The proposed soil remediation strategies for the impacted fill across the site involves excavation and off-site disposal of contaminated fill, and off-site disposal of surficial ACM. Capping of contaminated fill is proposed where excavation and off-site disposal of contaminated fill is not feasible to be undertaken, such as within TPZs. The extent of remediation is to be confirmed in the finalised RAP.

The remediation methods outlined in the RAP are appropriate for the contaminants encountered and are technically achievable to implement concurrently with the proposed development works. On this basis, JKE is of the opinion that the site can be made suitable for the proposed development via remediation, provided this RAP (once finalised) and any associated documentation (e.g. AMP, RWP etc) are implemented.

A site validation report is to be prepared on completion of remediation activities and submitted to the consent authority to demonstrate that the site (or a particular development stage) is suitable for the proposed development. A long-term EMP will also be required as part of the validation documentation process to outline the long-term management approach and requirements, in the event that contaminated material remains on-site.

The RAP has met the objectives outlined in Section 1.2.

10.1 Regulatory Requirements

The regulatory requirements applicable for the site are outlined in the following table:

Table 10-1: Regulatory Requirement

Guideline / Legislation / Policy	Applicability
SEPP Resilience and Hazards 2021	The remediation category should be confirmed by the client's planning team. Under Section 4.14 of SEPP Resilience and Hazards 2021, a notice of completion of remediation work is to be given to council within 30 days of completion of the work regardless of whether the remediation is classed as Category 1 or Category 2 remediation work. The notice of completion of remediation works must be in accordance with Section 4.15 of SEPP Resilience and Hazards 2021.
Duty to Report Contamination (2015)[23]	At this stage, JKE consider that there is no requirement to notify the NSW EPA of the site contamination. This requirement should be reassessed following review of the validation results.
POEO Act 1997	Section 143 of the POEO Act 1997 states that if waste is transported to a place that cannot lawfully be used as a waste facility for that waste, then the transporter and owner of the waste are each guilty of an offence. The transporter and owner of the waste have a duty to ensure that the waste is disposed of in an appropriate manner. Appropriate waste tracking is required for all waste that is disposed off-site. Activities should be carried out in a manner which does not result in the pollution of waters.
POEO (Waste) Regulation 2014	Part 7 of the POEO Waste Regulation 2014 set outs the requirements for the transportation and management of asbestos waste and Clause 79 of the POEO Waste Regulation requires waste transporters to provide information to the NSW EPA regarding the movement of any load in NSW of more than 10 square meters of asbestos sheeting, or 100 kilograms of asbestos waste. To fulfil these legal obligations, asbestos waste transporters must use the NSW EPA-endorsed waste tracking system. Clause 78 of the POEO Waste Regulation requires that a person who transport asbestos waste must ensure that: • Any part of any vehicle in which the person transports the waste is covered, and leak-proof, during the transportation; and • If the waste consists of bonded asbestos material—it is securely packaged during the transportation; and • If the waste consists of friable asbestos material—it is kept in a sealed container during transportation; and • If the waste consists of asbestos-contaminated soils—it is wetted down. Asbestos waste in any form cannot be re-used or recycled.
SafeWork NSW Code of Practice: How to manage and control asbestos in the workplace (2022)	Sites with asbestos become a 'workplace' when work is carried out there and require a register and AMP. Appropriate SafeWork NSW notification will be required for asbestos removal works or handling. Contractors are also required to be appropriately licensed for the asbestos works undertaken (i.e. Class A licence for friable asbestos work, or Class B for non-friable asbestos work).

[23] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under the Contamination Land Management Act 1997.* (referred to as Duty to Report Contamination 2015)

Guideline / Legislation / Policy	Applicability
Environmental Planning and Assessment Regulation 2021[24]	Schedule 3 relates to designated development. Clause 20(3) relates to contaminated soil treatment of materials originating on site and includes thresholds of treatment/storage of greater than 30,000m^3 of contaminated soil, or disturbance of more than an aggregate area of 3 hectares of contaminated soil. Based on the data currently available at the time of preparing this RAP, these thresholds are not expected to be met and so the proposed remediation of contaminated soil is not considered to be designated development in this context. Contaminated soil treatment works means works for on-site or off-site treatment of contaminated soil and includes works that incinerate or store contaminated soil but does not include works that excavate contaminated soil for treatment at another site. Storage includes capping/containing contaminated soils.

[24]NSW Government, (2021). *Environmental Planning and Assessment Regulation 2021.* (referred to as EP&A Regulation 2021)

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 assessment. If the subject site is sold, ownership of the assessment report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the assessment was undertaken. No person should apply an assessment 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 assessment 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 assessments 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 assessment 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.

Assessment Limitations
Although information provided by a site assessment can reduce exposure to the risk of the presence of contamination, no environmental site assessment can eliminate the risk. Even a rigorous professional assessment 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 Assessments by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an assessment 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 Assessment Report

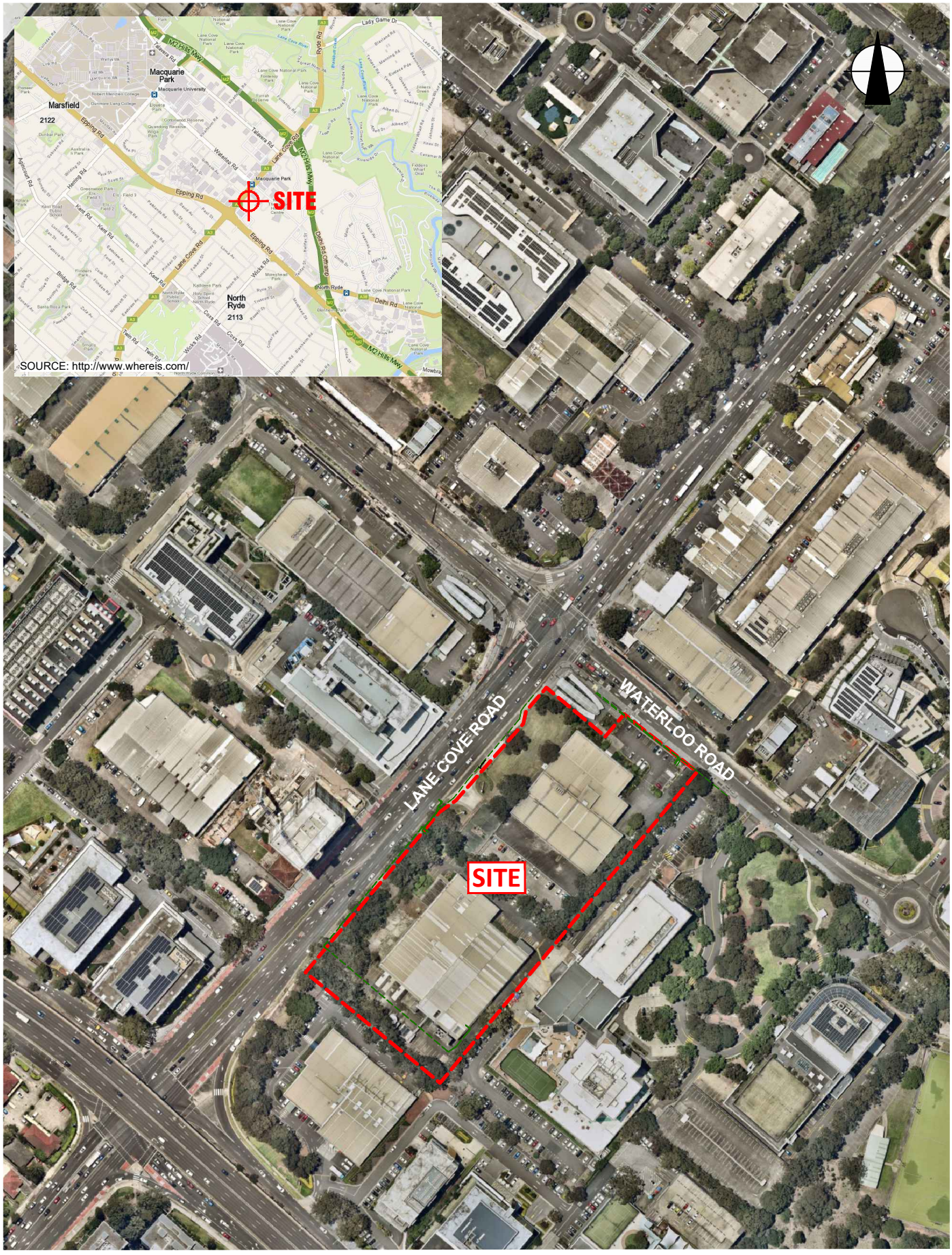
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other 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 assessment. 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 assessment. 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 assessment 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 assessment 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 assessment, 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



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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

Title: **SITE LOCATION PLAN**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

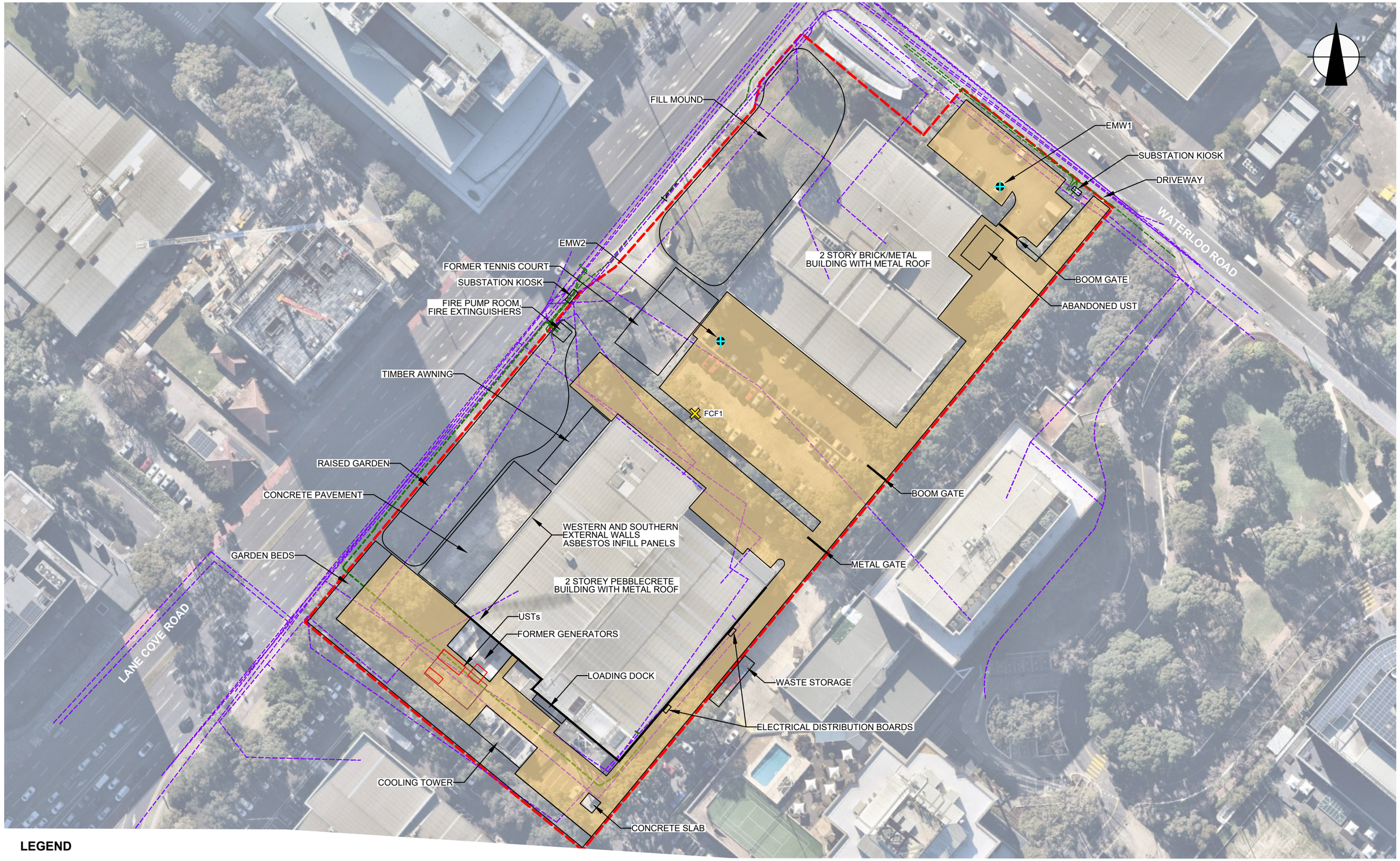
Project No: E36466PR

Figure No: 1

JKEnvironments

PLOT DATE: 22/11/2024 11:55:08 AM DWG FILE: K:\5C EIS JOBS\36000'S\E36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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LEGEND

- APPROXIMATE SITE BOUNDARY
- CONCRETE AND ASPHALT HARDSTANDS
- EXISTING MONITORING WELL LOCATION
- FCF(Surface) — FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
- APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
- APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

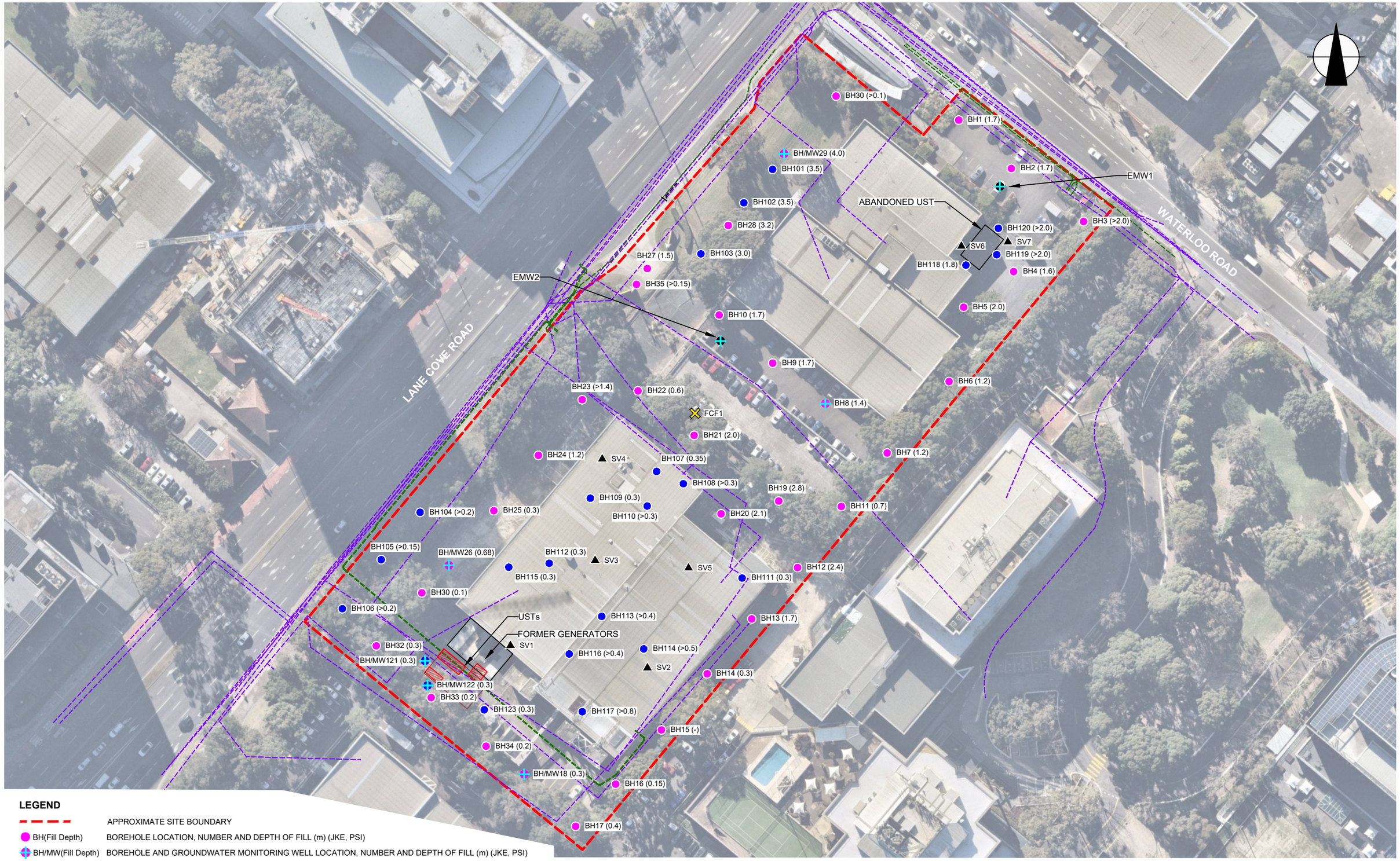
Project No: E36466PR

Figure No: 2

JKEnvironments

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LEGEND

APPROXIMATE SITE BOUNDARY	
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
FCF(Surface)	FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
	EXISTING MONITORING WELL LOCATION
	APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
	APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES
BH101	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
	SOIL VAPOR PIN LOCATION AND NUMBER

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

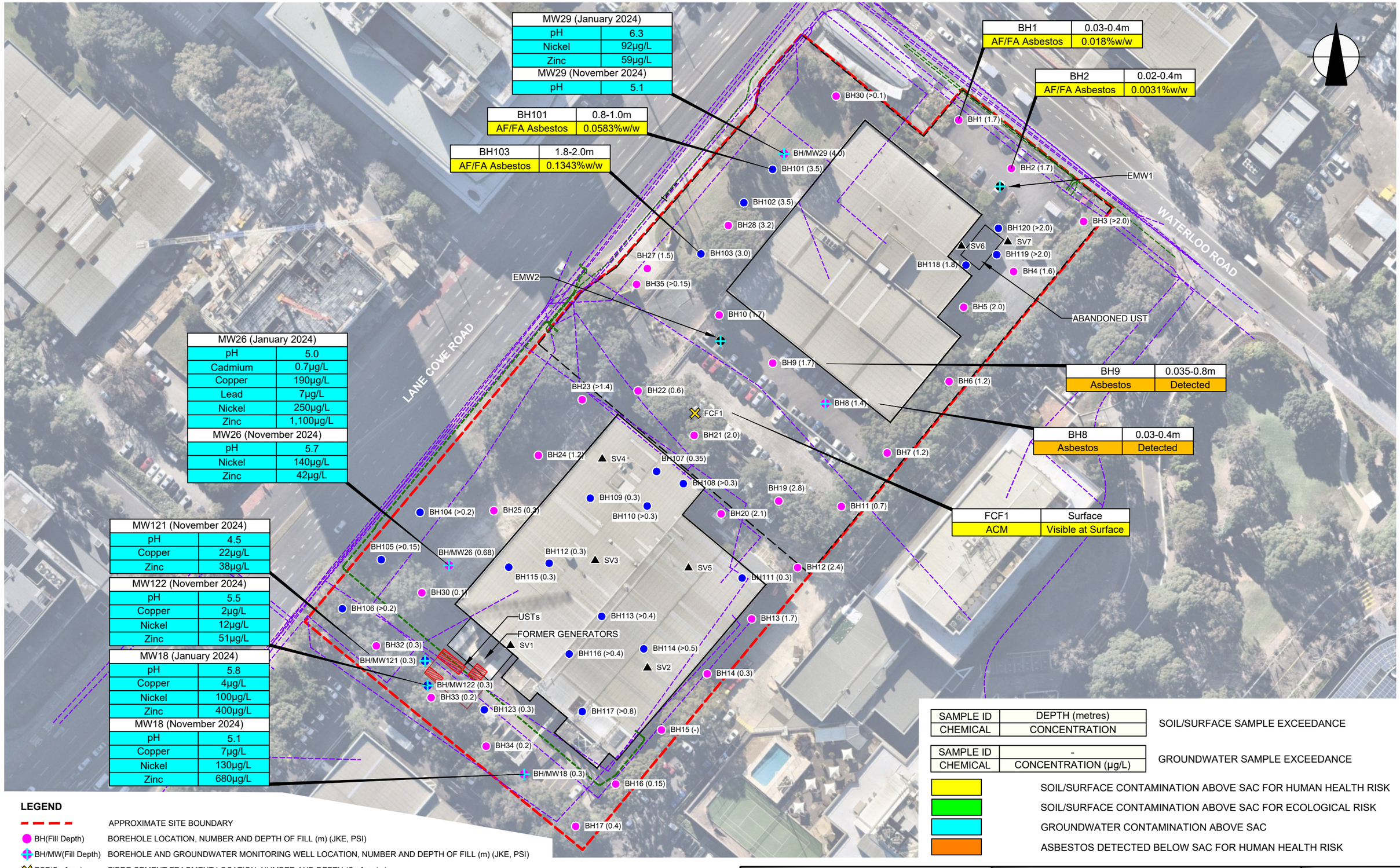
Project No: E36466PR

Figure No: 3

JKEnvironments

PLOT DATE: 24/12/2024 1:47:09 PM DWG FILE: K:\5C EIS JOBS\36000\SIE36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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LEGEND

- APPROXIMATE SITE BOUNDARY
- BH(Fill Depth) — BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
- BH/MW(Fill Depth) — BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
- FCF(Surface) — FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
- EXISTING MONITORING WELL LOCATION
- APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
- APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES
- BH101 — BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
- BH/MW(Fill Depth) — BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
- SOIL VAPOR PIN LOCATION AND NUMBER

SAMPLE ID	DEPTH (metres)
CHEMICAL	CONCENTRATION

SOIL/SURFACE SAMPLE EXCEEDANCE

SAMPLE ID	-
CHEMICAL	CONCENTRATION (µg/L)

GROUNDWATER SAMPLE EXCEEDANCE

- SOIL/SURFACE CONTAMINATION ABOVE SAC FOR HUMAN HEALTH RISK
- SOIL/SURFACE CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK
- GROUNDWATER CONTAMINATION ABOVE SAC
- ASBESTOS DETECTED BELOW SAC FOR HUMAN HEALTH RISK

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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

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

Title: **SAC EXCEEDANCE PLAN**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

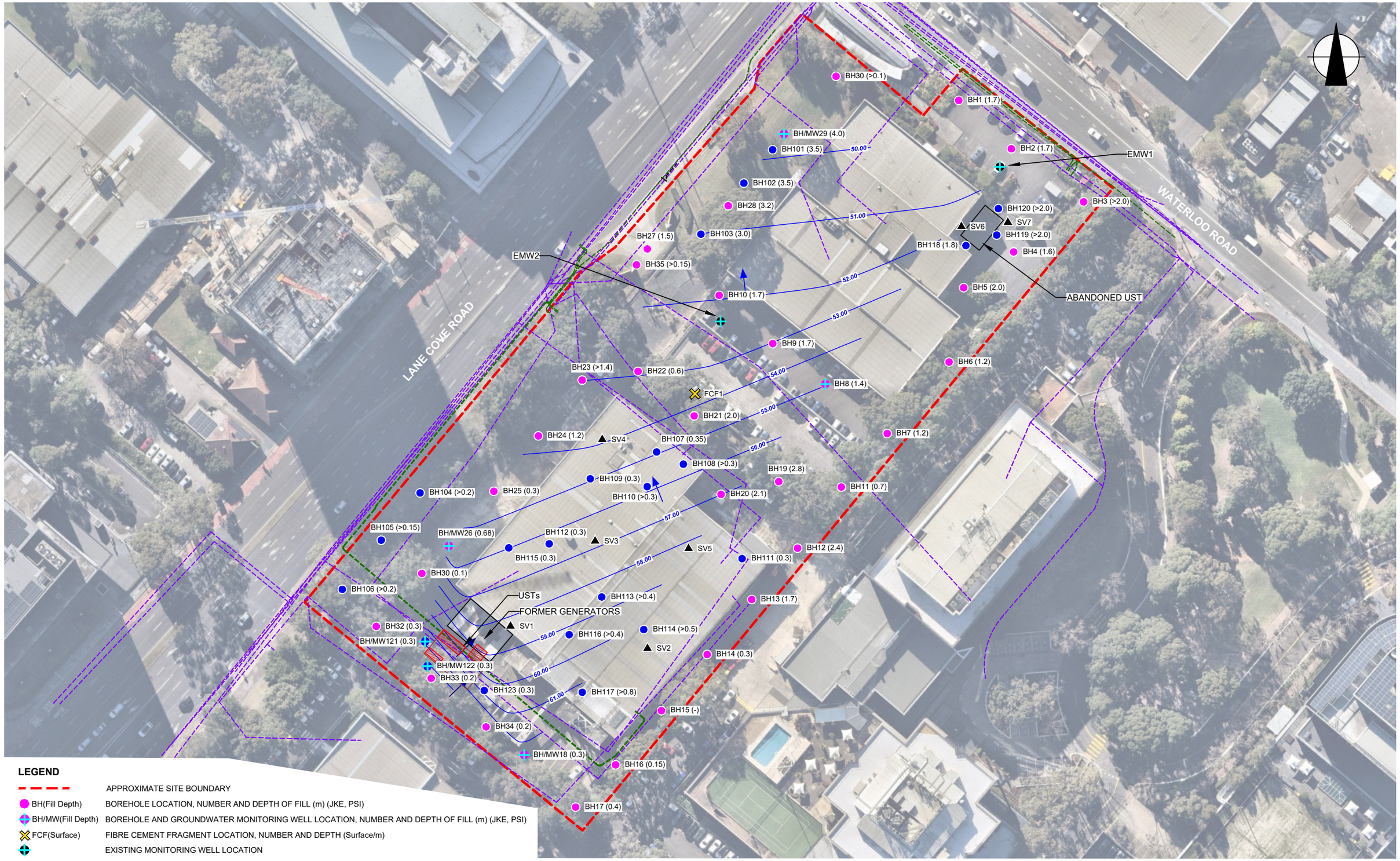
Project No: E36466PR

Figure No: 4

JKEnvironments

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LEGEND

APPROXIMATE SITE BOUNDARY	
BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m) (JKE, PSI)
FCF(Surface)	FIBRE CEMENT FRAGMENT LOCATION, NUMBER AND DEPTH (Surface/m)
	EXISTING MONITORING WELL LOCATION
	APPROXIMATE ALIGNMENT OF FIBRE OPTICS/COMMUNICATION LINES
	APPROXIMATE ALIGNMENT OF AUSGRID POWER CABLES
BH101	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
	SOIL VAPOR PIN LOCATION AND NUMBER
54.00	GROUNDWATER CONTOUR INTERVALS (m)
	INFERRED GROUNDWATER FLOW DIRECTION

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

0 10 20 30 40 50

SCALE 1:1000 @A3 METRES

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

Title: **GROUNDWATER CONTOUR PLOT**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

Figure No: 5

JKEnvironments

PLOT DATE: 22/11/2024 1:00:21 PM DWG FILE: K:\5C EIS JOBS\36000'S\E36466PR MACQUARIE PARK\CAD\E36466PR.DWG

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LEGEND

- APPROXIMATE SITE BOUNDARY
- 201 PROPOSED ADDITIONAL SAMPLING LOCATION AND NUMBER
- TREE PROTECTION ZONE (TPZ)

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

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

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

Title: **INDICATIVE DGI LOCATION PLAN**

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Project No: E36466PR

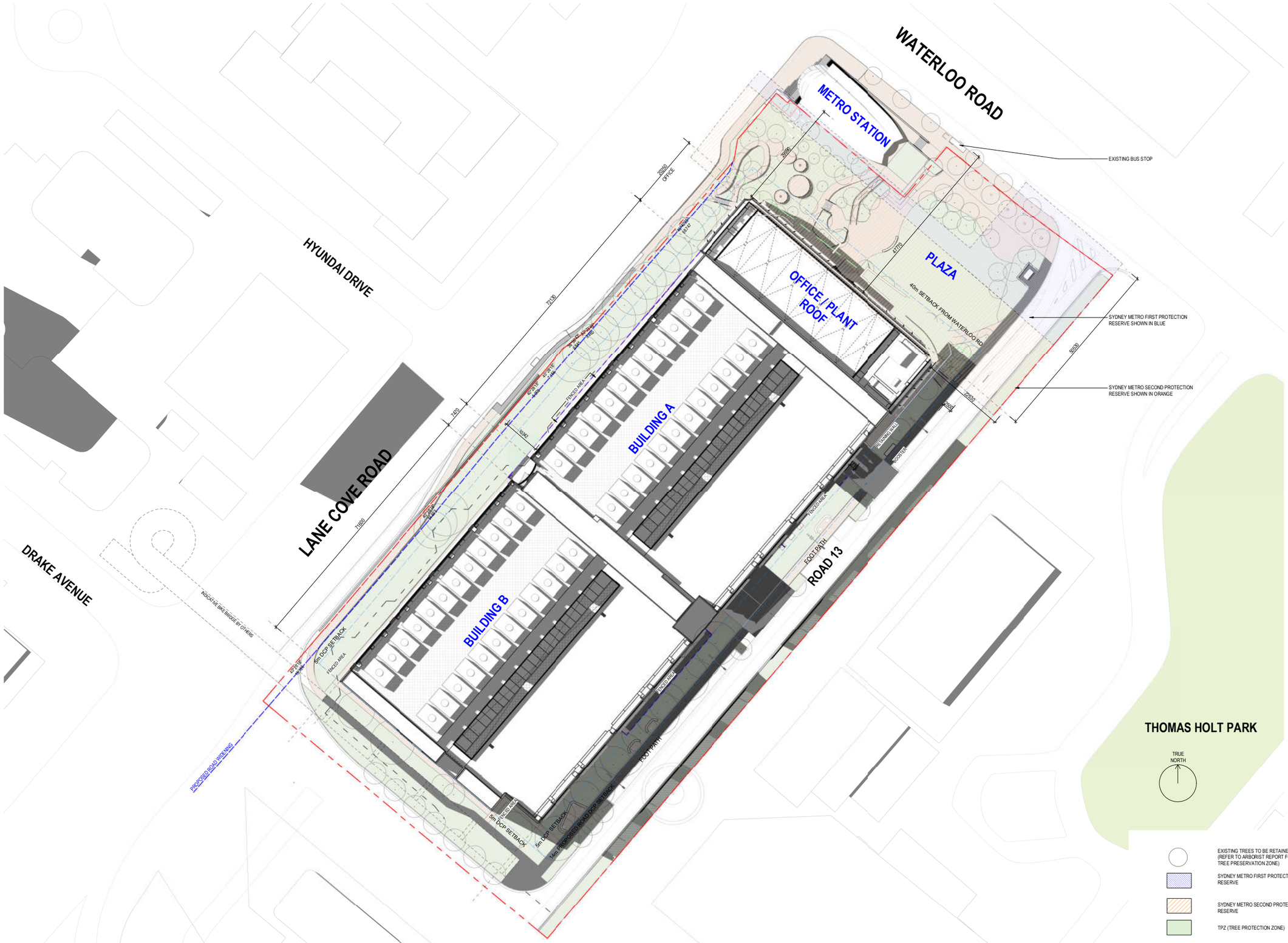
Figure No: 6

JKEnvironments

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Appendix B: Selected Development Plans



1 **PROPOSED SITE PLAN**
1 : 500

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND
- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
GPO Box 3219
Brisbane QLD 4001
T: +61 7 3177 4777

PROJECT ARCHITECT

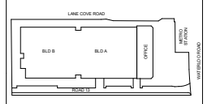
Level 24, 25 Martin Place, Sydney NSW, 2000
+61 2 9966 2666 | hdrinc.com
HDR Pty. Limited ABN 76 158 075 220 trading as HDR

NOMINATED ARCHITECTS
NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC Cate Cowlishaw 15211
ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
QLD Cate Cowlishaw 6139

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Document Author Project Number
10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
PROPOSED SITE PLAN

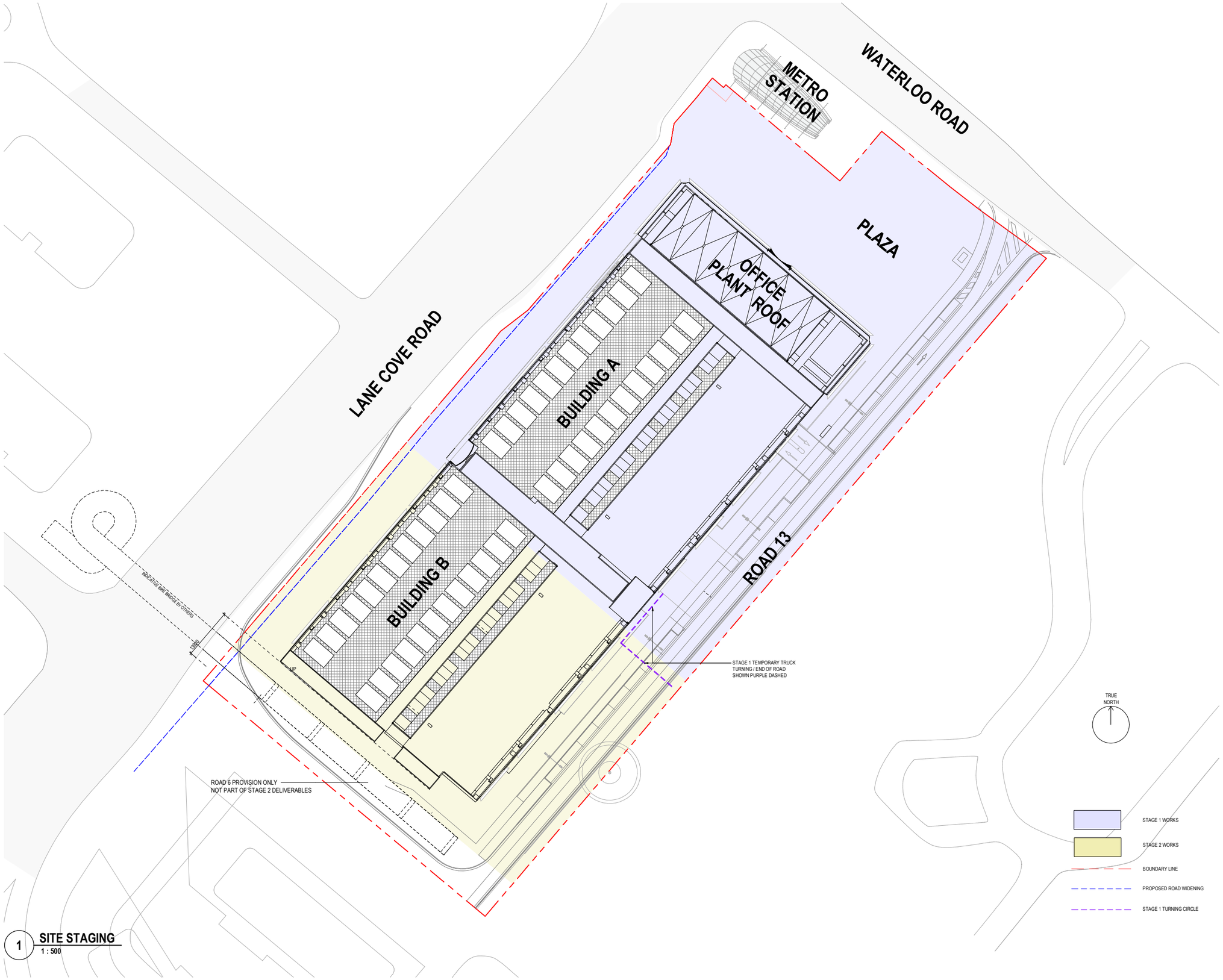
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CHK	Date
AW	26/08/25

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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-0064	CP03

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1 **SITE STAGING**
1 : 500

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
GPO Box 3219
Brisbane QLD 4001
T: +61 7 3177 4777

PROJECT ARCHITECT

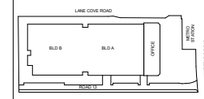
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ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
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Document Author Project Number
10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
SITE STAGING PLAN

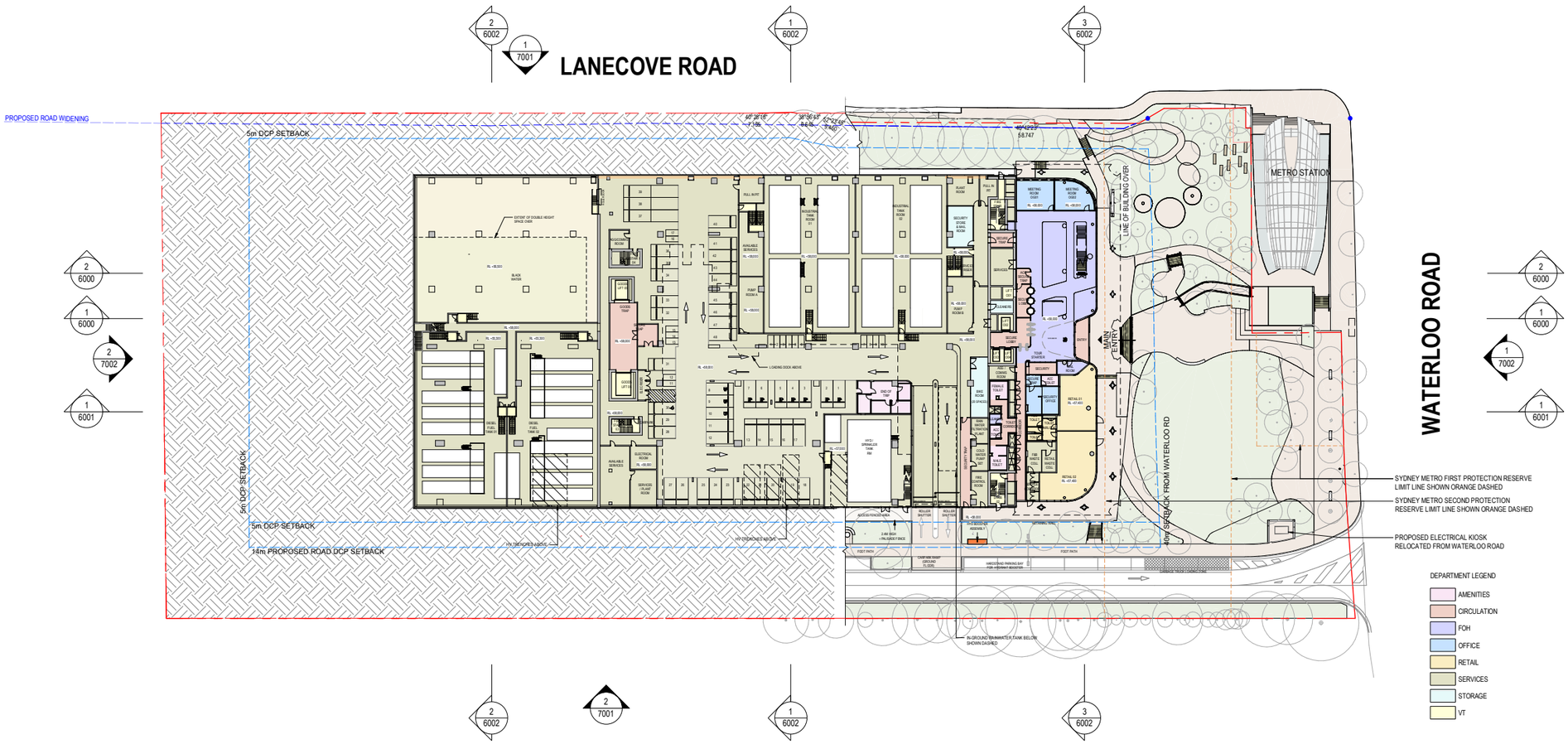
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AW	26/08/25

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DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- FOH
- OFFICE
- RETAIL
- SERVICES
- STORAGE
- VT

TREE LEGEND:

- PROPOSED TREE
- EXISTING TREE

OUTDATED LANDSCAPE MODEL

LANDSCAPE SHOWN IS FROM PREVIOUS CONSULTANT MODEL AND IS INDICATIVE ONLY. UPDATED MODEL TO BE INCORPORATED IN THE NEXT ISSUE.

PARKING SPACES LEGEND:

NUMBER OF CAR SPACES (INCLUDING 10 EV's AND 1 ACCESSIBLE CAR SPACES) =48 SPACES

NUMBER OF EV'S=10 SPACES

NUMBER OF MOTORBIKES (MB)=17 SPACES

NUMBER OF BICYCLES=20 SPACES

SSDA Parking Schedule

Level	Type	Count
GROUND FLOOR		
GROUND FLOOR	Parking - 2500 x 1200 - Motorbike	17
GROUND FLOOR	Parking - 5400 x 2400 - Accessible Car	1
GROUND FLOOR	Parking - 5400 x 2400 - Standard Car	37
GROUND FLOOR	Parking - 5400 x 2400 - Standard Car EV	10
GROUND FLOOR	Parking - 5400 x 2400 - Standard Car Waiting Space	3
GROUND FLOOR	Parking - 5400 x 2700 - Acessible Zone	1

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

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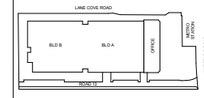
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Document Author Project Number

10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - BUILDINGS A AND B - GROUND

Drawing Status:

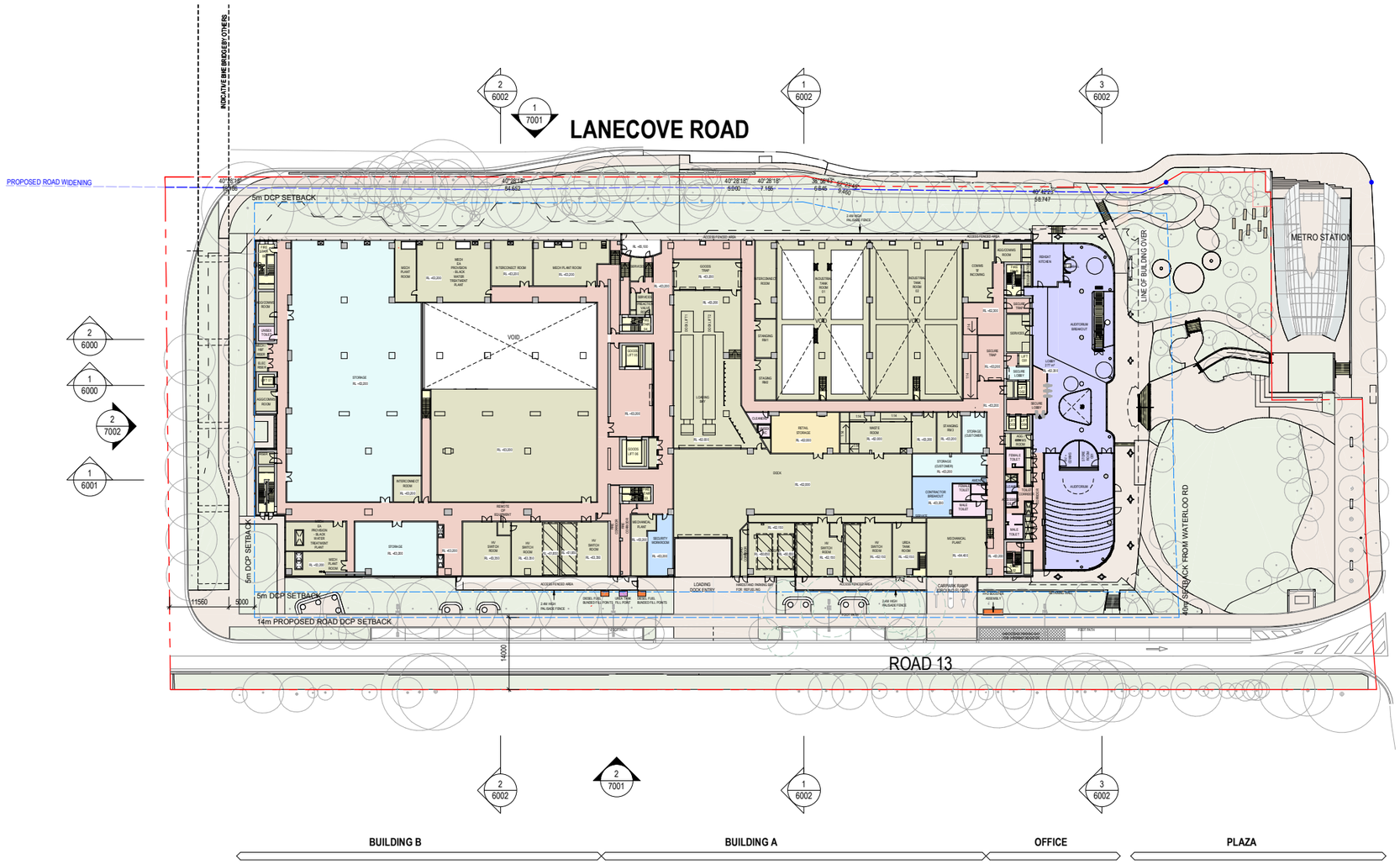
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AW	26/08/25

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Drawing Number	Rev
S5-ARC-HDR-DRG-00000-3000	CP03

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DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- FOH
- OFFICE
- RETAIL
- SERVICES
- STORAGE
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

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Brisbane QLD 4001
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PROJECT ARCHITECT

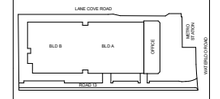
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NOMINATED ARCHITECTS
NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC Cate Cowlishaw 15211
ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
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Document Author Project Number
10374547

Key Plan



KEYPLAN ABOVE SHOWS PROJECT NORTH, NOT TRUE NORTH

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - BUILDINGS A AND B - LEVEL 01

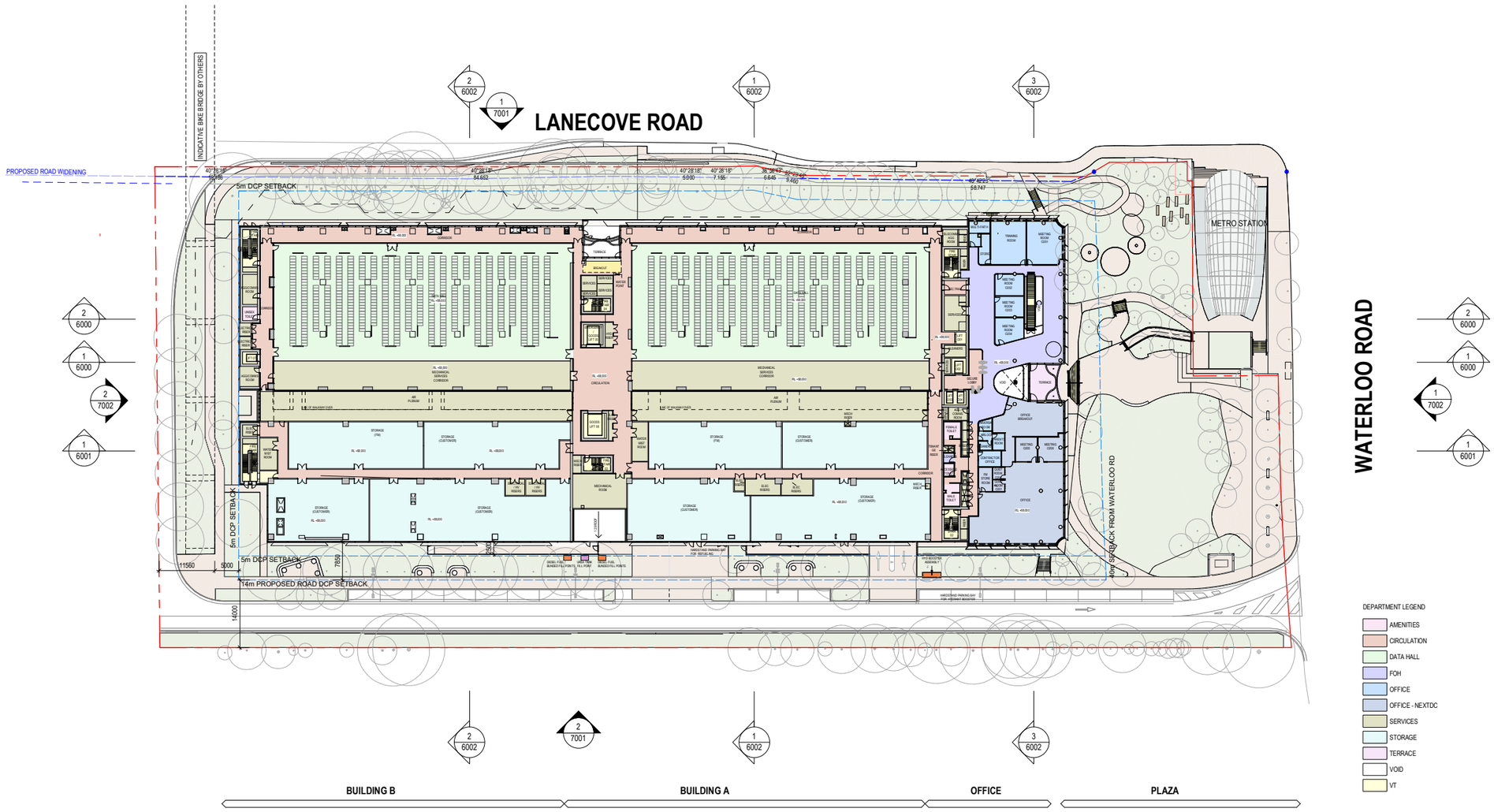
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S5-ARC-HDR-DRG-00000-3001	CP03

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DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- FOH
- OFFICE
- OFFICE - NEXTDC
- SERVICES
- STORAGE
- TERRACE
- VOID
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
GPO Box 3219
Brisbane QLD 4001
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PROJECT ARCHITECT

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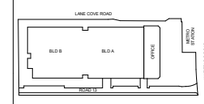
NOMINATED ARCHITECTS
NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC Cate Cowlishaw 15211
ACT Cate Cowlishaw 2757
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Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - BUILDINGS A AND B - LEVEL 02

Drawing Status:

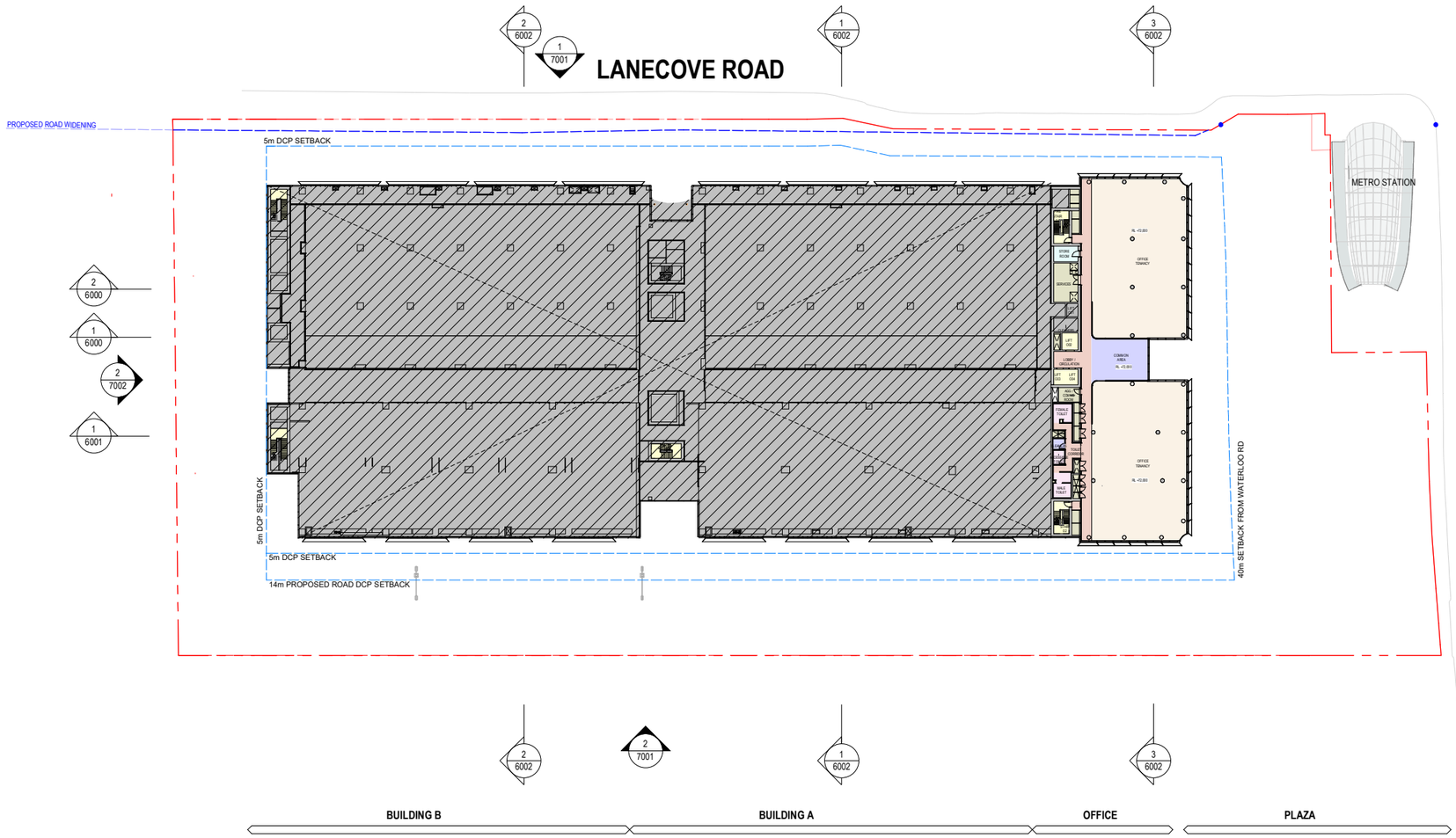
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Drawing Number	Rev
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DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- FOH
- SERVICES
- STORAGE
- TENANCY
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
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PROJECT ARCHITECT

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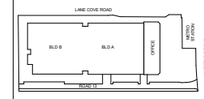
NOMINATED ARCHITECTS
NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC Cate Cowlishaw 15211
ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
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Document Author Project Number

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Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - OFFICE - LEVEL 03

Drawing Status:

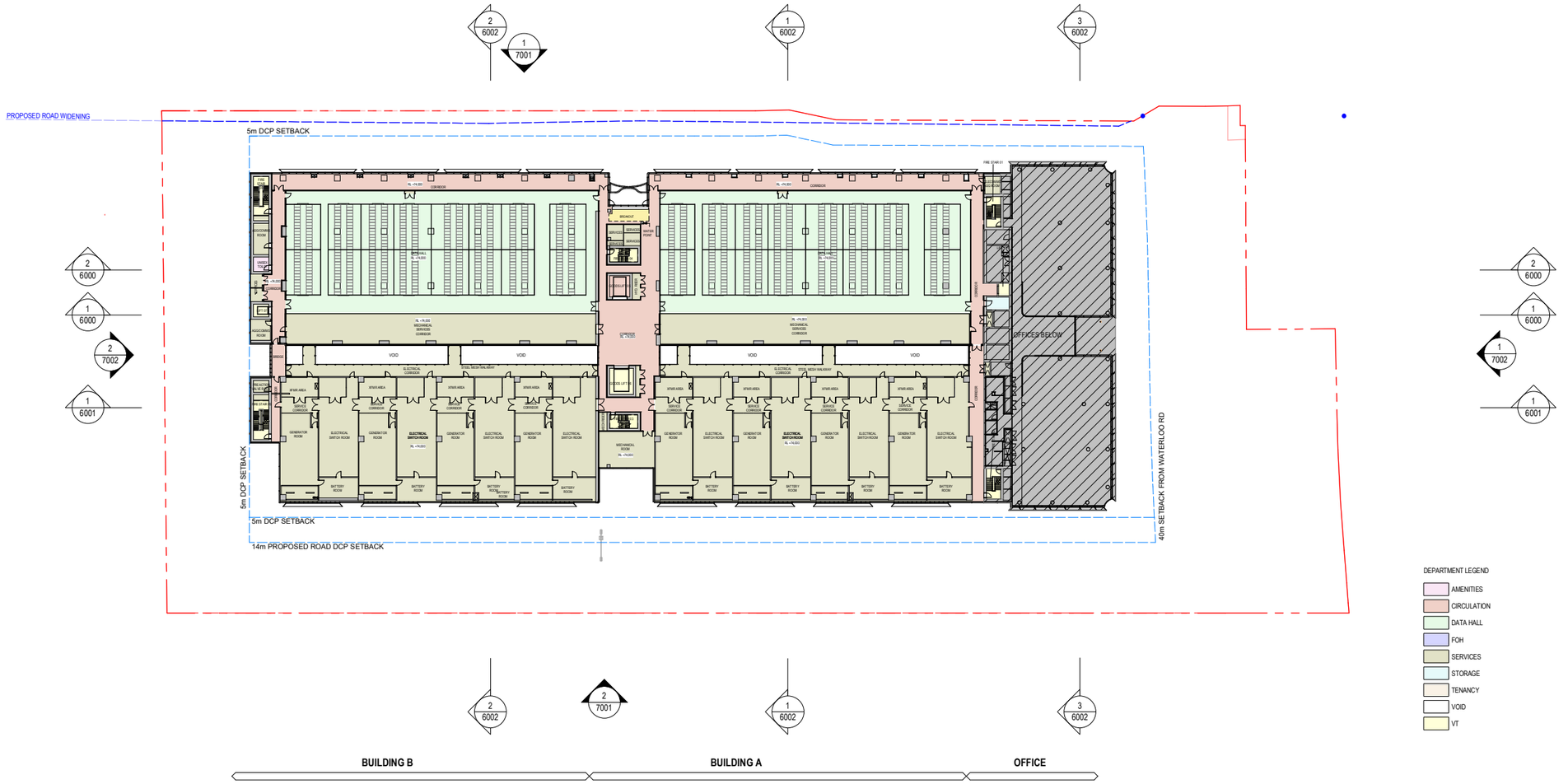
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Drawing Number	Rev
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24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

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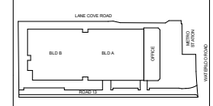
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NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC Cate Cowlishaw 15211
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Document Author Project Number

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Key Plan



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DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- FOH
- SERVICES
- STORAGE
- TENANCY
- VOID
- VT

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - BUILDINGS A AND B - LEVEL 03

Drawing Status:

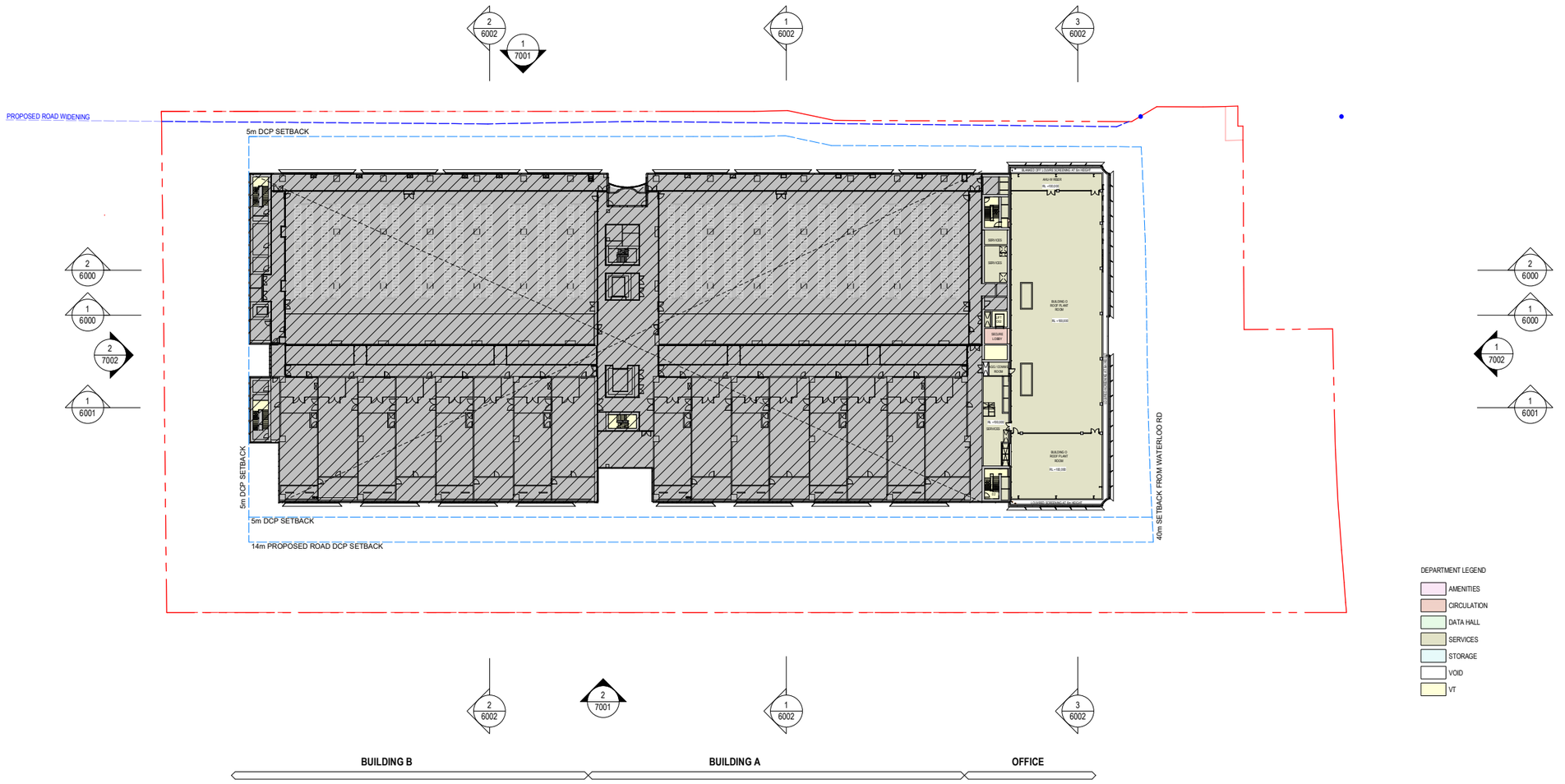
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24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
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Brisbane QLD 4001
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PROJECT ARCHITECT

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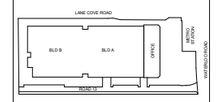
NOMINATED ARCHITECTS
NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC Cate Cowlishaw 15211
ACT Cate Cowlishaw 2757
TAS Cate Cowlishaw 1479
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Document Author Project Number

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Key Plan



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DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- SERVICES
- STORAGE
- VOID
- VT

Site:	Stage:	Phase:
S5		

NEXTDC Project Number:

S5.0003

Project Address:

269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:

NEXTDC S5

Drawing title

OVERALL PLAN - OFFICE - ROOF LEVEL

Drawing Status:

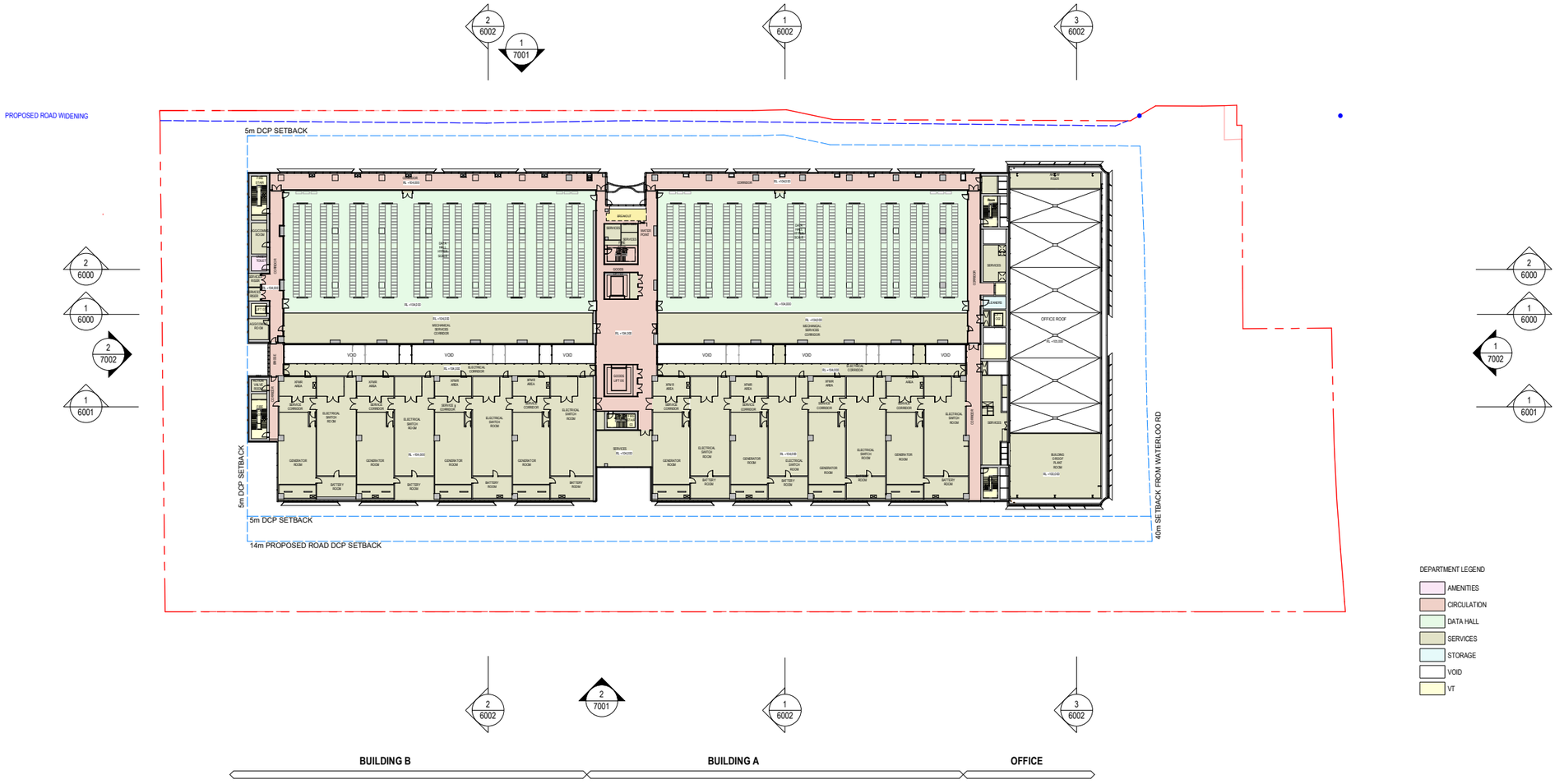
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Drawing Number	Rev
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DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- DATA HALL
- SERVICES
- STORAGE
- VOID
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
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Brisbane QLD 4001
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PROJECT ARCHITECT

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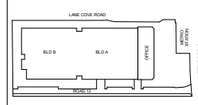
NOMINATED ARCHITECTS
NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC. Cate Cowlishaw 15211
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Document Author Project Number

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Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - BUILDINGS A AND B - LEVEL 08

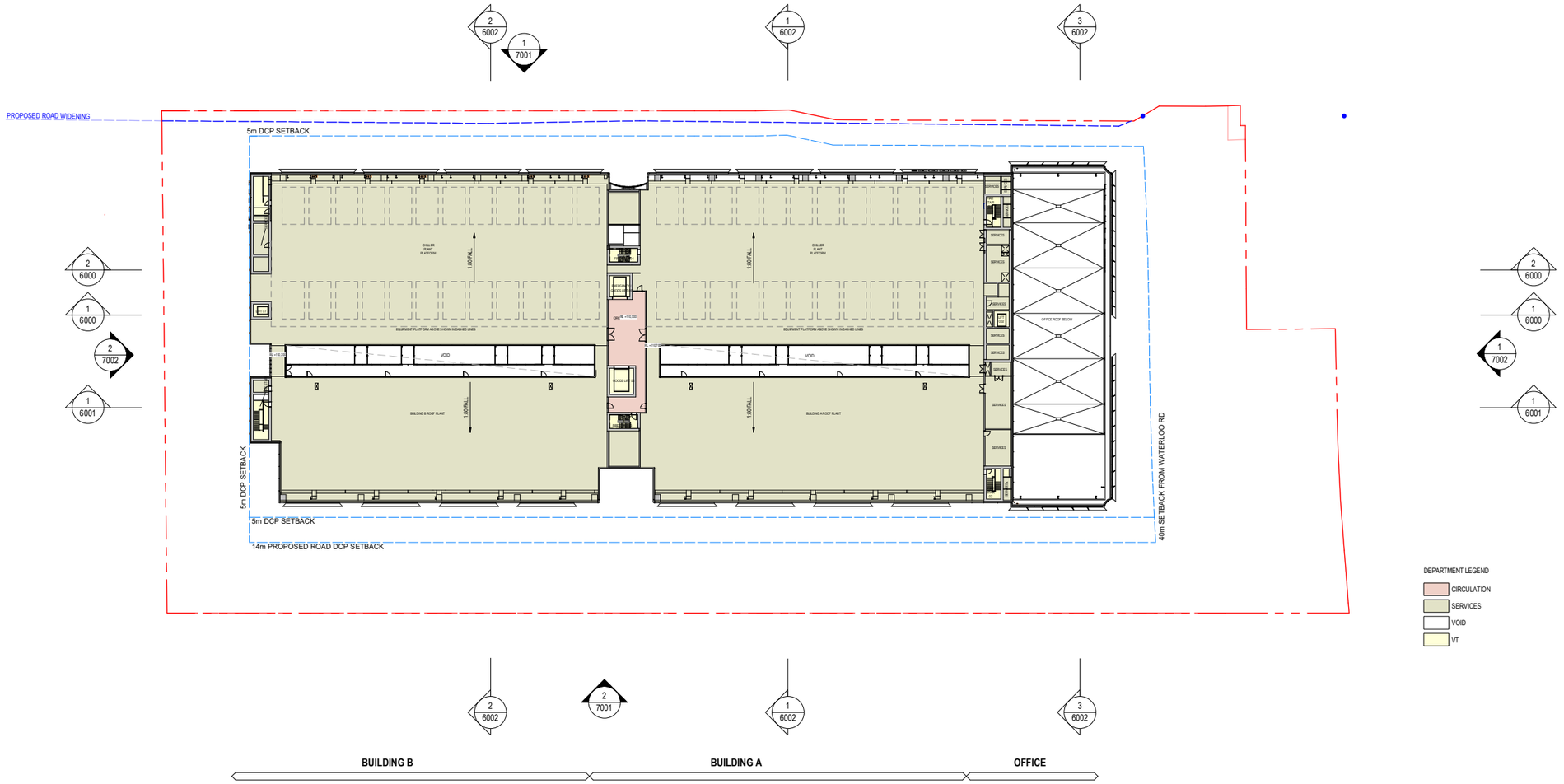
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S5-ARC-HDR-DRG-00000-3014	CP03

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DEPARTMENT LEGEND

- CIRCULATION
- SERVICES
- VOID
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
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Brisbane QLD 4001
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PROJECT ARCHITECT

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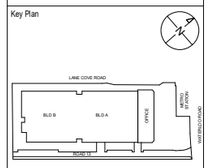
NOMINATED ARCHITECTS
NSW Cate Cowlishaw 10786, D. Joe Mihaljevic 8699, Mark Gazy 7289, Simon Fleet 8363
VIC. Cate Cowlishaw 15211
ACT Cate Cowlishaw 2707
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Document Author Project Number

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Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - BUILDINGS A AND B - ROOF PLANT LEVEL

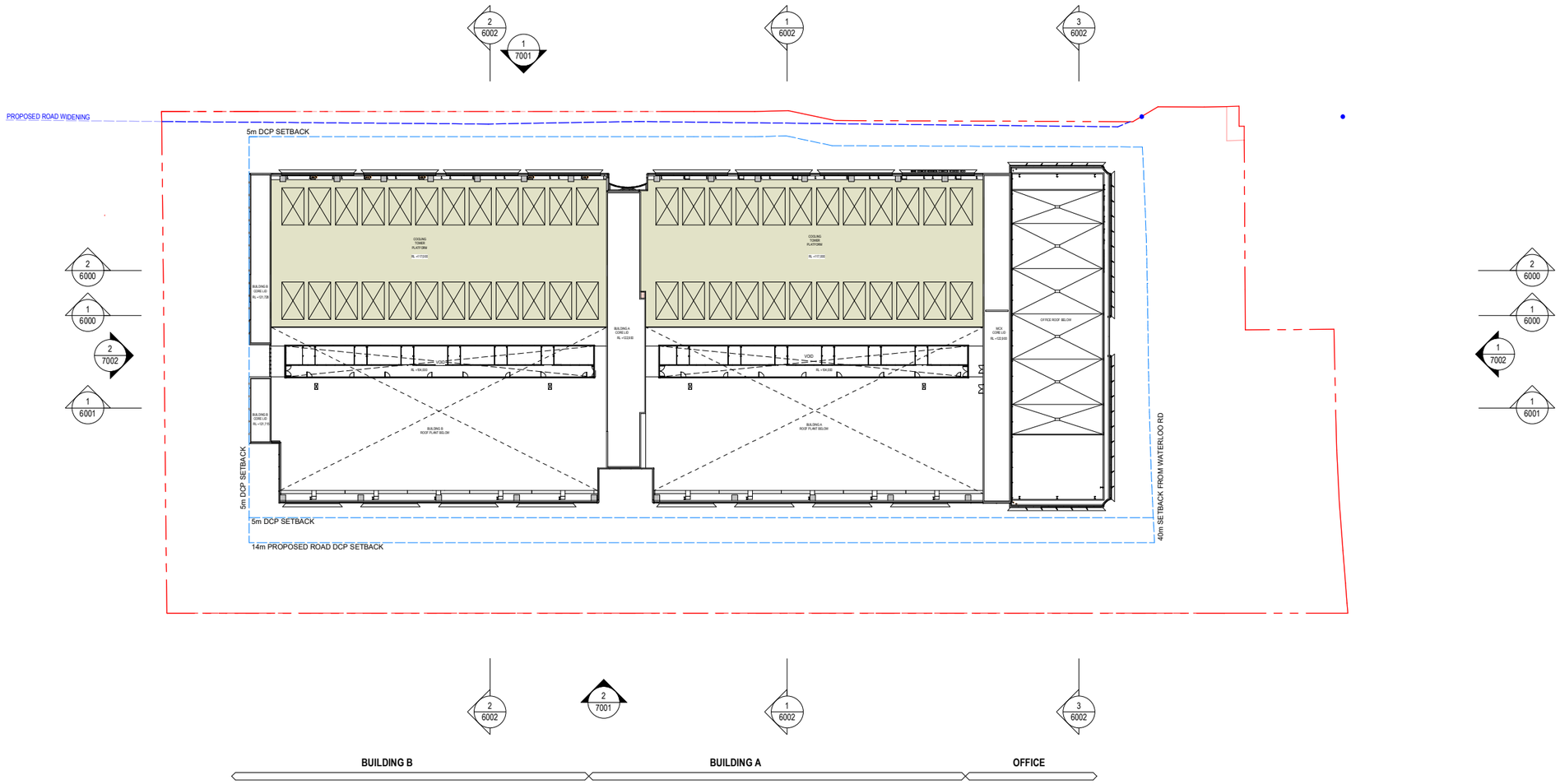
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24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

SITE LEGEND

- BOUNDARY LINE
- PROPOSED ROAD WIDENING
- DCP SETBACKS

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
GPO Box 3219
Brisbane QLD 4001
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PROJECT ARCHITECT

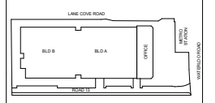
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Document Author Project Number
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Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL PLAN - COOLING TOWER PLATFORM LEVEL

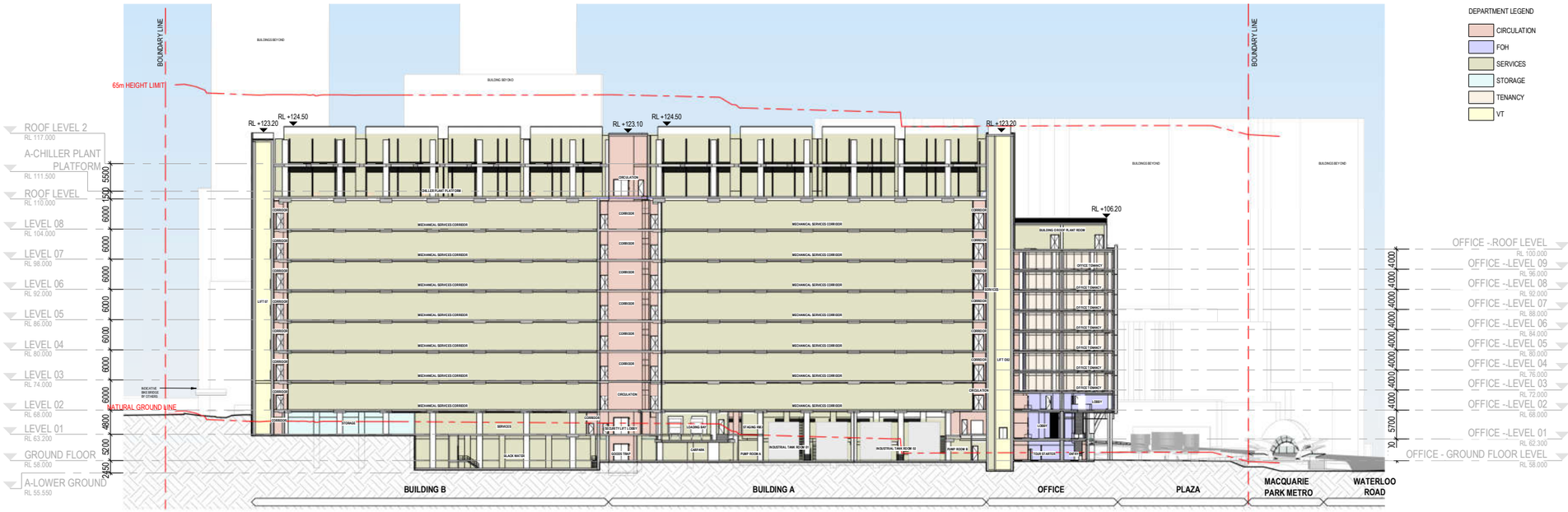
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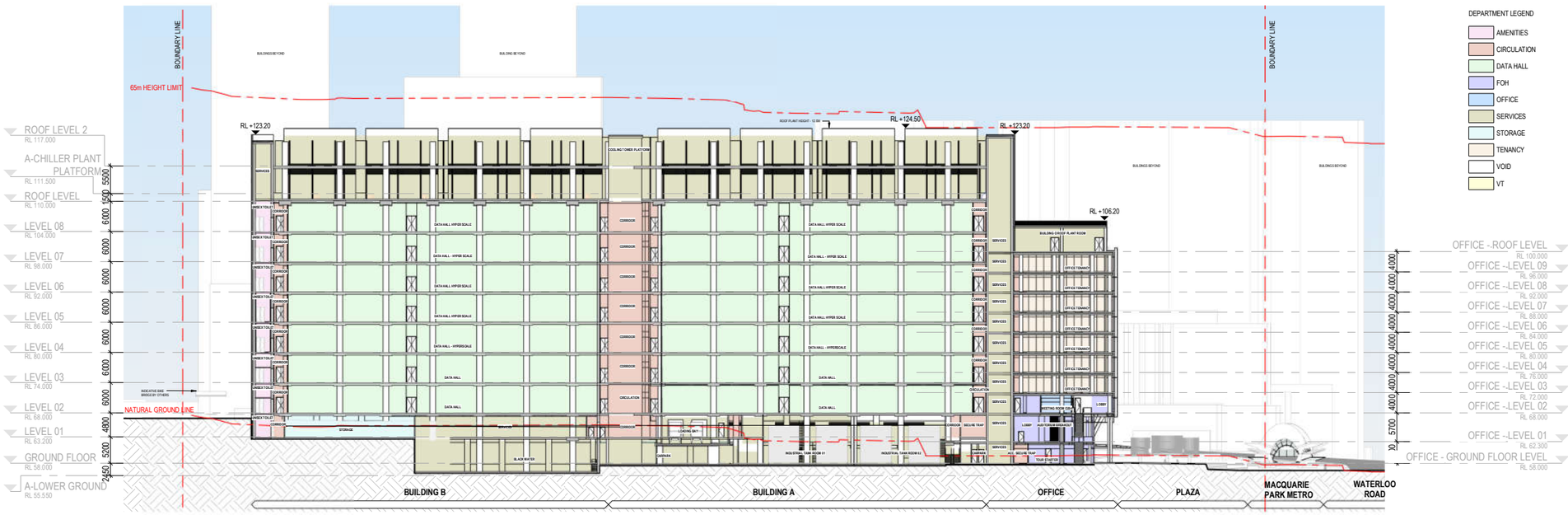
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1 **OVERALL SECTION 1**
1 : 500



2 **OVERALL SECTION 2**
1 : 500

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24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

PRINCIPAL CONSULTANTS

Architect HDR

Services ARUP

Structural TTW

PRINCIPAL CONTRACTOR

CLIENT

NEXTDC
GPO Box 3219
Brisbane QLD 4001
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PROJECT ARCHITECT

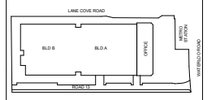
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Key Plan



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Site:	Stage:	Phase:
S5		

NEXTDC Project Number:
S5.0003

Project Address:
269 Lane Cove Rd, Macquarie Park, Sydney, NSW 2113

Project Name:
NEXTDC S5

Drawing title
OVERALL LONGITUDINAL SECTION - SHEET 1

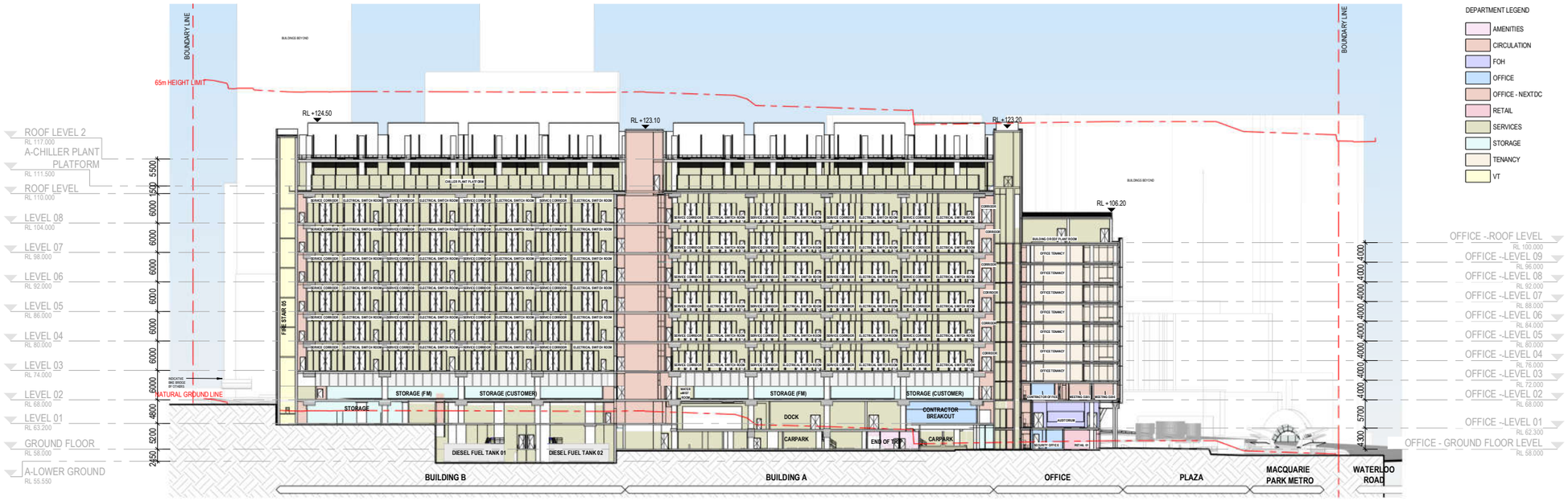
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1 OVERALL SECTION 3

1 : 500

DEPARTMENT LEGEND

- AMENITIES
- CIRCULATION
- FOH
- OFFICE
- OFFICE - NEXTDC
- RETAIL
- SERVICES
- STORAGE
- TENANCY
- VT

DATE	No.	REVISION HISTORY	DRW	CHK	QA
26/08/25	CP03	SSDA ISSUE	HDR	HDR	HDR
24/04/02	CP02	SSDA ISSUE	HDR	HDR	HDR
24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

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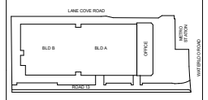
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Site:	Stage:	Phase:
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Project Name:

NEXTDC S5

Drawing title

OVERALL LONGITUDINAL SECTION - SHEET 2

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MATERIALS AND FINISHES LEGEND

ALP-01
POWDERCOATED ALUMINIUM PANELS
NEXTDC RED

ALP-02
POWDERCOATED ALUMINIUM PANELS
DARK GREY

AL-01
ALUMINIUM EXTRUSION
TIMBER LOOKING

AL-02
VERTICAL LOUCRES/BATTONS
DARK GREY

AL-03
HORIZONTAL LOUVRES
DARK GREY

GLZ-01
DOUBLE GLAZED FACADE

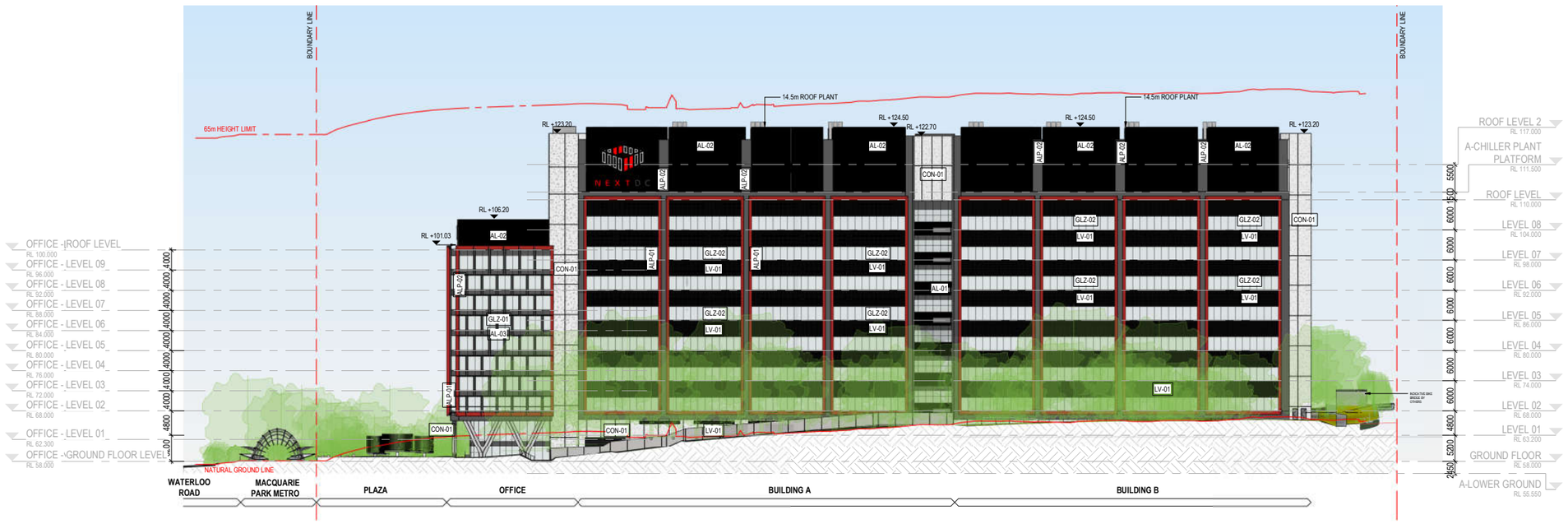
GLZ-02
DOUBLE GLAZED WINDOW

CON-01
LIGHT GREY PANELS

LV-01
ALUMINIUM HORIZONTAL LOUVRE - DARK GREY

SS-01
STAINLESS STEEL FLUES

WMW-01
WIRED MESH WALL



1 OVERALL - NORTH ELEVATION
1 : 500



2 OVERALL - SOUTH ELEVATION
1 : 500

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24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

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PROJECT ARCHITECT

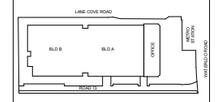
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NEXTDC Project Number:
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Project Name:
NEXTDC S5

Drawing title
OVERALL ELEVATION - SHEET 1

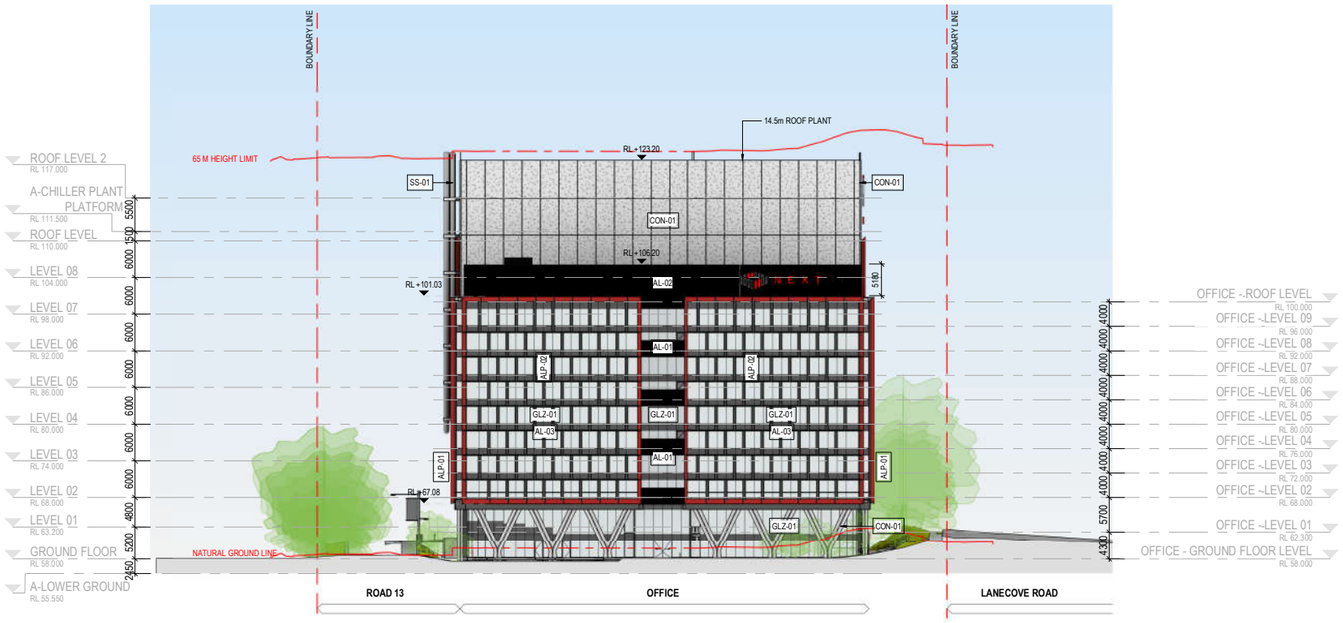
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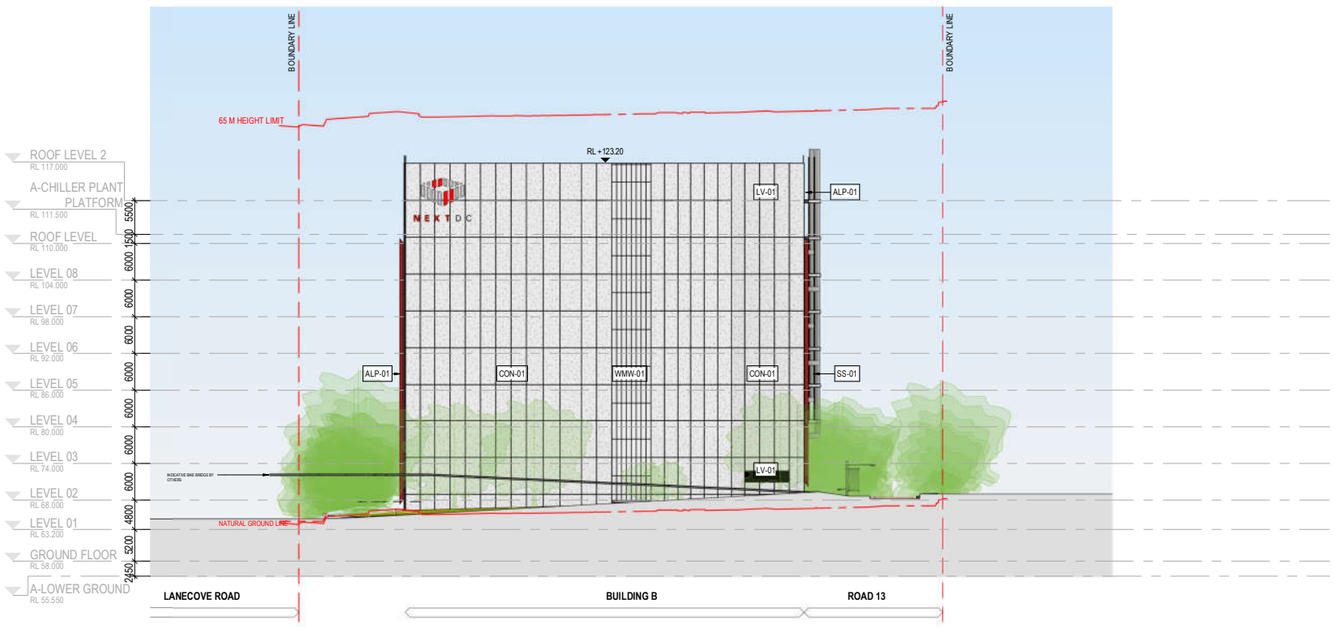
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1 OVERALL - EAST ELEVATION - MCX / OFFICE

1 : 500



2 OVERALL - WEST ELEVATION - BLD B

1 : 500

MATERIALS AND FINISHES LEGEND

ALP-01
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ALP-02
POWDERCOATED ALUMINIUM PANELS DARK GREY

AL-01
ALUMINIUM EXTRUSION TIMBER LOOKING

AL-02
VERTICAL LOUCRES/BATTONS DARK GREY

AL-03
HORIZONTAL LOUVRES DARK GREY

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LIGHT GREY PANELS

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ALUMINIUM HORIZONTAL LOUVRE - DARK GREY

SS-01
STAINLESS STEEL FLUES

WMW-01
WIRED MESH WALL

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24/03/22	CP01	SSDA ISSUE	HDR	HDR	HDR

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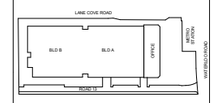
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Project Name:

NEXTDC S5

Drawing title

OVERALL ELEVATION - SHEET 2

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Appendix C: Data Summary Tables

PSI Data 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
FTS: Fluorotelomer Sulfonic Acid
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
NEMP: National Environmental Management Plan
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)
PFAS: Per- and Polyfluoroalkyl Substances
PFHxS: Perfluorohexanesulfonic Acid
PFOA: Perfluorooctanoic Acid
PFOS: Perfluorooctanesulfonic Acid
PQL: Practical Quantitation Limit
RS: Rinsate Sample
RSL: Regional Screening Levels
RSW: Restricted Solid Waste
SAC: Site Assessment Criteria
SCC: Specific Contaminant Concentration
SSA: Site Specific Assessment
SSHSLs: Site Specific Health Screening Levels
TB: Trip Blank
TCA: 1,1,1 Trichloroethane (methyl chloroform)
TCE: Trichloroethylene (Trichloroethene)
TCLP: Toxicity Characteristics Leaching Procedure
TS: Trip Spike
TRH: Total Recoverable Hydrocarbons
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 high 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.
- Data assessed using the Addendum to the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014) -October 2016

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.

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TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-D: 'Commercial/Industrial'

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)			3000	900	3600	240000	1500	730	6000	400000	4000	40	80	2000	2500	45	530	3600	50	2000	7	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH1	0.03-0.4	F: Silty Gravelly Sand	<4	<0.4	**15**	**37**	**15**	<0.1	**14**	**49**	**3.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<4	<0.4	**11**	**38**	**12**	<0.1	**9**	**38**	**2.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH1 - [LAB_TRIP]	0.03-0.4	Laboratory Triplicate	<4	<0.4	**10**	**96**	**13**	<0.1	**10**	**46**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH1	0.5-0.7	F:Silty Sand	**5**	<0.4	**20**	**8**	**17**	<0.1	**13**	**22**	**0.1**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH1	1.5-1.7	F: Silty Clay	**7**	<0.4	**21**	**20**	**24**	<0.1	**21**	**27**	**0.3**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH2	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**12**	**26**	**23**	<0.1	**12**	**39**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH2	0.5-0.95	F: Silty Sandy Clay	<4	<0.4	**11**	**19**	**12**	<0.1	**6**	**23**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH2	1.7-1.95	Silty Clay	**6**	<0.4	**23**	**2**	**14**	<0.1	**1**	**2**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH3	0.01-0.1	F: Silty Gravelly Sand	<4	<0.4	**13**	**74**	**4**	<0.1	**78**	**42**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	0.5-0.95	F: Silty Clay	**6**	<0.4	**17**	**5**	**18**	<0.1	**3**	**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
BH4	0.02-0.3	F:Silty Gravelly Sand	<4	<0.4	**11**	**63**	**3**	<0.1	**59**	**38**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH4	0.5-0.95	F: Silty Clay	**12**	<0.4	**25**	**4**	**20**	<0.1	**1**	**3**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH5	0.03-0.2	F: Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**86**	**39**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**11**	**71**	**3**	<0.1	**100**	**46**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH5	0.4-0.5	F: Silty Clay	**14**	<0.4	**18**	**22**	**17**	<0.1	**29**	**16**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH5	2.5-2.8	Silty Clay	**7**	<0.4	**9**	**5**	**19**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH5	3.3-3.45	Siltstone	<4	<0.4	**4**	**4**	**16**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH6	0.025-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**82**	**3**	<0.1	**82**	**44**	<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	0.5-0.95	F: Silty Clay	**8**	<0.4	**15**	**10**	**17**	<0.1	**9**	**6**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH7	0.05-0.1	F: Gravelly Sand	<4	<0.4	**10**	**73**	**2**	<0.1	**59**	**34**	<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	0.3-0.5	F: Silty Clay	**8**	<0.4	**21**	**6**	**16**	<0.1	**6**	**6**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH8	0.03-0.4	F: Silty Sand	**23**	<0.4	**16**	**39**	**25**	<0.1	**13**	**40**	**13**	**1.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	**15**	<0.4	**15**	**68**	**24**	<0.1	**11**	**41**	**12**	**1.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	**7**	<0.4	**15**	**28**	**27**	<0.1	**10**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH8	0.5-0.95	F: Gravelly Clay	**8**	<0.4	**17**	**15**	**19**	<0.1	**10**	**14**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**6**	<0.4	**19**	**17**	**22**	<0.1	**14**	**20**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH9	0.035-0.08	F: Gravelly Silty Sand	<4	<0.4	**15**	**20**	**47**	<0.1	**9**	**35**	**16**	**1.5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	Detected
BH9	0.4-0.5	F: Gravelly Silty Sand	**5**	<0.4	**15**	**11**	**24**	<0.1	**6**	**39**	**3.2**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH9	1.2-1.3	F: Silty Clay	**5**	<0.4	**12**	**11**	**19**	<0.1	**6**	**15**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH10	0.5-0.95	F: Sandy Gravelly Clay	**9**	<0.4	**13**	**15**	**18**	<0.1	**4**	**17**	**21**	**2.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH10	1.5-1.7	F: Sandy Gravelly Clay	**9**	<0.4	**18**	**14**	**23**	<0.1	**6**	**26**	**0.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH11	0.03-0.3	F: Silty Gravelly Sand	<4	<0.4	**9**	**51**	**3**	<0.1	**45**	**29**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH11	0.5-0.7	F: Silty Clay	**9**	<0.4	**25**	**14**	**16**	<0.1	**15**	**13**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH11	0.7-0.95	Silty Clay	**9**	<0.4	**17**	**2**	**18**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH12	0.05-0.23	F: Gravelly Sand	<4	<0.4	**12**	**51**	**2**	<0.1	**57**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<4	<0.4	**12**	**73**	**3**	<0.1	**67**	**39**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH12	1.7-1.95	F: Silty Clay	**7**	<0.4	**27**	**15**	**20**	<0.1	**25**	**16**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH13	0.5-0.95	F: Silty Gravelly Clay	**6**	<0.4	**11**	**16**	**13**	<0.1	**12**	**10**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH13	1.5-1.7	F: Silty Gravelly Clay	<4	<0.4	**9**	**6**	**16**	<0.1	**2**	**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
BH14	0.02-0.12	F: Gravelly Silty Sand	<4	<0.4	**10**	**76**	**2**	<0.1	**61**	**41**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<4	<0.4	**9**	**53**	**2**	<0.1	**57**	**31**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH16	0.01-0.2	F: Sandy Gravel	**6**	<0.4	**10**	**65**	**5**	<0.1	**64**	**38**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH17	0.05-0.15	F: Sandy Gravel	<4	<0.4	**9**	**71**	**3**	<0.1	**48**	**37**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH18	0.01-0.15	F: Gravelly Silty Sand	<4	<0.4	**11**	**64**	**12**	<0.1	**63**	**84**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH19	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**64**	**3**	<0.1	**54**	**35**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH19	0.5-0.95	F: Silty Clay	**11**	<0.4	**9**	**15**	**17**	<0.1	**7**	**8**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH20	0.02-0.3	F: Silty Sand	<4	<0.4	**9**	**39**	**8**	<0.1	**45**	**29**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH20	0.5-0.95	F: Silty Clay	<4	<0.4	**5**	**10**	**12**	<0.1	**6**	**4**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH21	0.04-0.15	F: Silty Clay	<4	<0.4	**10**	**49**	**5**	<0.1	**48**	**30**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH21	0.7-0.95	F: Silty Clay	**4**	<0.4	**12**	**32**	**12**	<0.1	**36**	**21**	**0.66**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH21	2.1-2.5	Silty Clay	**8**	<0.4	**16**	**5**	**20**	<0.1	**2**	**4**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH22	0.1-0.15	F: Gravelly Sand	<4	<0.4	**11**	**75**	**3**	<0.1	**72**	**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
BH22	0.3-0.5	F: Silty Clay	**6**	<0.4	**17**	**12**	**20**	<0.1	**12**	**16**	**3.5**	**0.7**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH23	0.02-0.3	F: Silty Gravelly Sand	<4	<0.4	**13**	**69**	**4**	<0.1	**69**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH23	0.5-0.95	F: Sand	**12**	<0.4	**7**	**3**	**3**	<0.1	**4**	**8**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH24	0-0.1	F: Silty Sand	<4	<0.4	**14**	**14**	**16**	<0.1	**6**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH24	0.8-0.95	F: Silty Clay	**8**	<0.4	**18**	**5**	**21**	<0.1	**5**	**11**	**0.3**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH25	0.1-0.3	F: Silty Clay	**7**	<0.4	**13**	**5**	**19**	<0.1	**5**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH26	0.7-1	XW Siltstone	<4	<0.4	**7**	**51**	**14**	<0.1	**4**	**8**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH27	0.3-0.5	F: Gravelly Silty Sand	**5**	<0.4	**19**	**19**	**20**	<0.1	**13**	**35**	**0.2**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH27	0.8-0.95	F: Silty Clay	**10**	<0.4	**35**	**7**	**23**	<0.1	**2**	**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
BH28	0-0.1	F: Clayey Sand	**6**	<0.4	**11**	**14**	**38**	<0.1	**6**	**56**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH28	1.5-1.95	F: Silty Clay	**6**	<0.4	**18**	**19**	**39**	<0.1	**10**	**43**	**1.2**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH28	3-3.2	F: Silty Clay	**12**	<0.4	**33**	**28**	**47**	**0.2**	**14**	**65**	**4.5**	**0.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH29	0.5-0.95	F: Silty Clay	**8**	<0.4	**22**	**7**	**24**	<0.1	**4**	**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
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**35**	<0.4	**41**	**15**	**33**	<0.1	**20**	**60**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH29 - [LAB_TRIP]	0.5-0.95	Triplicate	**17**	<0.4	**31**	**9**	**25**	<0.1	**13**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH29	3-3.45	F: Silty Clay	**4**	<0.4	**16**	**14**	**51**	<0.1	**7**	**56**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	<4	**2**	**39**	**30**	**110**	<0.1	**30**	**99**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH30	0-0.1	F: Gravelly Sand	**6**	<0.4	**14**	**18**	**52**	<0.1	**6**	**55**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH31	0.03-0.1	F: Gravelly Sand	<4	<0.4	**9**	**58**	**5**	<0.1	**57**	**47**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH32	0.03-0.3	F: Gravelly Sand	<4	<0.4	**11**	**66**	**4**	<0.1	**76**	**43**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH33	0.04-0.14	F: Gravelly Silty Sand	<4	<0.4	**10**	**64**	**4**	<0.1	**74**	**40**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH34	0.03-0.2	F: Gravelly Sand	<4	<0.4	**12**	**68**	**4**	<0.1	**75**	**48**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH35	0-0.15	F: Silty Clay	**5**	<0.4	**12**	**19**	**52**	<0.1	**9**	**82**	**0.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
SDUP1	0.04-0.14	Duplicate of BH33	<4	<0.4	**10**	**64**	**4**	<0.1	**60**	**36**	<0.05	<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 BH24	<4	<0.4	**12**	**13**	**17**	<0.1	**7**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP3	0.1-0.15	Duplicate of BH22	<4	<0.4	**12**	**50**	**3**	<0.1	**61**	**30**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP4	0.03-0.4	Duplicate of BH8	**6**	<0.4	**15**	**25**	**32**	<0.1	**10**	**43**	**10**	**1.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP6	0.03-0.2	Duplicate of BH5	<4	<0.4	**10**	**74**	**3**	<0.1	**100**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**10**	**69**	**3**	<0.1	**93**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP8	0.025-0.4	Duplicate of BH6	<4	<0.4	**9**	**56**	<1	<0.1	**79**	**38**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP8 (LAB_DUP)	0.025-0.4	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP9	0.5-0.95	Duplicate of BH2	<4	<0.4	**15**	**7**	**11**	<0.1	**8**	**18**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP10	0.05-0.23	Duplicate of BH12	<4	<0.4	**10**	**59**	**2**	<0.1	**69**	**39**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FCF1-BH2	0.5-1.5	Fragment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
FCF1-Surface	-	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			84	84	84	84	84	84	84	84	82	82	53	53	53	53	53	53	53	53	53	60
Maximum Value			35	2	41	96	110	0.2	100	99	21	2.4	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
Asbestos detected **Detected**

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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-D: COMMERCIAL/INDUSTRIAL**							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH1	0.03-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH1	0.5-0.7	F:Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH1	1.5-1.7	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH2	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH2	0.5-0.95	F: Silty Sandy Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH2	1.7-1.95	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH3	0.01-0.1	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH3	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH4	0.02-0.3	F:Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH4	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH5	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH5	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.1
BH5	2.5-2.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.7
BH5	3.3-3.45	Siltstone	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH6	0.025-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH6	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH7	0.05-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH7	0.3-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	3.1
BH8	0.03-0.4	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH8	0.5-0.95	F: Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH9	0.035-0.08	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH9	0.4-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH9	1.2-1.3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH10	0.5-0.95	F: Sandy Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.8
BH10	1.5-1.7	F: Sandy Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH11	0.03-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH11	0.5-0.7	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH11	0.7-0.95	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH12	0.05-0.23	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH12	1.7-1.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH13	0.5-0.95	F: Silty Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH13	1.5-1.7	F: Silty Gravelly Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH14	0.02-0.12	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH16	0.01-0.2	F: Sandy Gravel	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.4
BH17	0.05-0.15	F: Sandy Gravel	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.6
BH18	0.01-0.15	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
BH19	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH19	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH20	0.02-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH20	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH21	0.04-0.15	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH21	0.7-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	4.5
BH21	2.1-2.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0
BH22	0.1-0.15	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH22	0.3-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH23	0.02-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH23	0.5-0.95	F: Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH24	0-0.1	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.4
BH24	0.8-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH25	0.1-0.3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.1
BH26	0.7-1	XW Siltstone	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.5
BH27	0.3-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH27	0.8-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH28	0-0.1	F: Clayey Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH28	1.5-1.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH28	3-3.2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH29	0.5-0.95	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH29	3-3.45	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
BH30	0-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	**63**	<0.2	<0.5	<1	<1	<1	1.5
BH31	0.03-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH32	0.03-0.3	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH33	0.04-0.14	F: Gravelly Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH34	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH35	0-0.15	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.7
SDUP1	0.04-0.14	Duplicate of BH33	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP2	0-0.1	Duplicate of BH24	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	NA	<0.2	<0.5	<1	<1	<1	NA
SDUP3	0.1-0.15	Duplicate of BH22	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP4	0.03-0.4	Duplicate of BH8	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP6	0.03-0.2	Duplicate of BH5	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP8	0.025-0.4	Duplicate of BH6	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP9	0.5-0.95	Duplicate of BH2	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
SDUP10	0.05-0.23	Duplicate of BH12	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples					82	81	82	82	82	82	82	64
Maximum Value					<PQL	63	<PQL	<PQL	<PQL	<PQL	<PQL	4.5

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
BH1	0.03-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH1	0.5-0.7	F:Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH1	1.5-1.7	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH2	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH2	0.5-0.95	F: Silty Sandy Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH2	1.7-1.95	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH3	0.01-0.1	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH3	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH4	0.02-0.3	F:Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH4	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	2.5-2.8	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH5	3.3-3.45	Siltstone	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH6	0.025-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH6	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH7	0.05-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH7	0.3-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8	0.03-0.4	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8	0.5-0.95	F: Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH9	0.035-0.08	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH9	0.4-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH9	1.2-1.3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH10	0.5-0.95	F: Sandy Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH10	1.5-1.7	F: Sandy Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH11	0.03-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH11	0.5-0.7	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH11	0.7-0.95	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH12	0.05-0.23	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH12	1.7-1.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH13	0.5-0.95	F: Silty Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH13	1.5-1.7	F: Silty Gravelly Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH14	0.02-0.12	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH16	0.01-0.2	F: Sandy Gravel	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH17	0.05-0.15	F: Sandy Gravel	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH18	0.01-0.15	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH19	0.02-0.4	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH19	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH20	0.02-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH20	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH21	0.04-0.15	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH21	0.7-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH21	2.1-2.5	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH22	0.1-0.15	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH22	0.3-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH23	0.02-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH23	0.5-0.95	F: Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH24	0-0.1	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH24	0.8-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH25	0.1-0.3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH26	0.7-1	XW Siltstone	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH27	0.3-0.5	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH27	0.8-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH28	0-0.1	F: Clayey Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH28	1.5-1.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH28	3-3.2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29	0.5-0.95	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29	3-3.45	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH30	0-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH31	0.03-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH32	0.03-0.3	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH33	0.04-0.14	F: Gravelly Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH34	0.03-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH35	0-0.15	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP1	0.04-0.14	Duplicate of BH33	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP2	0-0.1	Duplicate of BH24	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NA	3	NL	NL	230	NL
SDUP3	0.1-0.15	Duplicate of BH22	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP4	0.03-0.4	Duplicate of BH8	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP6	0.03-0.2	Duplicate of BH5	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP8	0.025-0.4	Duplicate of BH6	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP9	0.5-0.95	Duplicate of BH2	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP10	0.05-0.23	Duplicate of BH12	0m to <1m	Sand	260	NL	3	NL	NL	230	NL

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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			**COMMERCIAL/INDUSTRIAL**			
Sample Reference	**Sample Depth**	**Soil Texture**				
BH1	0.03-0.4	Coarse	<25	<50	**190**	**240**
BH1 - [LAB_DUP]	0.03-0.4	Coarse	<25	<50	**160**	**240**
BH1	0.5-0.7	Coarse	<25	<50	<100	<100
BH1	1.5-1.7	Coarse	<25	<50	<100	<100
BH2	0.02-0.4	Coarse	<25	<50	**140**	**210**
BH2	0.5-0.95	Coarse	<25	<50	<100	<100
BH2	1.7-1.95	Coarse	<25	<50	<100	<100
BH3	0.01-0.1	Coarse	<25	<50	<100	<100
BH3	0.5-0.95	Coarse	<25	<50	<100	<100
BH4	0.02-0.3	Coarse	<25	<50	**170**	**510**
BH4	0.5-0.95	Coarse	<25	<50	<100	<100
BH5	0.03-0.2	Coarse	<25	<50	<100	<100
BH5 - [LAB_DUP]	0.03-0.2	Coarse	<25	<50	<100	<100
BH5	0.4-0.5	Coarse	<25	<50	<100	<100
BH5	2.5-2.8	Coarse	<25	<50	<100	<100
BH5	3.3-3.45	Coarse	<25	<50	<100	<100
BH6	0.025-0.4	Coarse	<25	<50	**110**	**360**
BH6	0.5-0.95	Coarse	<25	<50	<100	<100
BH7	0.05-0.1	Coarse	<25	<50	<100	<100
BH7	0.3-0.5	Coarse	<25	<50	<100	<100
BH8	0.03-0.4	Coarse	<25	<50	**320**	**300**
BH8 - [LAB_DUP]	0.03-0.4	Coarse	<25	<50	**270**	**290**
BH8	0.5-0.95	Coarse	<25	<50	<100	<100
BH8 - [LAB_DUP]	0.5-0.95	Coarse	<25	<50	<100	<100
BH9	0.035-0.08	Coarse	<25	<50	**310**	**280**
BH9	0.4-0.5	Coarse	<25	<50	<100	<100
BH9	1.2-1.3	Coarse	<25	<50	<100	<100
BH10	0.5-0.95	Coarse	<25	<50	<100	<100
BH10	1.5-1.7	Coarse	<25	<50	<100	<100
BH11	0.03-0.3	Coarse	<25	<50	**310**	**790**
BH11	0.5-0.7	Coarse	<25	<50	<100	<100
BH11	0.7-0.95	Coarse	<25	<50	<100	<100
BH12	0.05-0.23	Coarse	<25	<50	<100	<100
BH12 - [LAB_DUP]	0.05-0.23	Coarse	<25	<50	<100	<100
BH12	1.7-1.95	Coarse	<25	<50	<100	<100
BH13	0.5-0.95	Coarse	<25	<50	<100	<100
BH13	1.5-1.7	Coarse	<25	<50	<100	<100
BH14	0.02-0.12	Coarse	<25	<50	<100	<100
BH14 - [LAB_DUP]	0.02-0.12	Coarse	<25	<50	<100	<100
BH16	0.01-0.2	Coarse	<25	<50	<100	<100
BH17	0.05-0.15	Coarse	<25	<50	**310**	**480**
BH18	0.01-0.15	Coarse	<25	<50	<100	**210**
BH19	0.02-0.4	Coarse	<25	<50	**210**	**600**
BH19	0.5-0.95	Coarse	<25	<50	<100	<100
BH20	0.02-0.3	Coarse	<25	<50	<100	<100
BH20	0.5-0.95	Coarse	<25	<50	<100	<100
BH21	0.04-0.15	Coarse	<25	<50	<100	<100
BH21	0.7-0.95	Coarse	<25	<50	<100	<100
BH21	2.1-2.5	Coarse	<25	<50	<100	<100
BH22	0.1-0.15	Coarse	<25	<50	<100	<100
BH22	0.3-0.5	Coarse	<25	<50	<100	<100
BH23	0.02-0.3	Coarse	<25	<50	<100	<100
BH23	0.5-0.95	Coarse	<25	<50	**470**	<100
BH24	0-0.1	Coarse	<25	<50	**130**	**200**
BH24	0.8-0.95	Coarse	<25	<50	**220**	**280**
BH25	0.1-0.3	Coarse	<25	<50	<100	<100
BH26	0.7-1	Coarse	<25	<50	<100	<100
BH27	0.3-0.5	Coarse	<25	<50	<100	<100
BH27	0.8-0.95	Coarse	<25	<50	<100	<100
BH28	0-0.1	Coarse	<25	<50	<100	<100
BH28	1.5-1.95	Coarse	<25	<50	<100	<100
BH28	3-3.2	Coarse	<25	<50	<100	<100
BH29	0.5-0.95	Coarse	<25	<50	<100	<100
BH29 - [LAB_DUP]	0.5-0.95	Coarse	<25	<50	<100	<100
BH29	3-3.45	Coarse	<25	<50	<100	<100
BH29 - [LAB_DUP]	3-3.45	Coarse	<25	<50	<100	<100
BH30	0-0.1	Coarse	<25	**63**	**350**	**160**
BH31	0.03-0.1	Coarse	<25	<50	<100	**180**
BH32	0.03-0.3	Coarse	<25	<50	<100	<100
BH33	0.04-0.14	Coarse	<25	<50	<100	**220**
BH34	0.03-0.2	Coarse	<25	<50	<100	**110**
BH35	0-0.15	Coarse	<25	<50	<100	<100
SDUP1	0.04-0.14	Coarse	<25	<50	**100**	**240**
SDUP2	0-0.1	Coarse	<25	<50	<100	<100
SDUP2 - [LAB_DUP]	0-0.1	Coarse	<25	NA	NA	NA
SDUP3	0.1-0.15	Coarse	<25	<50	<100	**100**
SDUP4	0.03-0.4	Coarse	<25	<50	**180**	**160**
SDUP6	0.03-0.2	Coarse	<25	<50	<100	<100
SDUP6 - [LAB_DUP]	0.03-0.2	Coarse	<25	<50	<100	<100
SDUP8	0.025-0.4	Coarse	<25	<50	<100	**160**
SDUP9	0.5-0.95	Coarse	<25	<50	<100	<100
SDUP10	0.05-0.23	Coarse	<25	<50	<100	<100
Total Number of Samples			82	81	81	81
Maximum Value			<PQL	63	470	790

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	0.03-0.4	Coarse	700	1000	3500	10000
BH1 - [LAB_DUP]	0.03-0.4	Coarse	700	1000	3500	10000
BH1	0.5-0.7	Coarse	700	1000	3500	10000
BH1	1.5-1.7	Coarse	700	1000	3500	10000
BH2	0.02-0.4	Coarse	700	1000	3500	10000
BH2	0.5-0.95	Coarse	700	1000	3500	10000
BH2	1.7-1.95	Coarse	700	1000	3500	10000
BH3	0.01-0.1	Coarse	700	1000	3500	10000
BH3	0.5-0.95	Coarse	700	1000	3500	10000
BH4	0.02-0.3	Coarse	700	1000	3500	10000
BH4	0.5-0.95	Coarse	700	1000	3500	10000
BH5	0.03-0.2	Coarse	700	1000	3500	10000
BH5 - [LAB_DUP]	0.03-0.2	Coarse	700	1000	3500	10000
BH5	0.4-0.5	Coarse	700	1000	3500	10000
BH5	2.5-2.8	Coarse	700	1000	3500	10000
BH5	3.3-3.45	Coarse	700	1000	3500	10000
BH6	0.025-0.4	Coarse	700	1000	3500	10000
BH6	0.5-0.95	Coarse	700	1000	3500	10000
BH7	0.05-0.1	Coarse	700	1000	3500	10000
BH7	0.3-0.5	Coarse	700	1000	3500	10000
BH8	0.03-0.4	Coarse	700	1000	3500	10000
BH8 - [LAB_DUP]	0.03-0.4	Coarse	700	1000	3500	10000
BH8	0.5-0.95	Coarse	700	1000	3500	10000
BH8 - [LAB_DUP]	0.5-0.95	Coarse	700	1000	3500	10000
BH9	0.035-0.08	Coarse	700	1000	3500	10000
BH9	0.4-0.5	Coarse	700	1000	3500	10000
BH9	1.2-1.3	Coarse	700	1000	3500	10000
BH10	0.5-0.95	Coarse	700	1000	3500	10000
BH10	1.5-1.7	Coarse	700	1000	3500	10000
BH11	0.03-0.3	Coarse	700	1000	3500	10000
BH11	0.5-0.7	Coarse	700	1000	3500	10000
BH11	0.7-0.95	Coarse	700	1000	3500	10000
BH12	0.05-0.23	Coarse	700	1000	3500	10000
BH12 - [LAB_DUP]	0.05-0.23	Coarse	700	1000	3500	10000
BH12	1.7-1.95	Coarse	700	1000	3500	10000
BH13	0.5-0.95	Coarse	700	1000	3500	10000
BH13	1.5-1.7	Coarse	700	1000	3500	10000
BH14	0.02-0.12	Coarse	700	1000	3500	10000
BH14 - [LAB_DUP]	0.02-0.12	Coarse	700	1000	3500	10000
BH16	0.01-0.2	Coarse	700	1000	3500	10000
BH17	0.05-0.15	Coarse	700	1000	3500	10000
BH18	0.01-0.15	Coarse	700	1000	3500	10000
BH19	0.02-0.4	Coarse	700	1000	3500	10000
BH19	0.5-0.95	Coarse	700	1000	3500	10000
BH20	0.02-0.3	Coarse	700	1000	3500	10000
BH20	0.5-0.95	Coarse	700	1000	3500	10000
BH21	0.04-0.15	Coarse	700	1000	3500	10000
BH21	0.7-0.95	Coarse	700	1000	3500	10000
BH21	2.1-2.5	Coarse	700	1000	3500	10000
BH22	0.1-0.15	Coarse	700	1000	3500	10000
BH22	0.3-0.5	Coarse	700	1000	3500	10000
BH23	0.02-0.3	Coarse	700	1000	3500	10000
BH23	0.5-0.95	Coarse	700	1000	3500	10000
BH24	0-0.1	Coarse	700	1000	3500	10000
BH24	0.8-0.95	Coarse	700	1000	3500	10000
BH25	0.1-0.3	Coarse	700	1000	3500	10000
BH26	0.7-1	Coarse	700	1000	3500	10000
BH27	0.3-0.5	Coarse	700	1000	3500	10000
BH27	0.8-0.95	Coarse	700	1000	3500	10000
BH28	0-0.1	Coarse	700	1000	3500	10000
BH28	1.5-1.95	Coarse	700	1000	3500	10000
BH28	3-3.2	Coarse	700	1000	3500	10000
BH29	0.5-0.95	Coarse	700	1000	3500	10000
BH29 - [LAB_DUP]	0.5-0.95	Coarse	700	1000	3500	10000
BH29	3-3.45	Coarse	700	1000	3500	10000
BH29 - [LAB_DUP]	3-3.45	Coarse	700	1000	3500	10000
BH30	0-0.1	Coarse	700	1000	3500	10000
BH31	0.03-0.1	Coarse	700	1000	3500	10000
BH32	0.03-0.3	Coarse	700	1000	3500	10000
BH33	0.04-0.14	Coarse	700	1000	3500	10000
BH34	0.03-0.2	Coarse	700	1000	3500	10000
BH35	0-0.15	Coarse	700	1000	3500	10000
SDUP1	0.04-0.14	Coarse	700	1000	3500	10000
SDUP2	0-0.1	Coarse	700	1000	3500	10000
SDUP2 - [LAB_DUP]	0-0.1	Coarse	700	NA	NA	NA
SDUP3	0.1-0.15	Coarse	700	1000	3500	10000
SDUP4	0.03-0.4	Coarse	700	1000	3500	10000
SDUP6	0.03-0.2	Coarse	700	1000	3500	10000
SDUP6 - [LAB_DUP]	0.03-0.2	Coarse	700	1000	3500	10000
SDUP8	0.025-0.4	Coarse	700	1000	3500	10000
SDUP9	0.5-0.95	Coarse	700	1000	3500	10000
SDUP10	0.05-0.23	Coarse	700	1000	3500	10000

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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		26,000	20,000	27,000	38,000	430	99,000	27,000	81,000	11,000	
Site Use		**COMMERCIAL/INDUSTRIAL - DIRECT SOIL CONTACT**									
Sample Reference	**Sample Depth**										
BH1	0.03-0.4	<25	<50	**190**	**240**	<0.2	<0.5	<1	<1	<1	**0.2**
BH1 - [LAB_DUP]	0.03-0.4	<25	<50	**160**	**240**	<0.2	<0.5	<1	<1	<1	NA
BH1	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH1	1.5-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH2	0.02-0.4	<25	<50	**140**	**210**	<0.2	<0.5	<1	<1	<1	**1**
BH2	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH2	1.7-1.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH3	0.01-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
BH3	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH4	0.02-0.3	<25	<50	**170**	**510**	<0.2	<0.5	<1	<1	<1	**0.3**
BH4	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH5	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH5 - [LAB_DUP]	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH5	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.1**
BH5	2.5-2.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.7**
BH5	3.3-3.45	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH6	0.025-0.4	<25	<50	**110**	**360**	<0.2	<0.5	<1	<1	<1	**0.2**
BH6	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH7	0.05-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH7	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**3.1**
BH8	0.03-0.4	<25	<50	**320**	**300**	<0.2	<0.5	<1	<1	<1	**1**
BH8 - [LAB_DUP]	0.03-0.4	<25	<50	**270**	**290**	<0.2	<0.5	<1	<1	<1	NA
BH8	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.2**
BH8 - [LAB_DUP]	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH9	0.035-0.08	<25	<50	**310**	**280**	<0.2	<0.5	<1	<1	<1	**0.8**
BH9	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH9	1.2-1.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH10	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.8**
BH10	1.5-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH11	0.03-0.3	<25	<50	**310**	**790**	<0.2	<0.5	<1	<1	<1	**0.2**
BH11	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH11	0.7-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH12	0.05-0.23	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH12 - [LAB_DUP]	0.05-0.23	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH12	1.7-1.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH13	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH13	1.5-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH14	0.02-0.12	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH14 - [LAB_DUP]	0.02-0.12	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH16	0.01-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.4**
BH17	0.05-0.15	<25	<50	**310**	**480**	<0.2	<0.5	<1	<1	<1	**1.6**
BH18	0.01-0.15	<25	<50	<100	**210**	<0.2	<0.5	<1	<1	<1	**1.7**
BH19	0.02-0.4	<25	<50	**210**	**600**	<0.2	<0.5	<1	<1	<1	**0.1**
BH19	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH20	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH20	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH21	0.04-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH21	0.7-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**4.5**
BH21	2.1-2.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	0
BH22	0.1-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH22	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH23	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH23	0.5-0.95	<25	<50	**470**	<100	<0.2	<0.5	<1	<1	<1	**0.2**
BH24	0-0.1	<25	<50	**130**	**200**	<0.2	<0.5	<1	<1	<1	**2.4**
BH24	0.8-0.95	<25	<50	**220**	**280**	<0.2	<0.5	<1	<1	<1	**2.2**
BH25	0.1-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.1**
BH26	0.7-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.5**
BH27	0.3-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH27	0.8-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH28	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH28	1.5-1.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH28	3-3.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH29	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH29 - [LAB_DUP]	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH29	3-3.45	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH29 - [LAB_DUP]	3-3.45	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
BH30	0-0.1	<25	**63**	**350**	**160**	<0.2	<0.5	<1	<1	<1	**1.5**
BH31	0.03-0.1	<25	<50	<100	**180**	<0.2	<0.5	<1	<1	<1	**2.2**
BH32	0.03-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH33	0.04-0.14	<25	<50	<100	**220**	<0.2	<0.5	<1	<1	<1	**1.2**
BH34	0.03-0.2	<25	<50	<100	**110**	<0.2	<0.5	<1	<1	<1	**0.4**
BH35	0-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.7**
SDUP1	0.04-0.14	<25	<50	**100**	**240**	<0.2	<0.5	<1	<1	<1	NA
SDUP2	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP2 - [LAB_DUP]	0-0.1	<25	NA	NA	NA	<0.2	<0.5	<1	<1	<1	NA
SDUP3	0.1-0.15	<25	<50	<100	**100**	<0.2	<0.5	<1	<1	<1	NA
SDUP4	0.03-0.4	<25	<50	**180**	**160**	<0.2	<0.5	<1	<1	<1	NA
SDUP6	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP6 - [LAB_DUP]	0.03-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP8	0.025-0.4	<25	<50	<100	**160**	<0.2	<0.5	<1	<1	<1	NA
SDUP9	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
SDUP10	0.05-0.23	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	NA
Total Number of Samples		82	81	81	81	82	82	82	82	82	64
Maximum Value		<PQL	63	470	790	<PQL	<PQL	<PQL	<PQL	<PQL	4.5

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

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TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HIL-D:Commercial/Industrial

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 reference	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**					**0.05**			**0.001**			**0.001**											**0.05**	**0.001**
3/01/2024	BH1	0.03-0.4	NA	<10	5,800	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH1	0.03-0.4	970.35	Chrysotile asbestos detected: Amosite asbestos detected: Crocidolite asbestos detected: Organic fibres detected	No asbestos detected	0.1818	Chrysotile:Amosite:Crocidolite	–	0.1764	<0.01	0.0182
3/01/2024	BH1	0.4-1.0	NA	<10	9,360	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH1	0.5-0.7	735.15	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
3/01/2024	BH1	1.0-1.7	NA	<10	4,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH1	1.5-1.7	668.77	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
3/01/2024	BH2	0.02-0.5	NA	<10	6,050	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH2	0.02-0.4	913.27	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	Chrysotile:Amosite:Crocidolite	–	0.0285	<0.01	0.0031
3/01/2024	BH2	0.5-1.5	NA	<10	7,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH2	0.5-0.95	705.71	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
3/01/2024	BH2	1.5-1.7	NA	<10	1,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH3	0.1-1.0	NA	<10	9,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH3	0.01-0.1	1052.51	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
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3/01/2024	BH3	1.1-2.0	NA	<10	3,330	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH4	0.02-0.3	NA	<10	4,530	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH4	0.02-0.3	931.81	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
3/01/2024	BH4	0.3-1.3	NA	<10	5,450	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH4	0.5-0.95	262.68	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
3/01/2024	BH4	1.3-1.6	NA	<10	5,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH4	1.6-1.95								-	-
3/01/2024	BH5	0.03-0.23	NA	<10	3,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH5	0.03-0.2	865.95	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
3/01/2024	BH5	0.23-0.5	NA	<10	2,160	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH5	0.4-0.5	785.19	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
3/01/2024	BH5	1.0-2.0	NA	<10	2,650	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH6	0.025-0.4	NA	<10	3,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH6	0.025-0.4	1292.62	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
3/01/2024	BH6	0.4-1.2	NA	10	10,020	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH6	0.5-0.95	693.15	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
5/01/2024	BH7	0.05-0.3	NA	<10	5,390	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH7	0.05-0.1	977.55	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
5/01/2024	BH7	0.3-1.2	NA	<10	1,060	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH7	0.3-0.5	338.48	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
4/12/2023	BH8	0.03-0.4	NA	<10L	5,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH8	0.03-0.4	874.67	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	Chrysotile	0.0444	–	<0.01	<0.001
4/12/2023	BH8	0.4-1.4	NA	<10L	5,930	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH8	0.5-0.95	558.31	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
4/12/2023	BH9	0.035-0.4	NA	<10L	3,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH9	0.035-0.08	885.83	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	Chrysotile	0.0117	–	<0.01	<0.001
4/12/2023	BH9	0.4-0.8	NA	<10L	3,560	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH9	0.4-0.5	650	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
4/12/2023	BH9	0.8-1.7	NA	<10L	4,730	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH9	1.2-1.3	778.07	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
4/12/2023	BH10	0.04-0.45	NA	<10L	6,650	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH10	0.45-1.45	NA	<10L	7,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH10	0.5-0.95	804.34	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
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3/01/2024	BH11	0.03-0.3	NA	<10	2,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH11	0.03-0.3	1105.92	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
3/01/2024	BH11	0.5-0.7	NA	<10	8,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH11	0.5-0.7	894.5	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
4/01/2024	BH12	0.05-0.5	NA	<10	3,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH12	0.05-0.23	680.52	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
4/01/2024	BH12	0.5-1.0	NA	<10	2,600	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/01/2024	BH12	1.0-1.4	NA	<10	2,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/01/2024	BH12	1.4-2.0	NA	<10	3,230	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH12	1.7-1.95	768.37	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
4/12/2023	BH13	0.03-0.4	NA	<10L	3,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH13	0.3-1.3	NA	10L	9,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH13	0.5-0.95	777.49	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
4/12/2023	BH13	1.3-2.2	NA	<10L	2,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH13	1.5-17	798.94	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
28/11/2023	BH14	0.02-0.3	NA	<10L	3,680	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH14	0.02-0.12	804.42	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
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27/11/2023	BH17	0.05-0.4	NA	<10L	3,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH17	0.05-0.15	966.28	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
27/11/2023	BH18	0.01-0.2	NA	<10L	5,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH18	0.01-0.15	1217.86	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
3/01/2024	BH19	0.02-0.4	NA	<10	4,900	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH19	0.02-0.4	1146.83	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
3/01/2024	BH19	0.4-1.4	NA	<10	6,740	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH19	0.5-0.95	791.5	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
3/01/2024	BH19	1.4-2.4	NA	<10	6,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH19	2.4-2.8	NA	<10	4,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH20	0.02-0.5	NA	10L	6,350	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH20	0.02-0.3	981.63	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
4/12/2023	BH20	0.5-1.5	NA	10L	11,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH20	0.5-0.95	940.18	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
4/12/2023	BH20	1.5-2.1	NA	<10L	6,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH21	0.04-0.5	NA	<10	2,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH21	0.04-0.15	895.02	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
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3/01/2024	BH21	0.5-1.0	NA	<10	3,050	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH21	0.7-0.95	643.72	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
3/01/2024	BH21	1.0-1.5	NA	<10	2,010	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3/01/2024	BH21	1.5-2.0	NA	<10	3,020	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/12/2023	BH22	0.04-0.2	NA	<10L	3,470	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH22	0.1-0.15	1002.17	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
4/12/2023	BH22	0.2-0.6	NA	<10L	5,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH22	0.3-0.5	851.65	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
3/01/2024	BH23	0.02-0.3	NA	<10	3,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH23	0.02-0.3	1115.32	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
3/01/2024	BH23	0.3-1.0	NA	<10	4,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH23	0.5-0.95	741.5	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
30/11/2023	BH24	0-0.1	No	10L	13,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH24	0-0.1	662.82	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
30/11/2023	BH24	0.2-1.0	NA	<10L	5,500	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235-A	BH24	0.8-0.95	505.62	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
4/12/2023	BH25	0.1-0.3	NA	<10L	3,270	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH25	0.1-0.3	769.11	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
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4/12/2023	BH27	0.14-0.5	NA	<10L	2,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH27	0.3-0.5	279.79	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
4/12/2023	BH27	0.5-1.0	NA	<10L	3,100	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695-A	BH27	0.8-0.95	647.17	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
5/12/2023	BH28	0-0.1	No	10L	10,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH28	0-0.1	634.94	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
5/12/2023	BH28	0.1-1.1	NA	<10L	2,550	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH28	1.1-2.1	NA	<10L	6,180	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH28	1.5-1.95	665.03	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
5/12/2023	BH28	2.1-3	NA	<10L	6,180	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH28	3-3.2	NA	<10L	3,200	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH29	0-0.1	No	<10L	8,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH29	0.1-1.0	NA	<10L	4,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH29	0.5-0.95	632.2	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
5/12/2023	BH29	1.0-2.0	NA	<10L	3,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/12/2023	BH29	2.0-3.0	NA	<10L	4,150	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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5/12/2023	BH30	0-0.1	No	10L	11,700	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH30	0-0.1	560.61	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
4/12/2023	BH31	0.03-0.1	NA	<10L	3,750	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH31	0.03-0.1	108.85	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
5/12/2023	BH32	0.03-0.3	NA	10L	4,000	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH32	0.03-0.3	1225.73	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
28/11/2023	BH33	0.04-0.2	NA	<10L	935	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339235	BH33	0.04-0.14	971.12	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
5/12/2023	BH34	0.03-0.2	NA	<10L	3,950	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	339695	BH34	0.03-0.2	1012.25	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
5/01/2024	BH35	0-0.15	No	10	10,300	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	341181	BH35	0-0.15	517.57	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**

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

Land Use Category				COMMERCIAL/INDUSTRIAL																		
							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	13	28	163	5	122	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																			
BH1	0.03-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**15**	**37**	**15**	**14**	**49**	<1	<0.1	<25	<50	**190**	**240**	<0.2	<0.5	<1	<1	**0.3**
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	<4	**11**	**38**	**12**	**9**	**38**	<1	<0.1	<25	<50	**160**	**240**	<0.2	<0.5	<1	<1	**0.06**
BH1	0.5-0.7	F:Silty Sand	Coarse	NA	NA	NA	**5**	**20**	**8**	**17**	**13**	**22**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH1	1.5-1.7	F: Silty Clay	Fine	NA	NA	NA	**7**	**21**	**20**	**24**	**21**	**27**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.08**
BH2	0.02-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**12**	**26**	**23**	**12**	**39**	<1	<0.1	<25	<50	**140**	**210**	<0.2	<0.5	<1	<1	**0.1**
BH2	0.5-0.95	F: Silty Sandy Clay	Fine	NA	NA	NA	<4	**11**	**19**	**12**	**6**	**23**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.08**
BH2	1.7-1.95	Silty Clay	Fine	NA	NA	NA	**6**	**23**	**2**	**14**	**1**	**2**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH3	0.01-0.1	F: Silty Gravelly Sand	Coarse	**8.1**	**22**	NA	<4	**13**	**74**	**4**	**78**	**42**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH3	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	**6**	**17**	**5**	**18**	**3**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH4	0.02-0.3	F:Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**11**	**63**	**3**	**59**	**38**	<1	<0.1	<25	<50	**170**	**510**	<0.2	<0.5	<1	<1	<0.05
BH4	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	**12**	**25**	**4**	**20**	**1**	**3**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	0.03-0.2	F: Gravelly Sand	Coarse	**8**	**16**	NA	<4	**10**	**60**	**3**	**86**	**39**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	Coarse	**8**	**16**	NA	<4	**11**	**71**	**3**	**100**	**46**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**14**	**18**	**22**	**17**	**29**	**16**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	2.5-2.8	Silty Clay	Fine	NA	NA	NA	**7**	**9**	**5**	**19**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH5	3.3-3.45	Siltstone	Fine	NA	NA	NA	<4	**4**	**4**	**16**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH6	0.025-0.4	F: Silty Gravelly Sand	Fine	**8.1**	**22**	NA	<4	**10**	**82**	**3**	**82**	**44**	<1	<0.1	<25	<50	**110**	**360**	<0.2	<0.5	<1	<1	<0.05
BH6	0.5-0.95	F: Silty Clay	Coarse	NA	NA	NA	**8**	**15**	**10**	**17**	**9**	**6**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH7	0.05-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	<4	**10**	**73**	**2**	**59**	**34**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH7	0.3-0.5	F: Silty Clay	Coarse	NA	NA	NA	**8**	**21**	**6**	**16**	**6**	**6**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH8	0.03-0.4	F: Silty Sand	Coarse	NA	NA	NA	**23**	**16**	**39**	**25**	**13**	**40**	<1	<0.1	<25	<50	**320**	**300**	<0.2	<0.5	<1	<1	**1.1**
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	**15**	**15**	**68**	**24**	**11**	**41**	<1	<0.1	<25	<50	**270**	**290**	<0.2	<0.5	<1	<1	**0.98**
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	Coarse	NA	NA	NA	**7**	**15**	**28**	**27**	**10**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH8	0.5-0.95	F: Gravelly Clay	Fine	NA	NA	NA	**8**	**17**	**15**	**19**	**10**	**14**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	Fine	NA	NA	NA	**6**	**19**	**17**	**22**	**14**	**20**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH9	0.035-0.08	F: Gravelly Silty Sand	Coarse	NA	NA	NA	<4	**15**	**20**	**47**	**9**	**35**	<1	NA	<25	<50	**310**	**280**	<0.2	<0.5	<1	<1	**0.97**
BH9	0.4-0.5	F: Gravelly Silty Sand	Coarse	NA	NA	NA	**5**	**15**	**11**	**24**	**6**	**39**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
BH9	1.2-1.3	F: Silty Clay	Fine	NA	NA	NA	**5**	**12**	**11**	**19**	**6**	**15**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.05**
BH10	0.5-0.95	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	**9**	**13**	**15**	**18**	**4**	**17**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**1.6**
BH10	1.5-1.7	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	**9**	**18**	**14**	**23**	**6**	**26**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH11	0.03-0.3	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**9**	**51**	**3**	**45**	**29**	<1	<0.1	<25	<50	**310**	**790**	<0.2	<0.5	<1	<1	<0.05
BH11	0.5-0.7	F: Silty Clay	Coarse	NA	NA	NA	**9**	**25**	**14**	**16**	**15**	**13**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH11	0.7-0.95	Silty Clay	Coarse	NA	NA	NA	**9**	**17**	**2**	**18**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH12	0.05-0.23	F: Gravelly Sand	Coarse	NA	NA	NA	<4	**12**	**51**	**2**	**57**	**33**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	Coarse	**8**	**16**	NA	<4	**12**	**73**	**3**	**67**	**39**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH12	1.7-1.95	F: Silty Clay	Coarse	NA	NA	NA	**7**	**27**	**15**	**20**	**25**	**16**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH13	0.5-0.95	F: Silty Gravelly Clay	Coarse	NA	NA	NA	**6**	**11**	**16**	**13**	**12**	**10**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH13	1.5-1.7	F: Silty Gravelly Clay	Coarse	NA	NA	NA	<4	**9**	**6**	**16**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH14	0.02-0.12	F: Gravelly Silty Sand	Coarse	**8.2**	**20**	NA	<4	**10**	**76**	**2**	**61**	**41**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	Coarse	NA	NA	NA	<4	**9**	**53**	**2**	**57**	**31**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH16	0.01-0.2	F: Sandy Gravel	Coarse	**8.1**	**20**	NA	**6**	**10**	**65**	**5**	**64**	**38**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH17	0.05-0.15	F: Sandy Gravel	Coarse	NA	NA	NA	<4	**9**	**71**	**3**	**48**	**37**	<1	NA	<25	<50	**310**	**480**	<0.2	<0.5	<1	<1	<0.05
BH18	0.01-0.15	F: Gravelly Silty Sand	Coarse	**8.1**	**23**	NA	<4	**11**	**64**	**12**	**63**	**84**	<1	<0.1	<25	<50	<100	**210**	<0.2	<0.5	<1	<1	<0.05
BH19	0.02-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	<4	**10**	**64**	**3**	**54**	**35**	<1	<0.1	<25	<50	**210**	**600**	<0.2	<0.5	<1	<1	<0.05
BH19	0.5-0.95	F: Silty Clay	Coarse	NA	NA	NA	**11**	**9**	**15**	**17**	**7**	**8**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH20	0.02-0.3	F: Silty Sand	Coarse	NA	NA	NA	<4	**9**	**39**	**8**	**45**	**29**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH20	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	<4	**5**	**10**	**12**	**6**	**4**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH21	0.04-0.15	F: Silty Clay	Coarse	NA	NA	NA	<4	**10**	**49**	**5**	**48**	**30**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.09**
BH21	0.7-0.95	F: Silty Clay	Coarse	NA	NA	NA	**4**	**12**	**32**	**12**	**36**	**21**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH21	2.1-2.5	Silty Clay	Coarse	NA	NA	NA	**8**	**16**	**5**	**20**	**2**	**4**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH22	0.1-0.15	F: Gravelly Sand	Coarse	**7.9**	**13**	NA	<4	**11**	**75**	**3**	**72**	**36**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH22	0.3-0.5	F: Silty Clay	Fine	NA	NA	NA	**6**	**17**	**12**	**20**	**12**	**16**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.4**
BH23	0.02-0.3	F: Silty Gravelly Sand	Coarse	**8.1**	**22**	NA	<4	**13**	**69**	**4**	**69**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH23	0.5-0.95	F: Sand	Coarse	NA	NA	NA	**12**	**7**	**3**	**3**	**4**	**8**	<1	NA	<25	<50	**470**	<100	<0.2	<0.5	<1	<1	<0.05
BH24	0-0.1	F: Silty Sand	Coarse	NA	NA	NA	<4	**14**	**14**	**16**	**6**	**33**	<1	<0.1	<25	<50	**130**	**200**	<0.2	<0.5	<1	<1	<0.05
BH24	0.8-0.95	F: Silty Clay	Fine	NA	NA	NA	**8**	**18**	**5**	**21**	**5**	**11**	<1	<0.1	<25	<50	**220**	**280**	<0.2	<0.5	<1	<1	**0.1**
BH25	0.1-0.3	F: Silty Clay	Fine	NA	NA	NA	**7**	**13**	**5**	**19**	**5**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH26	0.7-1	XW Siltstone	Fine	NA	NA	NA	<4	**7**	**51**	**14**	**4**	**8**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH27	0.3-0.5	F: Gravelly Silty Sand	Coarse	NA	NA	NA	**5**	**19**	**19**	**20**	**13**	**35**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH27	0.8-0.95	F: Silty Clay	Fine	NA	NA	NA	**10**	**35**	**7**	**23**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH28	0-0.1	F: Clayey Sand	Coarse	NA	NA	NA	**6**	**11**	**14**	**38**	**6**	**56**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH28	1.5-1.95	F: Silty Clay	Fine	NA	NA	NA	**6**	**18**	**19**	**39**	**10**	**43**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH28	3-3.2	F: Silty Clay	Fine	NA	NA	NA	**12**	**33**	**28**	**47**	**14**	**65**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.4**
BH29	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	**8**	**22**	**7**	**24**	**4**	**25**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	Fine	NA	NA	NA	**35**	**41**	**15**	**33**	**20**	**60**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH29 - [LAB_TRIP]	0.5-0.95	Triplicate	Fine	NA	NA	NA	**17**	**31**	**9**	**25**	**13**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH29	3-3.45	F: Silty Clay	Fine	NA	NA	NA	**4**	**16**	**14**	**51**	**7**	**56**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	Fine	NA	NA	NA	<4	**39**	**30**	**110**	**30**	**99**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH30	0-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	**6**	**14**	**18**	**52**	**6**	**55**	<1	NA	<25	**63**	**350**	**160**	<0.2	<0.5	<1	<1	<0.05
BH31	0.03-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	<4	**9**	**58**	**5**	**57**	**47**	<1	NA	<25	<50	<100	**180**	<0.2	<0.5	<1	<1	<0.05
BH32	0.03-0.3	F: Gravelly Sand	Coarse	**8.2**	**22**	NA	<4	**11**	**66**	**4**	**76**	**43**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH33	0.04-0.14	F: Gravelly Silty Sand	Coarse	**8**	**22**	NA	<4	**10**	**64**	**4**	**74**	**40**	<1	<0.1	<25	<50	<100	**220**	<0.2	<0.5	<1	<1	<0.05
BH34	0.03-0.2	F: Gravelly Sand	Coarse	**7.8**	**14**	NA	<4	**12**	**68**	**4**	**75**	**48**	<1	NA	<25	<50	<100	**110**	<0.2	<0.5	<1	<1	<0.05
BH35	0-0.15	F: Silty Clay	Coarse	NA	NA	NA	**5**	**12**	**19**	**52**	**9**	**82**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
SDUP1	0.04-0.14	Duplicate of BH33	Coarse	NA	NA	NA	<4	**10**	**64**	**4**	**60**	**36**	<1	<0.1	<25	<50	**100**	**240**	<0.2	<0.5	<1	<1	<0.05
SDUP2	0-0.1	Duplicate of BH24	Coarse	NA	NA	NA	<4	**12**	**13**	**17**	**7**	**33**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1	NA	<25	NA	NA	NA	<0.2	<0.5	<1	<1	NA
SDUP3	0.1-0.15	Duplicate of BH22	Coarse	**7.9**	**13**	NA	<4	**12**	**50**	**3**	**61**	**30**	<1	NA	<25	<50	<100	**100**	<0.2	<0.5	<1	<1	<0.05
SDUP4	0.03-0.4	Duplicate of BH8	Coarse	NA	NA	NA	**6**	**15**	**25**	**32**	**10**	**43**	<1	NA	<25	<50	**180**	**160**	<0.2	<0.5	<1	<1	**0.99**
SDUP6	0.03-0.2	Duplicate of BH5	Coarse	**8**	**16**	NA	<4	**10**	**74**	**3**	**100**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	Coarse	**8**	**16**	NA	<4	**10**	**69**	**3**	**93**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP8	0.025-0.4	Duplicate of BH6	Coarse	**8.1**	**22**	NA	<4	**9**	**56**	<1	**79**	**38**	<1	<0.1	<25	<50	<100	**160**	<0.2	<0.5	<1	<1	<0.05
SDUP8 (LAB_DUP)	0.025-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.05
SDUP9	0.5-0.95	Duplicate of BH2	Coarse	NA	NA	NA	<4	**15**	**7**	**11**	**8**	**18**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP10	0.05-0.23	Duplicate of BH12	Coarse	**8**	**16**	NA	<4	**10**	**59**	**2**	**69**	**39**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
Total Number of Samples				18	18	0	83	83	83	83	83	83	82	53	82	81	81	81	82	82	82	82	82
Maximum Value				8.2	23	NA	35	41	82	110	100	99	<PQL	<PQL	<PQL	63	470	790	<PQL	<PQL	<PQL	<PQL	1.6

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	0.03-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH1	0.5-0.7	F:Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH1	1.5-1.7	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH2	0.02-0.4	F: Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH2	0.5-0.95	F: Silty Sandy Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH2	1.7-1.95	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH3	0.01-0.1	F: Silty Gravelly Sand	Coarse	8.1	22	NA	160	320	350	2000	600	1600	370	640	215	170	1700	3300	75	135	165	180	72
BH3	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH4	0.02-0.3	F:Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH4	0.5-0.95	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH5	0.03-0.2	F: Gravelly Sand	Coarse	8	16	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	Coarse	8	16	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH5	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH5	2.5-2.8	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH5	3.3-3.45	Siltstone	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH6	0.025-0.4	F: Silty Gravelly Sand	Fine	8.1	22	NA	160	320	350	2000	600	1600	370	640	215	170	2500	6600	95	135	185	95	72
BH6	0.5-0.95	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH7	0.05-0.1	F: Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH7	0.3-0.5	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH8	0.03-0.4	F: Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	--	--	--	--	--	--	--	--	--	--	--
BH8	0.5-0.95	F: Gravelly Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH9	0.035-0.08	F: Gravelly Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH9	0.4-0.5	F: Gravelly Silty Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH9	1.2-1.3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH10	0.5-0.95	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH10	1.5-1.7	F: Sandy Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH11	0.03-0.3	F: Silty Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH11	0.5-0.7	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH11	0.7-0.95	Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH12	0.05-0.23	F: Gravelly Sand	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	Coarse	8	16	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH12	1.7-1.95	F: Silty Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH13	0.5-0.95	F: Silty Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	1700	3300	75	135	165	180	72
BH13	1.5-1.7	F: Silty Gravelly Clay	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH14	0.02-0.12	F: Gravelly Silty Sand	Coarse	8.2	20	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180	72
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	Coarse	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	1700	3300	75	135	165	180	72
BH16	0.01-0.2	F: Sandy Gravel	Coarse	8.1	20	NA	160	320	330	2000	460	1200	370	640	215	170	1700	3300	75	135	165	180

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	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	PCBs	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	0.03-0.4	F: Silty Gravelly Sand	<4	<0.4	**15**	**37**	**15**	<0.1	**14**	**49**	**3.5**	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	Detected
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<4	<0.4	**11**	**38**	**12**	<0.1	**9**	**38**	**2.4**	**0.06**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	NA
BH1 - [LAB_TRIP]	0.03-0.4	Laboratory Triplicate	<4	<0.4	**10**	**96**	**13**	<0.1	**10**	**46**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH1	0.5-0.7	F:Silty Sand	**5**	<0.4	**20**	**8**	**17**	<0.1	**13**	**22**	**0.1**	<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	1.5-1.7	F: Silty Clay	**7**	<0.4	**21**	**20**	**24**	<0.1	**21**	**27**	**0.3**	**0.08**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH2	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**12**	**26**	**23**	<0.1	**12**	**39**	**1.4**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**130**	**130**	<0.2	<0.5	<1	<1	Detected
BH2	0.5-0.95	F: Silty Sandy Clay	<4	<0.4	**11**	**19**	**12**	<0.1	**6**	**23**	**0.5**	**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
BH2	1.7-1.95	Silty Clay	**6**	<0.4	**23**	**2**	**14**	<0.1	**1**	**2**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH3	0.01-0.1	F: Silty Gravelly Sand	<4	<0.4	**13**	**74**	**4**	<0.1	**78**	**42**	<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
BH3	0.5-0.95	F: Silty Clay	**6**	<0.4	**17**	**5**	**18**	<0.1	**3**	**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
BH4	0.02-0.3	F:Silty Gravelly Sand	<4	<0.4	**11**	**63**	**3**	<0.1	**59**	**38**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**300**	**300**	<0.2	<0.5	<1	<1	Not Detected
BH4	0.5-0.95	F: Silty Clay	**12**	<0.4	**25**	**4**	**20**	<0.1	**1**	**3**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH5	0.03-0.2	F: Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**86**	**39**	<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
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**11**	**71**	**3**	<0.1	**100**	**46**	<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
BH5	0.4-0.5	F: Silty Clay	**14**	<0.4	**18**	**22**	**17**	<0.1	**29**	**16**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH5	2.5-2.8	Silty Clay	**7**	<0.4	**9**	**5**	**19**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH5	3.3-3.45	Siltstone	<4	<0.4	**4**	**4**	**16**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH6	0.025-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**82**	**3**	<0.1	**82**	**44**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**200**	**200**	<0.2	<0.5	<1	<1	Not Detected
BH6	0.5-0.95	F: Silty Clay	**8**	<0.4	**15**	**10**	**17**	<0.1	**9**	**6**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH7	0.05-0.1	F: Gravelly Sand	<4	<0.4	**10**	**73**	**2**	<0.1	**59**	**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	Not Detected
BH7	0.3-0.5	F: Silty Clay	**8**	<0.4	**21**	**6**	**16**	<0.1	**6**	**6**	<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
BH8	0.03-0.4	F: Silty Sand	**23**	<0.4	**16**	**39**	**25**	<0.1	**13**	**40**	**13**	**1.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	**170**	**260**	**430**	<0.2	<0.5	<1	<1	Detected
BH8 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	**15**	<0.4	**15**	**68**	**24**	<0.1	**11**	**41**	**12**	**0.98**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	**140**	**230**	**370**	<0.2	<0.5	<1	<1	NA
BH8 - [LAB_TRIP]	0.03-0.4	Triplicate	**7**	<0.4	**15**	**28**	**27**	<0.1	**10**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH8	0.5-0.95	F: Gravelly Clay	**8**	<0.4	**17**	**15**	**19**	<0.1	**10**	**14**	<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
BH8 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**6**	<0.4	**19**	**17**	**22**	<0.1	**14**	**20**	<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
BH9	0.035-0.08	F: Gravelly Silty Sand	<4	<0.4	**15**	**20**	**47**	<0.1	**9**	**35**	**16**	**0.97**	NA	NA	NA	NA	NA	<25	<50	**160**	**240**	**400**	<0.2	<0.5	<1	<1	Detected
BH9	0.4-0.5	F: Gravelly Silty Sand	**5**	<0.4	**15**	**11**	**24**	<0.1	**6**	**39**	**3.2**	**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
BH9	1.2-1.3	F: Silty Clay	**5**	<0.4	**12**	**11**	**19**	<0.1	**6**	**15**	**0.5**	**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
BH10	0.5-0.95	F: Sandy Gravelly Clay	**9**	<0.4	**13**	**15**	**18**	<0.1	**4**	**17**	**21**	**1.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH10	1.5-1.7	F: Sandy Gravelly Clay	**9**	<0.4	**18**	**14**	**23**	<0.1	**6**	**26**	**0.4**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH11	0.03-0.3	F: Silty Gravelly Sand	<4	<0.4	**9**	**51**	**3**	<0.1	**45**	**29**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**460**	**460**	<0.2	<0.5	<1	<1	Not Detected
BH11	0.5-0.7	F: Silty Clay	**9**	<0.4	**25**	**14**	**16**	<0.1	**15**	**13**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH11	0.7-0.95	Silty Clay	**9**	<0.4	**17**	**2**	**18**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH12	0.05-0.23	F: Gravelly Sand	<4	<0.4	**12**	**51**	**2**	<0.1	**57**	**33**	<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
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<4	<0.4	**12**	**73**	**3**	<0.1	**67**	**39**	<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
BH12	1.7-1.95	F: Silty Clay	**7**	<0.4	**27**	**15**	**20**	<0.1	**25**	**16**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH13	0.5-0.95	F: Silty Gravelly Clay	**6**	<0.4	**11**	**16**	**13**	<0.1	**12**	**10**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH13	1.5-1.7	F: Silty Gravelly Clay	<4	<0.4	**9**	**6**	**16**	<0.1	**2**	**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
BH14	0.02-0.12	F: Gravelly Silty Sand	<4	<0.4	**10**	**76**	**2**	<0.1	**61**	**41**	<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
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<4	<0.4	**9**	**53**	**2**	<0.1	**57**	**31**	<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
BH16	0.01-0.2	F: Sandy Gravel	**6**	<0.4	**10**	**65**	**5**	<0.1	**64**	**38**	<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
BH17	0.05-0.15	F: Sandy Gravel	<4	<0.4	**9**	**71**	**3**	<0.1	**48**	**37**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	**370**	**370**	<0.2	<0.5	<1	<1	Not Detected
BH18	0.01-0.15	F: Gravelly Silty Sand	<4	<0.4	**11**	**64**	**12**	<0.1	**63**	**84**	<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
BH19	0.02-0.4	F: Silty Gravelly Sand	<4	<0.4	**10**	**64**	**3**	<0.1	**54**	**35**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**350**	**350**	<0.2	<0.5	<1	<1	Not Detected
BH19	0.5-0.95	F: Silty Clay	**11**	<0.4	**9**	**15**	**17**	<0.1	**7**	**8**	<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
BH20	0.02-0.3	F: Silty Sand	<4	<0.4	**9**	**39**	**8**	<0.1	**45**	**29**	<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
BH20	0.5-0.95	F: Silty Clay	<4	<0.4	**5**	**10**	**12**	<0.1	**6**	**4**	<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
BH21	0.04-0.15	F: Silty Clay	<4	<0.4	**10**	**49**	**5**	<0.1	**48**	**30**	**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	Not Detected
BH21	0.7-0.95	F: Silty Clay	**4**	<0.4	**12**	**32**	**12**	<0.1	**36**	**21**	**0.66**	**0.1**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH21	2.1-2.5	Silty Clay	**8**	<0.4	**16**	**5**	**20**	<0.1	**2**	**4**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH22	0.1-0.15	F: Gravelly Sand	<4	<0.4	**11**	**75**	**3**	<0.1	**72**	**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
BH22	0.3-0.5	F: Silty Clay	**6**	<0.4	**17**	**12**	**20**	<0.1	**12**	**16**	**3.5**	**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
BH23	0.02-0.3	F: Silty Gravelly Sand	<4	<0.4	**13**	**69**	**4**	<0.1	**69**	**43**	<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
BH23	0.5-0.95	F: Sand	**12**	<0.4	**7**	**3**	**3**	<0.1	**4**	**8**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	**340**	**160**	**500**	<0.2	<0.5	<1	<1	Not Detected
BH24	0-0.1	F: Silty Sand	<4	<0.4	**14**	**14**	**16**	<0.1	**6**	**33**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**130**	**130**	<0.2	<0.5	<1	<1	Not Detected
BH24	0.8-0.95	F: Silty Clay	**8**	<0.4	**18**	**5**	**21**	<0.1	**5**	**11**	**0.3**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	**110**	**190**	**300**	<0.2	<0.5	<1	<1	Not Detected
BH25	0.1-0.3	F: Silty Clay	**7**	<0.4	**13**	**5**	**19**	<0.1	**5**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH26	0.7-1	XW Siltstone	<4	<0.4	**7**	**51**	**14**	<0.1	**4**	**8**	<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
BH27	0.3-0.5	F: Gravelly Silty Sand	**5**	<0.4	**19**	**19**	**20**	<0.1	**13**	**35**	**0.2**	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH27	0.8-0.95	F: Silty Clay	**10**	<0.4	**35**	**7**	**23**	<0.1	**2**	**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
BH28	0-0.1	F: Clayey Sand	**6**	<0.4	**11**	**14**	**38**	<0.1	**6**	**56**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH28	1.5-1.95	F: Silty Clay	**6**	<0.4	**18**	**19**	**39**	<0.1	**10**	**43**	**1.2**	**0.2**	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH28	3-3.2	F: Silty Clay	**12**	<0.4	**33**	**28**	**47**	**0.2**	**14**	**65**	**4.5**	**0.4**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH29	0.5-0.95	F: Silty Clay	**8**	<0.4	**22**	**7**	**24**	<0.1	**4**	**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
BH29 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**35**	<0.4	**41**	**15**	**33**	<0.1	**20**	**60**	<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
BH29 - [LAB_TRIP]	0.5-0.95	Triplicate	**17**	<0.4	**31**	**9**	**25**	<0.1	**13**	**39**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH29	3-3.45	F: Silty Clay	**4**	<0.4	**16**	**14**	**51**	<0.1	**7**	**56**	<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
BH29 - [LAB_DUP]	3-3.45	Laboratory Duplicate	<4	**2**	**39**	**30**	**110**	<0.1	**30**	**99**	<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
BH30	0-0.1	F: Gravelly Sand	**6**	<0.4	**14**	**18**	**52**	<0.1	**6**	**55**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	**220**	**270**	**490**	<0.2	<0.5	<1	<1	Not Detected
BH31	0.03-0.1	F: Gravelly Sand	<4	<0.4	**9**	**58**	**5**	<0.1	**57**	**47**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH32	0.03-0.3	F: Gravelly Sand	<4	<0.4	**11**	**66**	**4**	<0.1	**76**	**43**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH33	0.04-0.14	F: Gravelly Silty Sand	<4	<0.4	**10**	**64**	**4**	<0.1	**74**	**40**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**140**	**140**	<0.2	<0.5	<1	<1	Not Detected
BH34	0.03-0.2	F: Gravelly Sand	<4	<0.4	**12**	**68**	**4**	<0.1	**75**	**48**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH35	0-0.15	F: Silty Clay	**5**	<0.4	**12**	**19**	**52**	<0.1	**9**	**82**	**0.4**	**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
SDUP1	0.04-0.14	Duplicate of BH33	<4	<0.4	**10**	**64**	**4**	<0.1	**60**	**36**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	NA
SDUP2	0-0.1	Duplicate of BH24	<4	<0.4	**12**	**13**	**17**	<0.1	**7**	**33**	<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
SDUP2 - [LAB_DUP]	0-0.1	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<25	NA	NA	NA	NA	<0.2	<0.5	<1	<1	NA
SDUP3	0.1-0.15	Duplicate of BH22	<4	<0.4	**12**	**50**	**3**	<0.1	**61**	**30**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP4	0.03-0.4	Duplicate of BH8	**6**	<0.4	**15**	**25**	**32**	<0.1	**10**	**43**	**10**	**0.99**	NA	NA	NA	NA	NA	<25	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	NA
SDUP6	0.03-0.2	Duplicate of BH5	<4	<0.4	**10**	**74**	**3**	<0.1	**100**	**43**	<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
SDUP6 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<4	<0.4	**10**	**69**	**3**	<0.1	**93**	**43**	<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
SDUP8	0.025-0.4	Duplicate of BH6	<4	<0.4	**9**	**56**	<1	<0.1	**79**	**38**	<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
SDUP8 (LAB_DUP)	0.025-0.4	Duplicate of BH6	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP9	0.5-0.95	Duplicate of BH2	<4	<0.4	**15**	**7**	**11**	<0.1	**8**	**18**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP10	0.05-0.23	Duplicate of BH12	<4	<0.4	**10**	**59**	**2**	<0.1	**69**	**39**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
Total Number of Samples			84	84	84	84	84	84	84	84	82	82	53	53	53	53	53	82	81	81	81	81	82	82	82	82	58
Maximum Value			35	2	41	96	110	0.2	100	99	21	1.6	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	340	460	500	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the CT1 — **VALUE**
Concentration above SCC1 — **VALUE**
Concentration above the SCC2 — **VALUE**
Concentration above PQL — **Bold**
Asbestos detected — **Detected**

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

			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	B(a)P
PQL - Envirolab Services			0.05	0.01	0.01	0.01	0.03	0.0005	0.02	0.02	0.001
TCLP1 - General Solid Waste			5	1	5	NSL	5	0.2	2	NSL	0.04
TCLP2 - Restricted Solid Waste			20	4	20	NSL	20	0.8	8	NSL	0.16
TCLP3 - Hazardous Waste			>20	>4	>20	NSL	>20	>0.8	>8	NSL	>0.16
Sample Reference	**Sample Depth**	**Sample Description**									
BH1	0.03-0.4	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.01**	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<0.05	<0.01	<0.01	**0.01**	<0.03	<0.0005	<0.02	**0.03**	<0.0001
BH1	0.5-0.7	F:Silty Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.08**	<0.0001
BH1	1.5-1.7	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.02**	**0.03**	<0.0001
BH2	0.02-0.4	F: Silty Gravelly Sand	<0.05	<0.01	**0.02**	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH2	0.5-0.95	F: Silty Sandy Clay	<0.05	<0.01	<0.01	**0.02**	**0.08**	<0.0005	**0.03**	**0.2**	<0.0001
BH3	0.01-0.1	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.24**	**0.02**	<0.0001
BH3	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH4	0.02-0.3	F:Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH4	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH5	0.03-0.2	F: Gravelly Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.3**	**0.03**	<0.0001
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.3**	**0.03**	<0.0001
BH5	0.4-0.5	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.04**	**0.03**	<0.0001
BH6	0.025-0.4	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	**0.04**	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH6	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH7	0.05-0.1	F: Gravelly Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH7	0.3-0.5	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH8	0.03-0.4	F: Silty Sand	<0.05	<0.01	**0.01**	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH8	0.5-0.95	F: Gravelly Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH8 [LAB_DUP]	0.5-0.95	Laboratory Duplicate	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH9	0.035-0.08	F: Gravelly Silty Sand	<0.05	<0.01	**0.02**	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH9 - [LAB_DUP]	0.035-0.08	Laboratory Duplicate	<0.05	<0.01	**0.02**	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH9	0.4-0.5	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.01**	<0.03	<0.0005	<0.02	**0.02**	<0.0001
BH9	1.2-1.3	F: Silty Clay	<0.05	<0.01	**0.02**	<0.01	<0.03	<0.0005	<0.02	**0.09**	<0.0001
BH10	0.5-0.95	F: Sandy Gravelly Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH10	1.5-1.7	F: Sandy Gravelly Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH11	0.03-0.3	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.08**	<0.02	<0.0001
BH11	0.5-0.7	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.02**	<0.02	<0.0001
BH12	0.05-0.23	F: Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.1**	<0.02	<0.0001
BH12	1.7-1.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.04**	<0.02	<0.0001
BH13	0.5-0.95	F: Silty Gravelly Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH13	1.5-17	F: Silty Gravelly Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH14	0.02-0.12	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.07**	**0.04**	<0.0001
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	**0.03**	<0.02	NA
BH16	0.01-0.2	F: Sandy Gravel	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.08**	**0.03**	<0.0001
BH17	0.05-0.15	F: Sandy Gravel	<0.05	<0.01	<0.01	**0.04**	<0.03	<0.0005	**0.1**	**0.04**	<0.0001
BH18	0.01-0.15	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.1**	**0.04**	<0.0001
BH19	0.02-0.4	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.09**	<0.02	<0.0001
BH19	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.02**	<0.02	<0.0001
BH20	0.02-0.3	F: Silty Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH20	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.03**	<0.02	<0.0001
BH21	0.04-0.15	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.03**	<0.02	<0.0001
BH21	0.7-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH22	0.1-0.15	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.06**	NA	<0.0001
BH22	0.3-0.5	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH23	0.02-0.3	F: Silty Gravelly Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	**0.08**	<0.02	<0.0001
BH23	0.5-0.95	F: Sand	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH23 - [LAB_DUP]	0.5-0.95	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.0001
BH24	0-0.1	F: Silty Sand	<0.05	<0.01	<0.01	**0.02**	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH24	0.8-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH25	0.1-0.3	F: Silty Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH26	0.7-1	XW Siltstone	<0.05	<0.01	<0.01	**0.42**	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH27	0.3-0.5	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH27	0.8-0.95	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH28	0-0.1	F: Clayey Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH28	1.5-1.95	F: Silty Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH28	3-3.2	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	<0.0001
BH29	0.5-0.95	F: Silty Clay	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH29	3-3.45	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.04**	<0.0001
BH29 [LAB_DUP]	3-3.45	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.0001
BH30	0-0.1	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	<0.02	NA	<0.0001
BH31	0.03-0.1	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.03**	NA	<0.0001
BH32	0.03-0.3	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.04**	NA	<0.0001
BH33	0.04-0.14	F: Gravelly Silty Sand	<0.05	<0.01	<0.01	**0.03**	<0.03	<0.0005	**0.08**	**0.03**	<0.0001
BH34	0.03-0.2	F: Gravelly Sand	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.03**	NA	<0.0001
BH34 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<0.05	<0.01	<0.01	NA	<0.03	<0.0005	**0.02**	NA	NA
BH35	0-0.15	F: Silty Clay	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	**0.1**	<0.0001
Total Number of samples			66	66	66	49	66	66	66	49	66
Maximum Value			<PQL	<PQL	0.02	0.42	0.08	<PQL	0.3	0.2	<PQL

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

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TABLE S9
SOIL LABORATORY ASLP RESULTS
All data in µg/L unless stated otherwise

			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	B(a)P
PQL - Envirolab Services			1	0.1	1	1	1	0.05	1	1	0.1
SAC			NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**									
BH1	0.03-0.4	F: Silty Gravelly Sand	<1	<0.1	**3**	**2**	<1	<0.05	<1	**3**	<0.1
BH1 - [LAB_DUP]	0.03-0.4	Laboratory Duplicate	<1	<0.1	**3**	**2**	<1	<0.05	<1	**3**	<0.1
BH1	0.5-0.7	F:Silty Sand	**6**	<0.1	<1	**3**	**1**	<0.05	<1	**4**	<0.1
BH1	1.5-1.7	F: Silty Clay	**3**	<0.1	**5**	**4**	**5**	<0.05	**2**	**5**	<0.1
BH2	0.02-0.4	F: Silty Gravelly Sand	<1	<0.1	**5**	<1	<1	<0.05	<1	**3**	<0.1
BH2 - [LAB_DUP]	0.02-0.4	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	<0.1
BH2	0.5-0.95	F: Silty Sandy Clay	**9**	<0.1	**2**	**4**	**7**	<0.05	**2**	**9**	<0.1
BH3	0.01-0.1	F: Silty Gravelly Sand	<1	<0.1	<1	**2**	<1	<0.05	**3**	**5**	<0.1
BH3	0.5-0.95	F: Silty Clay	<1	<0.1	**5**	**2**	**4**	<0.05	<1	**5**	<0.1
BH4	0.02-0.3	F:Silty Gravelly Sand	<1	<0.1	**3**	**4**	**2**	<0.05	**4**	**4**	<0.1
BH4	0.5-0.95	F: Silty Clay	**1**	<0.1	**5**	**1**	**3**	<0.05	<1	**5**	<0.1
BH5	0.03-0.2	F: Gravelly Sand	<1	<0.1	<1	**2**	<1	<0.05	**4**	**5**	<0.1
BH5 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<1	<0.1	<1	**2**	<1	<0.05	**4**	**4**	NA
BH5	0.4-0.5	F: Silty Clay	**3**	<0.1	**6**	**4**	**7**	<0.05	**3**	**5**	<0.1
BH6	0.025-0.4	F: Silty Gravelly Sand	<1	<0.1	<1	**3**	<1	<0.05	**4**	**4**	<0.1
BH6	0.5-0.95	F: Silty Clay	<1	<0.1	**4**	<1	**5**	<0.05	**1**	**4**	<0.1
BH7	0.05-0.1	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**3**	<0.1
BH7	0.3-0.5	F: Silty Clay	<1	<0.1	<1	<1	<1	<0.05	<1	**4**	<0.1
BH8	0.03-0.4	F: Silty Sand	<1	<0.1	**5**	**2**	<1	<0.05	<1	**1**	<0.1
BH8	0.5-0.95	F: Gravelly Clay	**7**	**0.2**	**25**	**13**	**24**	<0.05	**10**	**16**	<0.1
BH8 [LAB_DUP]	0.5-0.95	Laboratory Duplicate	**8**	**0.2**	**33**	**15**	**30**	<0.05	**13**	**21**	<0.1
BH9	0.035-0.08	F: Gravelly Silty Sand	**2**	<0.1	**9**	**2**	<1	<0.05	<1	<1	<0.1
BH9 - [LAB_DUP]	0.035-0.08	Laboratory Duplicate	**2**	<0.1	**9**	**2**	<1	<0.05	<1	**2**	NA
BH9	0.4-0.5	F: Gravelly Silty Sand	**4**	<0.1	**4**	**7**	**7**	<0.05	**1**	<1	<0.1
BH9	1.2-1.3	F: Silty Clay	**6**	**0.2**	**20**	**19**	**39**	<0.05	**4**	**20**	<0.1
BH10	0.5-0.95	F: Sandy Gravelly Clay	**14**	**0.4**	**88**	**18**	**55**	<0.05	**15**	**31**	<0.1
BH10	1.5-1.7	F: Sandy Gravelly Clay	**3**	**0.1**	**6**	**3**	**4**	<0.05	**1**	**3**	<0.1
BH11	0.03-0.3	F: Silty Gravelly Sand	<1	<0.1	<1	**1**	<1	<0.05	<1	**4**	<0.1
BH11	0.5-0.7	F: Silty Clay	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH12	0.05-0.23	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	**1**	**4**	<0.1
BH12 - [LAB_DUP]	0.05-0.23	Laboratory Duplicate	<1	<0.1	<1	**1**	<1	<0.05	**1**	**3**	<0.1
BH12	1.7-1.95	F: Silty Clay	<1	<0.1	**3**	**1**	**4**	<0.05	<1	**3**	<0.1
BH13	0.5-0.95	F: Silty Gravelly Clay	<1	<0.1	**3**	<1	**3**	<0.05	<1	**1**	<0.1
BH13	1.5-1.7	F: Silty Gravelly Clay	**3**	**0.1**	**12**	**2**	**11**	<0.05	**2**	**3**	<0.1
BH14	0.02-0.12	F: Gravelly Silty Sand	<1	<0.1	<1	**2**	<1	<0.05	**3**	**3**	<0.1
BH14 - [LAB_DUP]	0.02-0.12	Laboratory Duplicate	<1	<0.1	<1	<1	<1	<0.05	**1**	**1**	NA
BH16	0.01-0.2	F: Sandy Gravel	<1	<0.1	<1	<1	<1	<0.05	<1	**1**	<0.1
BH17	0.05-0.15	F: Sandy Gravel	<1	<0.1	<1	<1	<1	<0.05	**1**	**2**	<0.1
BH18	0.01-0.15	F: Gravelly Silty Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH19	0.02-0.4	F: Silty Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**3**	<0.1
BH19	0.5-0.95	F: Silty Clay	<1	<0.1	**3**	<1	**2**	<0.05	<1	**5**	<0.1
BH20	0.02-0.3	F: Silty Sand	**1**	<0.1	**4**	**2**	**3**	<0.05	**3**	**21**	<0.1
BH20	0.5-0.95	F: Silty Clay	**3**	**0.2**	**25**	**8**	**16**	<0.05	**5**	**6**	<0.1
BH21	0.04-0.15	F: Silty Clay	<1	<0.1	**4**	**2**	**4**	<0.05	**1**	**4**	<0.1
BH21	0.7-0.95	F: Silty Clay	<1	<0.1	<1	<1	**1**	<0.05	<1	**3**	<0.1
BH22	0.1-0.15	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	**1**	**2**	<0.1
BH22	0.3-0.5	F: Silty Clay	**14**	**0.4**	**72**	**14**	**29**	<0.05	**12**	**22**	<0.1
BH23	0.02-0.3	F: Silty Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**4**	<0.1
BH23	0.5-0.95	F: Sand	**2**	<0.1	**1**	<1	<1	<0.05	**1**	**5**	<0.1
BH24	0-0.1	F: Silty Sand	<1	<0.1	**1**	**1**	<1	<0.05	<1	**4**	<0.1
BH24	0.8-0.95	F: Silty Clay	**9**	**0.2**	**26**	**7**	**27**	<0.05	**7**	**15**	<0.1
BH25	0.1-0.3	F: Silty Clay	**7**	**0.1**	**27**	**2**	**16**	<0.05	**3**	**6**	<0.1
BH26	0.7-1	XW Siltstone	**2**	<0.1	<1	**1**	**1**	<0.05	<1	<1	<0.1
BH27	0.3-0.5	F: Gravelly Silty Sand	**5**	**0.1**	**30**	**7**	**18**	<0.05	**5**	**21**	<0.1
BH27	0.8-0.95	F: Silty Clay	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH28	0-0.1	F: Clayey Sand	**5**	**0.1**	**17**	**8**	**13**	<0.05	**4**	**34**	<0.1
BH28	1.5-1.95	F: Silty Clay	**5**	**0.1**	**28**	**7**	**16**	<0.05	**7**	**23**	<0.1
BH28	3-3.2	F: Silty Clay	**5**	<0.1	**17**	**4**	**20**	<0.05	**3**	**9**	<0.1
BH29	0.5-0.95	F: Silty Clay	**11**	**0.2**	**47**	**8**	**22**	<0.05	**9**	**38**	<0.1
BH29	3-3.45	F: Silty Clay	**5**	**0.4**	**16**	**34**	**44**	<0.05	**4**	**65**	<0.1
BH29 [LAB_DUP]	3-3.45	Laboratory Duplicate	**6**	**0.4**	**21**	**31**	**38**	<0.05	**5**	**71**	<0.1
BH30	0-0.1	F: Gravelly Sand	**1**	**0.1**	**6**	**7**	**7**	<0.05	**2**	**32**	<0.1
BH31	0.03-0.1	F: Gravelly Sand	<1	<0.1	**3**	**3**	**2**	<0.05	**3**	**5**	<0.1
BH32	0.03-0.3	F: Gravelly Sand	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	<0.1
BH33	0.04-0.14	F: Gravelly Silty Sand	<1	<0.1	**1**	<1	**1**	<0.05	**1**	**2**	<0.1
BH34	0.03-0.2	F: Gravelly Sand	<1	<0.1	**2**	**2**	**1**	<0.05	**2**	**2**	<0.1
BH34 - [LAB_DUP]	0.03-0.2	Laboratory Duplicate	<1	<0.1	<1	<1	<1	<0.05	<1	**2**	NA
BH35	0-0.15	F: Silty Clay	**1**	<0.1	**2**	**5**	**2**	<0.05	**1**	**13**	<0.1
Total Number of samples			67	67	67	67	67	67	67	67	64
Maximum Value			14	0.4	88	34	55	<PQL	15	71	<PQL

Concentration above PQL **Bold**

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TABLE S10a
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH1	BH1 - [LAB_DUP]	BH1	BH1	BH2	BH2	BH3	BH3	BH4	BH4	BH5	BH5 - [LAB_DUP]	BH5	BH6	BH6	BH7	BH7	BH8	BH8 - [LAB_DUP]	BH8	BH8 - [LAB_DUP]	BH9	BH9	BH9	BH10
	Envirolab	Industrial/	0.03-0.4	0.03-0.4	0.5-0.7	1.5-1.7	0.02-0.4	0.5-0.95	0.01-0.1	0.5-0.95	0.02-0.3	0.5-0.95	0.03-0.2	0.03-0.2	0.4-0.5	0.025-0.4	0.5-0.95	0.05-0.1	0.3-0.5	0.03-0.4	0.03-0.4	0.5-0.95	0.5-0.95	0.035-0.08	0.4-0.5	1.2-1.3	0.04-0.45
	Services	Commercial	F: Silty Gravelly Sand	Laboratory Duplicate	F:Silty Sand	F: Silty Clay	F: Silty Gravlley Sand	F: Silty Sandy Clay	F: Silty Gravelly Sand	F: Silty Clay	F:Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Sand	Laboratory Duplicate	F: Gravelly Clay	Laboratory Duplicate	F: Gravelly Silty Sand	F: Gravelly Silty Sand	F: Silty Clay	F: Silty Gravelly Sand
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**	**<0.1**	**<0.1**
Perfluoropentanesulfonic acid	0.1	NSL	**0.1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	**0.5**	**0.5**	<0.1	<0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	**5.1**	**4.8**	**0.5**	**0.2**	**7.8**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.3**	**0.8**	**2.3**	**1.0**	**1.4**	**0.8**
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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
Perfluorooctanoic acid PFOA	0.1	50,000	**0.2**	**0.2**	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.3**	**0.2**	**0.5**	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.9**	**0.9**	<0.2	<0.2	**0.6**	**0.5**	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	20,000	**5.6**	**5.3**	**0.5**	**0.2**	**8.3**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.4**	**0.9**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFOS & PFOA	0.1	NSL	**5.3**	**5**	**0.5**	**0.2**	**8.0**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.0**	**1.1**	**1.6**	**1.0**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFAS	0.1	NSL	**6.1**	**5.8**	**0.5**	**0.2**	**8.8**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.9**	**2.1**	**1.7**	**1.1**	**4.9**	**1.5**	**1.4**	**0.8**

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S10b
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH10	BH11	BH11	BH12	BH12 - [LAB_DUP]	BH12	BH13	BH13	BH14	BH14 - [LAB_DUP]	BH16	BH17	BH18	BH19	BH19	BH20	BH20	BH21	BH21	BH22	BH22	BH23	BH23	BH24	BH24
	Envirolab	Industrial/	1.5-1.7	0.03-0.3	0.5-0.7	0.05-0.23	0.05-0.23	1.7-1.95	0.5-0.95	1.5-1.7	0.02-0.12	0.02-0.12	0.01-0.2	0.05-0.15	0.01-0.15	0.02-0.4	0.5-0.95	0.02-0.3	0.5-0.95	0.04-0.15	0.7-0.95	0.1-0.15	0.3-0.5	0.02-0.3	0.5-0.95	0-0.1	0.8-0.95
	Services	Commercial	F: Sandy Gravelly Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Clay	F: Silty Gravelly Clay	F: Gravelly Silty Sand	Laboratory Duplicate	F: Sandy Gravel	F: Sandy Gravel	F: Gravelly Silty Sand	F: Silty Gravelly Sand	F: Silty Clay	F: Silty Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Gravelly Sand	F: Sand	F: Silty Sand	F: Silty Clay
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	50,000	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	20,000	**1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.3**	<0.1
Total Positive PFAS	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**1.2**	**3.5**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S10c
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - HUMAN HEALTH
Units are µg/Kg unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Industrial/ Commercial	BH25 0.1-0.3 F: Silty Clay	BH26 0.7-1 XW Siltstone	BH27 0.3-0.5 F: Gravelly Silty Sand	BH27 0.8-0.95 F: Silty Clay	BH28 0-0.1 F: Clayey Sand	BH28 1.5-1.95 F: Silty Clay	BH28 3-3.2 F: Silty Clay	BH29 0.5-0.95 F: Silty Clay	BH29 - [LAB_DUP] 0.5-0.95 Laboratory Duplicate	BH29 3-3.45 F: Silty Clay	BH30 0-0.1 F: Gravelly Sand	BH31 0.03-0.1 F: Gravelly Sand	BH32 0.03-0.3 F: Gravelly Sand	BH33 0.04-0.14 F: Gravelly Silty Sand	BH34 0.03-0.2 F: Gravelly Sand	BH35 0-0.15 F: Silty Clay	SDUP1 0.04-0.14 Duplicate of BH33	SDUP2 0-0.1 Duplicate of BH24	SDUP3 0.1-0.15 Duplicate of BH22	SDUP4 0.03-0.4 Duplicate of BH8	SDUP6 0.03-0.2 Duplicate of BH5	SDUP6 - [LAB_DUP] 0.03-0.2 Laboratory Duplicate	SDUP8 0.025-0.4 Duplicate of BH6	SDUP9 0.5-0.95 Duplicate of BH2	SDUP10 0.05-0.23 Duplicate of BH12
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<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**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	50,000	<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	**0.4**	<0.1	**0.2**	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.6**	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	20,000	<0.1	<0.1	**0.2**	<0.1	**0.8**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.5**	<0.1	<0.1	<0.1	<0.1	**1.9**	<0.1	**2.6**	<0.1	**1.0**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFAS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**1.1**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**2.1**	<0.1	<0.1	<0.1	<0.1	**2.4**	<0.1	**2.8**	<0.1	**1.6**	<0.1	<0.1	<0.1	**0.7**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S11a
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH1	BH1 - [LAB_DUP]	BH1	BH1	BH2	BH2	BH3	BH3	BH4	BH4	BH5	BH5 - [LAB_DUP]	BH5	BH6	BH6	BH7	BH7	BH8	BH8 - [LAB_DUP]	BH8	BH8 - [LAB_DUP]	BH9	BH9	BH9	BH10
	Envirolab	Indirect exposure	0.03-0.4	0.03-0.4	0.5-0.7	1.5-1.7	0.02-0.4	0.5-0.95	0.01-0.1	0.5-0.95	0.02-0.3	0.5-0.95	0.03-0.2	0.03-0.2	0.4-0.5	0.025-0.4	0.5-0.95	0.05-0.1	0.3-0.5	0.03-0.4	0.03-0.4	0.5-0.95	0.5-0.95	0.035-0.08	0.4-0.5	1.2-1.3	0.04-0.45
	Services	All land use	F: Silty Gravelly Sand	Laboratory Duplicate	F:Silty Sand	F: Silty Clay	F: Silty Gravlley Sand	F: Silty Sandy Clay	F: Silty Gravelly Sand	F: Silty Clay	F:Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Sand	Laboratory Duplicate	F: Gravelly Clay	Laboratory Duplicate	F: Gravelly Silty Sand	F: Gravelly Silty Sand	F: Silty Clay	F: Silty Gravelly Sand
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	**0.1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	**0.5**	**0.5**	<0.1	<0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	10	**5.1**	**4.8**	**0.5**	**0.2**	**7.8**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.3**	**0.8**	**2.3**	**1.0**	**1.4**	**0.8**
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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
Perfluorooctanoic acid PFOA	0.1	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.3**	**0.2**	**0.5**	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.9**	**0.9**	<0.2	<0.2	**0.6**	**0.5**	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	**5.6**	**5.3**	**0.5**	**0.2**	**8.3**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.4**	**0.9**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFOS & PFOA	0.1	NSL	**5.3**	**5**	**0.5**	**0.2**	**8.0**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.0**	**1.1**	**1.6**	**1.0**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFAS	0.1	NSL	**6.1**	**5.8**	**0.5**	**0.2**	**8.8**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.9**	**2.1**	**1.7**	**1.1**	**4.9**	**1.5**	**1.4**	**0.8**

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S11b
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH10	BH11	BH11	BH12	BH12 - [LAB_DUP]	BH12	BH13	BH13	BH14	BH14 - [LAB_DUP]	BH16	BH17	BH18	BH19	BH19	BH20	BH20	BH21	BH21	BH22	BH22	BH23	BH23	BH24	BH24
	Envirolab	Indirect exposure	1.5-1.7	0.03-0.3	0.5-0.7	0.05-0.23	0.05-0.23	1.7-1.95	0.5-0.95	1.5-1.7	0.02-0.12	0.02-0.12	0.01-0.2	0.05-0.15	0.01-0.15	0.02-0.4	0.5-0.95	0.02-0.3	0.5-0.95	0.04-0.15	0.7-0.95	0.1-0.15	0.3-0.5	0.02-0.3	0.5-0.95	0-0.1	0.8-0.95
	Services	All land use	F: Sandy Gravelly Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Clay	F: Silty Gravelly Clay	F: Gravelly Silty Sand	Laboratory Duplicate	F: Sandy Gravel	F: Sandy Gravel	F: Gravelly Silty Sand	F: Gravelly Silty Sand	F: Silty Clay	F: Silty Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Gravelly Sand	F: Sand	F: Silty Sand	F: Silty Clay
PFAS Compound																											
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	10	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	NSL	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.3**	<0.1
Total Positive PFAS	0.1	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**1.2**	**3.5**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S11c
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - ECOLOGY
Units are µg/Kg unless stated otherwise.

	PQL	NEMP 2020	BH25	BH26	BH27	BH27	BH28	BH28	BH28	BH29	BH29 - [LAB_DUP]	BH29	BH30	BH31	BH32	BH33	BH34	BH35	SDUP1	SDUP2	SDUP3	SDUP4	SDUP6	SDUP6 - [LAB_DUP]	SDUP8	SDUP9	SDUP10
	Envirolab	Indirect exposure	0.1-0.3	0.7-1	0.3-0.5	0.8-0.95	0-0.1	1.5-1.95	3-3.2	0.5-0.95	0.5-0.95	3-3.45	0-0.1	0.03-0.1	0.03-0.3	0.04-0.14	0.03-0.2	0-0.15	0.04-0.14	0-0.1	0.1-0.15	0.03-0.4	0.03-0.2	0.03-0.2	0.025-0.4	0.5-0.95	0.05-0.23
	Services	All land use	F: Silty Clay	XW Siltstone	F: Gravelly Silty Sand	F: Silty Clay	F: Clayey Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	Laboratory Duplicate	F: Silty Clay	F: Gravelly Sand	F: Gravelly Sand	F: Gravelly Sand	F: Gravelly Silty Sand	F: Gravelly Sand	F: Silty Clay	Duplicate of BH33	Duplicate of BH24	Duplicate of BH22	Duplicate of BH8	Duplicate of BH5	Laboratory Duplicate	Duplicate of BH6	Duplicate of BH2	Duplicate of BH12
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	10	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	NSL	<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	**0.4**	<0.1	**0.2**	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorononanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.6**	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.8**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.5**	<0.1	<0.1	<0.1	<0.1	**1.9**	<0.1	**2.6**	<0.1	**1.0**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFAS	0.1	NSL	<0.1	<0.1	**0.2**	<0.1	**1.1**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**2.1**	<0.1	<0.1	<0.1	<0.1	**2.4**	<0.1	**2.8**	<0.1	**1.6**	<0.1	<0.1	<0.1	**0.7**	<0.1

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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TABLE S12a
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL			BH1	BH1 - [LAB_DUP]	BH1	BH1	BH2	BH2	BH3	BH3	BH4	BH4	BH5	BH5 - [LAB_DUP]	BH5	BH6	BH6	BH7	BH7	BH8	BH8 - [LAB_DUP]	BH8	BH8 - [LAB_DUP]	BH9	BH9	BH9	BH10
	Envirolab Services	SCC1	SCC2	0.03-0.4 F: Silty Gravelly Sand	0.03-0.4 Laboratory Duplicate	0.5-0.7 F:Silty Sand	1.5-1.7 F: Silty Clay	0.02-0.4 F: Silty Gravlley Sand	0.5-0.95 F: Silty Sandy Clay	0.01-0.1 F: Silty Gravelly Sand	0.5-0.95 F: Silty Clay	0.02-0.3 F:Silty Gravelly Sand	0.5-0.95 F: Silty Clay	0.03-0.2 F: Gravelly Sand	0.03-0.2 Laboratory Duplicate	0.4-0.5 F: Silty Clay	0.025-0.4 F: Silty Gravelly Sand	0.5-0.95 F: Silty Clay	0.05-0.1 F: Gravelly Sand	0.3-0.5 F: Silty Clay	0.03-0.4 F: Silty Sand	0.03-0.4 Laboratory Duplicate	0.5-0.95 F: Gravelly Clay	0.5-0.95 Laboratory Duplicate	0.035-0.08 F: Gravelly Silty Sand	0.4-0.5 F: Gravelly Silty Sand	1.2-1.3 F: Silty Clay	0.04-0.45 F: Silty Gravelly Sand
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	**0.1**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	**0.5**	**0.5**	<0.1	<0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	**5.1**	**4.8**	**0.5**	**0.2**	**7.8**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.3**	**0.8**	**2.3**	**1.0**	**1.4**	**0.8**
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	**0.2**	**0.2**	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<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
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	**0.2**	**0.2**	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	**0.1**	**0.3**	**0.2**	**0.5**	<0.1	<0.1	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.9**	**0.9**	<0.2	<0.2	**0.6**	**0.5**	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	**5.6**	**5.3**	**0.5**	**0.2**	**8.3**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.9**	**1.0**	**1.4**	**0.9**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFOS & PFOA	0.1	NSL	NSL	**5.3**	**5.0**	**0.5**	**0.2**	**8.0**	**0.3**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.0**	**1.1**	**1.6**	**1.0**	**2.8**	**1.0**	**1.4**	**0.8**
Total Positive PFAS	0.1	NSL	NSL	**6.1**	**5.8**	**0.5**	**0.2**	**8.8**	**0.5**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.9**	**2.1**	**1.7**	**1.1**	**4.9**	**1.5**	**1.4**	**0.8**

Positive PFAS Result	**bold**
Result above SCC1 Criteria	**Bold**
Result above SCC2 Criteria	**Bold**

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TABLE S12b
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL			BH10	BH11	BH11	BH12	BH12 - [LAB_DUP]	BH12	BH13	BH13	BH14	BH14 - [LAB_DUP]	BH16	BH17	BH18	BH19	BH19	BH20	BH20	BH21	BH21	BH22	BH22	BH23	BH23	BH24	BH24
	Envirolab	SCC1	SCC2	1.5-1.7	0.03-0.3	0.5-0.7	0.05-0.23	0.05-0.23	1.7-1.95	0.5-0.95	1.5-1.7	0.02-0.12	0.02-0.12	0.01-0.2	0.05-0.15	0.01-0.15	0.02-0.4	0.5-0.95	0.02-0.3	0.5-0.95	0.04-0.15	0.7-0.95	0.1-0.15	0.3-0.5	0.02-0.3	0.5-0.95	0-0.1	0.8-0.95
	Services			F: Sandy Gravelly Clay	F: Silty Gravelly Sand	F: Silty Clay	F: Gravelly Sand	Laboratory Duplicate	F: Silty Clay	F: Silty Gravelly Clay	F: Silty Gravelly Clay	F: Gravelly Silty Sand	Laboratory Duplicate	F: Sandy Gravel	F: Sandy Gravel	F: Gravelly Silty Sand	F: Silty Gravelly Sand	F: Silty Clay	F: Silty Sand	F: Silty Clay	F: Silty Clay	F: Silty Clay	F: Gravelly Sand	F: Silty Clay	F: Silty Gravelly Sand	F: Sand	F: Silty Sand	F: Silty Clay
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.0**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**1.2**	**3.3**	<0.1
Total Positive PFAS	0.1	NSL	NSL	**0.6**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	**1.2**	**3.5**	<0.1

Postive PFAS Result **Bold**
Result above SCC1 Criteria **Bold**
Result above SCC2 Criteria **Bold**

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TABLE S12c
SUMMARY OF PFAS CONCENTRATIONS IN SOIL - WASTE CLASSIFICATION
Units are µg/Kg unless stated otherwise.

	PQL			BH25	BH26	BH27	BH27	BH28	BH28	BH28	BH29	BH29 - [LAB_DUP]	BH29	BH30	BH31	BH32	BH33	BH34	BH35	SDUP1	SDUP2	SDUP3	SDUP4	SDUP6	SDUP6 - [LAB_DUP]	SDUP8	SDUP9	SDUP10
	Envirolab Services	SCC1	SCC2	0.1-0.3 F: Silty Clay	0.7-1 XW Siltstone	0.3-0.5 F: Gravelly Silty Sand	0.8-0.95 F: Silty Clay	0-0.1 F: Clayey Sand	1.5-1.95 F: Silty Clay	3-3.2 F: Silty Clay	0.5-0.95 F: Silty Clay	0.5-0.95 Laboratory Duplicate	3-3.45 F: Silty Clay	0-0.1 F: Gravelly Sand	0.03-0.1 F: Gravelly Sand	0.03-0.3 F: Gravelly Sand	0.04-0.14 F: Gravelly Silty Sand	0.03-0.2 F: Gravelly Sand	0-0.15 F: Silty Clay	0.04-0.14 Duplicate of BH33	0-0.1 Duplicate of BH24	0.1-0.15 Duplicate of BH22	0.03-0.4 Duplicate of BH8	0.03-0.2 Duplicate of BH5	0.03-0.2 Laboratory Duplicate	0.025-0.4 Duplicate of BH6	0.5-0.95 Duplicate of BH2	0.05-0.23 Duplicate of BH12
PFAS Compound																												
Perfluorobutanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<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	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluoroheptanesulfonic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	0.1	NSL	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluorodecanesulfonic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorobutanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluoropentanoic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.3**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorohexanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoroheptanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorooctanoic acid PFOA	0.1	18,000	72,000	<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	**0.4**	<0.1	**0.2**	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.2**	<0.1
Perfluorononanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorodecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluoroundecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorododecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotridecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Perfluorotetradecanoic acid	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6:2 FTS	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
8:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10:2 FTS	0.1	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Methyl perfluorooctane sulfonamide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	1	NSL	NSL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	5	NSL	NSL	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MePerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EtPerfluorooctanesulf-amid oacetic acid	0.2	NSL	NSL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	**0.6**	<0.2	<0.2	<0.2	<0.2	<0.2
Total Positive PFHxS & PFOS	0.1	1800	7,200	<0.1	<0.1	**0.2**	<0.1	**0.8**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.4**	<0.1	<0.1	<0.1	<0.1	**1.4**	<0.1	**2.4**	<0.1	**0.9**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFOS & PFOA	0.1	NSL	NSL	<0.1	<0.1	**0.2**	<0.1	**0.6**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**1.5**	<0.1	<0.1	<0.1	<0.1	**1.9**	<0.1	**2.6**	<0.1	**1.0**	<0.1	<0.1	<0.1	**0.5**	<0.1
Total Positive PFAS	0.1	NSL	NSL	<0.1	<0.1	**0.2**	<0.1	**1.1**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**2.1**	<0.1	<0.1	<0.1	<0.1	**2.4**	<0.1	**2.8**	<0.1	**1.6**	<0.1	<0.1	<0.1	**0.7**	<0.1

Positive PFAS Result	**Bold**
Result above SCC1 Criteria	**Bold**
Result above SCC2 Criteria	**Bold**

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TABLE S13a
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	BH1 0.03-0.4	BH1 - [LAB_DUP] 0.03-0.4	BH1 0.5-0.7	BH1 1.5-1.7	BH2 0.02-0.4	BH2 0.5-0.95	BH3 0.01-0.1	BH3 0.5-0.95	BH4 0.02-0.3	BH4 0.5-0.95	BH5 0.03-0.2	BH5 - [LAB_DUP] 0.03-0.2	BH5 0.4-0.5	BH6 0.025-0.4	BH6 0.5-0.95	BH7 0.05-0.1	BH7 0.3-0.5	BH8 0.03-0.4	BH9 0.035-0.08	BH9 - [LAB_DUP] 0.035-0.08	BH10 0.5-0.95	BH11 0.03-0.3	BH11 0.5-0.7	BH12 0.05-0.23	BH12 - [LAB_DUP] 0.05-0.23	BH12 1.7-1.95	BH13 0.5-0.95
PFAS Compound																														
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	**0.03**	**0.02**	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	**0.21**	**0.2**	**0.02**	<0.01	**0.4**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.09**	**0.08**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	**0.24**	**0.22**	**0.02**	<0.01	**0.42**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.11**	**0.1**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	**0.21**	**0.2**	**0.02**	<0.01	**0.41**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.12**	**0.11**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	**0.25**	**0.22**	**0.02**	<0.01	**0.44**	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	**0.2**	**0.18**	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Positive PFAS Result **Bold**
Result above TCLP1 Criteria **Bold**
Result above TCLP2 Criteria **Bold**

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TABLE S13b
SUMMARY OF PFAS CONCENTRATIONS IN TCLP LEACHATE - WASTE CLASSIFICATION
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	TCLP1	TCLP2	BH14 0.02-0.12	BH14 - [LAB_DUP] 0.02-0.12	BH16 0.01-0.2	BH17 0.05-0.15	BH18 0.01-0.15	BH19 0.02-0.4	BH19 0.5-0.95	BH20 0.02-0.3	BH21 0.04-0.15	BH21 0.7-0.95	BH22 0.1-0.15	BH23 0.02-0.3	BH23 0.5-0.95	BH24 0-0.1	BH24 0.8-0.95	BH25 0.1-0.3	BH26 0.7-1	BH27 0.3-0.5	BH28 0-0.1	BH28 1.5-1.95	BH29 0.5-0.95	BH29 3.3-3.45	BH30 0-0.1	BH31 0.03-0.1	BH32 0.03-0.3	BH33 0.04-0.14	BH34 0.03-0.2	BH34 - [LAB_DUP] 0.03-0.2	BH35 0-0.15
PFAS Compound																																
Perfluorobutanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	500	2,000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	50	200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Positive PFAS Result **Bold**
Result above TCLP1 Criteria **Bold**
Result above TCLP2 Criteria **Bold**

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TABLE S14a
SUMMARY OF PFAS CONCENTRATIONS IN ASLP LEACHATE
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	SAC	BH1 0.03-0.4	BH1 - [LAB_DUP] 0.03-0.4	BH1 0.5-0.7	BH1 1.5-1.7	BH2 0.02-0.4	BH2 0.5-0.95	BH3 0.01-0.1	BH3 0.5-0.95	BH4 0.02-0.3	BH4 0.5-0.95	BH5 0.03-0.2	BH5 - [LAB_DUP] 0.03-0.2	BH5 0.4-0.5	BH6 0.025-0.4	BH6 0.5-0.95	BH7 0.05-0.1	BH7 0.3-0.5	BH8 0.03-0.4	BH8 - [LAB_DUP] 0.03-0.4	BH9 0.035-0.08	BH10 0.5-0.95	BH11 0.03-0.3	BH11 0.5-0.7	BH12 0.05-0.23	BH12 - [LAB_DUP] 0.05-0.23	BH12 1.7-1.95	BH13 0.5-0.95
PFAS Compound																													
Perfluorobutanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoropentanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	**0.02**	**0.02**	<0.01	<0.01	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	**0.21**	**0.17**	**0.02**	<0.01	**0.33**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.11**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.05**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	NSL	**0.23**	**0.19**	**0.02**	<0.01	**0.35**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.16**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	**0.21**	**0.17**	**0.02**	<0.01	**0.33**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.14**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	**0.24**	**0.19**	**0.02**	<0.01	**0.35**	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	**0.33**	**0.03**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Positive PFAS Result **Bold**

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TABLE S14b
SUMMARY OF PFAS CONCENTRATIONS IN ASLP LEACHATE
Units are µg/L unless stated otherwise.

	PQL Envirolab Services	SAC	BH14 0.02-0.12	BH14 - [LAB_DUP] 0.02-0.12	BH16 0.01-0.2	BH17 0.05-0.15	BH18 0.01-0.15	BH19 0.02-0.4	BH19 0.5-0.95	BH20 0.02-0.3	BH21 0.04-0.15	BH21 0.7-0.95	BH22 0.1-0.15	BH23 0.02-0.3	BH23 0.5-0.95	BH24 0-0.1	BH24 0.8-0.95	BH25 0.1-0.3	BH26 0.7-1	BH27 0.3-0.5	BH28 0-0.1	BH28 1.5-1.95	BH29 0.5-0.95	BH29 - [LAB_DUP] 0.5-0.95	BH29 3.3-3.45	BH29 - [LAB_DUP] 3.3-3.45	BH30 0-0.1	BH31 0.03-0.1	BH32 0.03-0.3	BH33 0.04-0.14	BH34 0.03-0.2	BH35 0-0.15
PFAS Compound																																
Perfluorobutanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.02**
Perfluoropentanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorohexanesulfonic acid - PFHxS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanesulfonic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanesulfonic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf-amid oacetic acid	0.02	NSL	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total Positive PFHxS & PFOS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFOS & PFOA	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Total Positive PFAS	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.03**	**0.02**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01	**0.02**

Positive PFAS Result **Bold**

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TABLE G1
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO ECOLOGICAL GILs SAC
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	ANZG 2018 Fresh Waters	SAMPLES						
			MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	WDUP1	WDUP2
Inorganic Compounds and Parameters									
pH	-	6.5 - 8.5	5.8	NA	5	NA	6.3	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4000**	NA	**2600**	NA	**1200**	NA	NA
Metals and Metalloids									
Arsenic (As III)	1	24	<1	<1	<1	NA	<1	<1	<1
Cadmium	0.1	0.2	<0.1	<0.1	**0.7**	NA	<0.1	**0.8**	<0.1
Chromium (SAC for Cr III adopted)	1	3.3	<1	<1	**1**	NA	<1	**1**	<1
Copper	1	1.4	**4**	**4**	**190**	NA	<1	**190**	**2**
Lead	1	3.4	<1	<1	**7**	NA	<1	**8**	<1
Total Mercury (inorganic)	0.05	0.06	<0.05	<0.05	<0.05	NA	<0.05	<0.05	<0.05
Nickel	1	11	**100**	**100**	**250**	NA	**92**	**250**	**110**
Zinc	1	8	**400**	**400**	**1100**	NA	**59**	**1100**	**440**
Total Recoverable Hydrocarbons (TRH)									
TRH F1	10	NSL	<10	NA	<10	<10	<10	<10	<10
TRH F2	50	NSL	<50	NA	<50	NA	<50	<50	<50
TRH F3	100	NSL	<100	NA	<100	NA	<100	<100	<100
TRH F4	100	NSL	<100	NA	<100	NA	<100	<100	<100
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)									
Benzene	1	950	<1	NA	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	<2	<2	<2	<2
o-xylene	1	350	<1	NA	<1	<1	<1	<1	<1
Total xylenes	2	NSL	<2	NA	<2	<2	<2	<2	<2
Volatile Organic Compounds (VOCs), including chlorinated VOCs									
Dichlorodifluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Vinyl Chloride	10	100	<10	NA	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	700	<1	NA	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1-dichloroethane	1	90	<1	NA	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Bromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Chloroform	1	370	<1	NA	5	5	10	5	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloroethane	1	1900	<1	NA	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	270	<1	NA	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Carbon tetrachloride	1	240	<1	NA	<1	<1	<1	<1	<1
Benzene	1	950	<1	NA	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloropropane	1	900	<1	NA	<1	<1	<1	<1	<1
Trichloroethene	1	330	<1	NA	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	**1**	**1**	<1	**1**	<1
trans-1,3-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	6500	<1	NA	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	<1	<1	<1	<1
1,3-dichloropropane	1	1100	<1	NA	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tetrachloroethene	1	70	<1	NA	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Chlorobenzene	1	55	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	<2	<2	<2	<2
Styrene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	400	<1	NA	<1	<1	<1	<1	<1
o-xylene	1	350	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Isopropylbenzene	1	30	<1	NA	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	260	<1	NA	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	60	<1	NA	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	160	<1	NA	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	85	<1	NA	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1	3	<1	NA	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	0.1	16	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluorene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Phenanthrene	0.1	0.6	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Anthracene	0.1	0.01	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluoranthene	0.1	1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Chrysene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	NA	<0.2	NA	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**
GIL >PQL	Red

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TABLE G2
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO HUMAN CONTACT GILs
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	Recreational (10 x NHMRC ADWG)	SAMPLES						
			MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	WDUP1	WDUP2
Inorganic Compounds and Parameters									
pH	-	6.5 - 8.5	5.8	NA	5	NA	6.3	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4000**	NA	**2600**	NA	**1200**	NA	NA
Metals and Metalloids									
Arsenic (As III)	1	100	<1	<1	<1	NA	<1	<1	<1
Cadmium	0.1	20	<0.1	<0.1	**0.7**	NA	<0.1	**0.8**	<0.1
Chromium (total)	1	500	<1	<1	**1**	NA	<1	**1**	<1
Copper	1	20000	**4**	**4**	**190**	NA	<1	**190**	**2**
Lead	1	100	<1	<1	**7**	NA	<1	**8**	<1
Total Mercury (inorganic)	0.05	10	<0.05	<0.05	<0.05	NA	<0.05	<0.05	<0.05
Nickel	1	200	**100**	**100**	**250**	NA	**92**	**250**	**110**
Zinc	1	30000	**400**	**400**	**1100**	NA	**59**	**1100**	**440**
Total Recoverable Hydrocarbons (TRH)									
TRH F1	10	NSL	<10	NA	<10	<10	<10	<10	<10
TRH F2	50	NSL	<50	NA	<50	NA	<50	<50	<50
TRH F3	100	NSL	<100	NA	<100	NA	<100	<100	<100
TRH F4	100	NSL	<100	NA	<100	NA	<100	<100	<100
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)									
Benzene	1	10	<1	NA	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	<2	<2	<2	<2
o-xylene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Total xylenes	2	6000	<2	NA	<2	<2	<2	<2	<2
Volatile Organic Compounds (VOCs), including chlorinated VOCs									
Dichlorodifluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Vinyl Chloride	10	3	<10	NA	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	300	<1	NA	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	600	<1	NA	<1	<1	<1	<1	<1
1,1-dichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	600	<1	NA	<1	<1	<1	<1	<1
Bromochloromethane	1	2500	<1	NA	<1	<1	<1	<1	<1
Chloroform	1		<1	NA	5	5	10	5	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloroethane	1	30	<1	NA	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Carbon tetrachloride	1	30	<1	NA	<1	<1	<1	<1	<1
Benzene	1	10	<1	NA	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Trichloroethene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	**1**	**1**	<1	**1**	<1
trans-1,3-dichloropropene	1	1000	<1	NA	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	1000	<1	NA	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	<1	<1	<1	<1
1,3-dichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tetrachloroethene	1	500	<1	NA	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Chlorobenzene	1	3000	<1	NA	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	<2	<2	<2	<2
Styrene	1	300	<1	NA	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	NSL	<1	NA	<1	<1	<1	<1	<1
o-xylene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
Isopropylbenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	200	<1	NA	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	400	<1	NA	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	15000	<1	NA	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	300	<1	NA	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		<1	NA	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	7	<1	NA	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Acenaphthene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluorene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Phenanthrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Fluoranthene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Chrysene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	NA	<0.2	NA	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	NA	<0.1	NA	<0.1	<0.1	<0.1

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**
GIL >PQL	Red

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TABLE G3
GROUNDWATER LABORATORY RESULTS COMPARED TO SITE SPECIFIC HSLs - RISK ASSESSMENT
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	NHMRC ADWG 2011	WHO 2008	USEPA RSL Tapwater 2023	SAMPLES					
					MW18	MW26	MW26 [LAB_DUP]	MW29	WDUP1	WDUP2
Total Recoverable Hydrocarbons (TRH)										
C_6-C_9 Aliphatics (assessed using F1)	10	-	100	-	<10	<10	<10	<10	<10	<10
>C_9-C_{14} Aliphatics (assessed using F2)	50	-	100	-	<50	<50	NA	<50	<50	<50
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)										
Benzene	1	1	-	-	<1	<1	<1	<1	<1	<1
Toluene	1	800	-	-	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	-	-	<1	<1	<1	<1	<1	<1
Total xylenes	2	600	-	-	<2	<2	<2	<2	<2	<2
Polycyclic Aromatic Hydrocarbons (PAHs)										
Naphthalene	1	-	-	6.1	<1	<1	<1	<1	<1	<1
Volatile Organic Compounds (VOCs), including chlorinated VOCs										
Dichlorodifluoromethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Chloromethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	0.3	-	-	<10	<10	<10	<10	<10	<10
Bromomethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Chloroethane	10	-	-	-	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	-	-	-	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	30	-	-	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	60	-	-	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	60	-	-	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	250	-	-	<1	<1	<1	<1	<1	<1
Chloroform	1		-	-	<1	**5**	**5**	**10**	**5**	<1
2,2-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	3	-	-	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	-	-	-	<1	<1	<1	<1	<1	<1
Cyclohexane	1	-	-	-	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	3	-	-	<1	<1	<1	<1	<1	<1
Benzene	1	1	-	-	<1	<1	<1	<1	<1	<1
Dibromomethane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
Trichloroethene	1	-	-	-	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	-	-	-	<1	**1**	**1**	<1	**1**	<1
trans-1,3-dichloropropene	1	100	-	-	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	100	-	-	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Toluene	1	800	-	-	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	50	-	-	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	300	-	-	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	-	-	<1	<1	<1	<1	<1	<1
Bromoform	1	-	-	-	<1	<1	<1	<1	<1	<1
m+p-xylene	2	-	-	-	<2	<2	<2	<2	<2	<2
Styrene	1	30	-	-	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	-	-	-	<1	<1	<1	<1	<1	<1
o-xylene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	-	-	-	<1	<1	<1	<1	<1	<1
Bromobenzene	1	-	-	-	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	-	-	-	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,3-dichlorobenzene	1	20	-	-	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	40	-	-	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	1500	-	-	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	-	-	-	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	30	-	-	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		-	-	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	0.7	-	-	<1	<1	<1	<1	<1	<1

Concentration above the SAC	**VALUE**
Concentration above the PQL	**Bold**
GIL >PQL	Red

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TABLE G4
SUMMARY OF PFAS CONCENTRATIONS IN GROUNDWATER - ECOLOGY
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 99% Freshwater	SAMPLES				
			MW18	MW26	MW29	WDUP1	WDUP2
PFAS Compound							
Perfluorobutanesulfonic acid	0.0004	NSL	<0.0004	**0.0005**	<0.0004	**0.0005**	<0.0004
Perfluoropentanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorohexanesulfonic acid - PFHxS	0.0002	NSL	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluoroheptanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorooctanesulfonic acid PFOS	0.0002	0.00023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	0.002	NSL	<0.004	<0.004	<0.02	<0.004	<0.002
Perfluoropentanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexanoic acid	0.0004	NSL	**0.002**	**0.0009**	**0.0006**	**0.0009**	**0.002**
Perfluoroheptanoic acid	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Perfluorooctanoic acid PFOA	0.0002	19	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Perfluorononanoic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	0.005	NSL	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
6:2 FTS	0.0004	NSL	**0.0066**	**0.002**	**0.0006**	**0.001**	**0.0064**
8:2 FTS	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
10:2 FTS	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Total Positive PFHxS & PFOS	0.0002	NSL	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Total Positive PFOS & PFOA	0.0002	NSL	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Total Positive PFAS	0.0002	NSL	**0.0086**	**0.0035**	**0.002**	**0.003**	**0.0084**

Positive PFAS result	**Bold**
PFAS result above the SAC	**Bold**

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TABLE G5
SUMMARY OF PFAS CONCENTRATIONS IN GROUNDWATER - HUMAN HEALTH
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	NEMP 2020 Recreational	SAMPLES				
			MW18	MW26	MW29	WDUP1	WDUP2
PFAS Compound							
Perfluorobutanesulfonic acid	0.0004	NSL	<0.0004	**0.0005**	<0.0004	**0.0005**	<0.0004
Perfluoropentanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorohexanesulfonic acid - PFHxS	0.0002	NSL	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluoroheptanesulfonic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorooctanesulfonic acid PFOS	0.0002	NSL	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanesulfonic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	0.002	NSL	<0.004	<0.004	<0.02	<0.004	<0.002
Perfluoropentanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorohexanoic acid	0.0004	NSL	**0.002**	**0.0009**	**0.0006**	**0.0009**	**0.002**
Perfluoroheptanoic acid	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Perfluorooctanoic acid PFOA	0.0002	10	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Perfluorononanoic acid	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	0.005	NSL	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	0.001	NSL	<0.001	<0.001	<0.001	<0.001	<0.001
6:2 FTS	0.0004	NSL	**0.0066**	**0.002**	**0.0006**	**0.001**	**0.0064**
8:2 FTS	0.0004	NSL	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
10:2 FTS	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	0.01	NSL	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	0.1	NSL	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	0.05	NSL	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	0.5	NSL	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf-amid oacetic acid	0.002	NSL	<0.002	<0.002	<0.002	<0.002	<0.002
Total Positive PFHxS & PFOS	0.0002	2	<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Total Positive PFOS & PFOA	0.0002	NSL	<0.0002	**0.0003**	**0.0002**	**0.0003**	<0.0002
Total Positive PFAS	0.0002	NSL	**0.0086**	**0.0035**	**0.002**	**0.003**	**0.0084**

Positive PFAS result **Bold**
PFAS result above the SAC **Bold**

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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 | 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 | Azinphos-methyl (Guthion) | Bromophos-ethyl | Chlorpyriphos | Chlorpyriphos-methyl | Diazinon | Dichlorvos | Dimethoate | Ethion | Fenitrothion | Malathion | Parathion | Ronnel | Total PCBS | Arsenic | Cadmium | Chromium | Copper | Lead | Mercury | Nickel | Zinc |
|---|---|---

TABLE Q2
SUMMARY OF PFAS FIELD QA/QC IN SOIL
Units are µg/Kg unless stated otherwise.

			Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecanesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfon amide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePerfluorooctanesulf-amid oacetic acid	EtPerfluorooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS
PQL Envirolab			*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.5*	*0.5*	*0.5*	*0.5*	*5*	*0.1*	*0.1*	*0.1*	*0.1*	*1*	*1*	*1*	*1*	*5*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*
PQL Envirolab VIC			*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.5*	*0.5*	*0.5*	*0.5*	*5*	*0.1*	*0.1*	*0.1*	*0.1*	*1*	*1*	*1*	*1*	*5*	*0.2*	*0.2*	*0.1*	*0.1*	*0.1*
Intra laboratory duplicate	BH33	0.04-0.14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP1	0.04-0.14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	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	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	nc	nc	nc	nc	nc	nc	nc
Intra laboratory duplicate	BH22	0.1-0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP3	0.1-0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	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	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	nc	nc	nc	nc	nc	nc	nc
Intra laboratory duplicate	BH5	0.03-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP6	0.03-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	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	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	nc	nc	nc	nc	nc	nc	nc
Intra laboratory duplicate	BH2	0.5-0.95	<0.1	<0.1	0.1	<0.1	0.3	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.5	0.3	0.5
	SDUP9	0.5-0.95	<0.1	<0.1	0.2	<0.1	0.4	<0.2	<0.2	<0.2	<0.1	<0.1	0.2	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	0.5	0.5	0.7
	MEAN		nc	nc	0.15	nc	0.35	nc	nc	nc	nc	nc	0.125	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.5	0.4	0.6
	RPD %		nc	nc	67%	nc	29%	nc	nc	nc	nc	nc	120%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	50%	33%
Inter laboratory duplicate	BH24	0-0.1	<0.1	<0.1	<0.1	<0.1	3	<0.2	<0.2	<0.2	<0.1	<0.1	0.3	0.2	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	3	3.3	3.5
	SDUP2	0-0.1	<0.1	<0.1	<0.1	<0.1	2.4	<0.2	<0.2	<0.2	<0.1	<0.1	0.2	0.2	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	2.4	2.6	2.8
	MEAN		nc	nc	nc	nc	2.7	nc	nc	nc	nc	nc	0.25	0.2	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	2.7	2.95	3.15
	RPD %		nc	nc	nc	nc	22%	nc	nc	nc	nc	nc	40%	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	22%	24%	22%
Inter laboratory duplicate	BH8	0.03-0.4	<0.1	<0.1	<0.1	<0.1	0.9	<0.2	<0.2	<0.2	<0.1	<0.1	0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	0.9	0.9	1	1.9
	SDUP4	0.03-0.4	<0.1	<0.1	<0.1	<0.1	0.9	<0.2	<0.2	<0.2	<0.1	<0.1	0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	0.6	0.9	1	1.6
	MEAN		nc	nc	nc	nc	0.9	nc	nc	nc	nc	nc	0.1	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.75	0.9	1	1.75
	RPD %		nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	40%	0%	0%	17%
Inter laboratory duplicate	BH6	0.025-0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP8	0.025-0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	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	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	nc	nc	nc	nc	nc	nc	nc
Inter laboratory duplicate	BH12	0.05-0.23	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	SDUP10	0.05-0.23	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
	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	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	nc	nc	nc	nc	nc	nc	nc
Field Blank	TB-S1 27/11/2023	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Field Blank	TB-S2 4/12/2023	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Field Blank	TB-S3 3/01/2024	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<5	<0.1	<0.1	<0.2	<0.2	<1	<1	<1	<1	<5	<0.2	<0.2	<0.1	<0.1	<0.1
Field Rinsate	FR-1-Auger 28/11/2023	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001
Field Rinsate	FR-2-SPT 4/12/2023	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001
Field Rinsate	FR-S3-SPT 3/01/2024	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001
Field Rinsate	FR-S4-SA 3/01/2024	µg/L	-	-	<0.001	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	<0.001	<0.002	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001

Result outside of QA/QC acceptance criteria Value

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TABLE Q3
GROUNDWATER QA/QC SUMMARY

		Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Trans-1,2-dichloroethene	1,1-dichloroethane	Cis-1,2-dichloroethene	Bromochloromethane	Chloroform	2,2-dichloropropane	1,2-dichloroethane	1,1,1-trichloroethane	1,1-dichloropropene	Cyclohexane	Carbon tetrachloride	Benzene	Dibromomethane	1,2-dichloropropane	Trichloroethene	Bromodichloromethane	trans-1,3-dichloropropene	cis-1,3-dichloropropene	1,1,2-trichloroethane	Toluene	1,3-dichloropropane	Dibromochloromethane	1,2-dibromoethane	Tetrachloroethene	1,1,1,2-tetrachloroethane	Chlorobenzene	Ethylbenzene	Bromoform	m+p-xylene	Styrene	1,1,2,2-tetrachloroethane	o-xylene	1,2,3-trichloropropane	Isopropylbenzene	Bromobenzene	n-propyl benzene	2-chlorotoluene	4-chlorotoluene	1,3,5-trimethyl benzene	Tert-butyl benzene	1,2,4-trimethyl benzene	1,3-dichlorobenzene	Sec-butyl benzene	1,4-dichlorobenzene	4-isopropyl toluene	1,2-dichlorobenzene	n-butyl benzene	1,2-dibromo-3-chloropropane	1,2,4-trichlorobenzene	Hexachlorobutadiene	1,2,3-trichlorobenzene
	PQL Envirolab SYD	*10*	*10*	*10*	*10*	*10*	*10*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
	PQL Envirolab VIC	*10*	*10*	*10*	*10*	*10*	*10*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
Intra laboratory duplicate	MW26	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	WDUP1	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	5	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	1	nc	nc	nc	nc	nc	nc	nc	nc	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	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	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 laboratory duplicate	MW18	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	WDUP2	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	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	nc	nc	nc	nc	nc	nc	nc	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	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field Blank	TB-W1 12/12/2023	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

		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	Arsenic	Cadmium	Chromium VI	Copper	Lead	Mercury	Nickel	Zinc
	PQL Envirolab SYD	*10*	*50*	*100*	*100*	*1*	*1*	*1*	*2*	*1*	*0.2*	*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*	*1*	*0.1*	*1*	*1*	*1*	*0.05*	*1*	*1*
	PQL Envirolab VIC	*10*	*50*	*100*	*100*	*1*	*1*	*1*	*2*	*1*	*0.2*	*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*	*1*	*0.1*	*1*	*1*	*1*	*0.05*	*1*	*1*
Intra laboratory duplicate	MW26	<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	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	0.7	1	190	7	<0.05	250	1100
	WDUP1	<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	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	0.8	1	190	8	<0.05	250	1100
	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	nc	nc	0.75	1	190	7.5	nc	250	1100
	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	nc	nc	13%	0%	0%	13%	nc	0%	0%
Inter laboratory duplicate	MW18	<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	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<1	4	<1	<0.05	100	400
	WDUP2	<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	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<1	2	<1	<0.05	110	440
	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	nc	nc	nc	nc	3	nc	nc	105	420
	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	nc	nc	nc	nc	67%	nc	nc	10%	10%
Field Blank	TB-W1 12/12/2023	<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	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<1	<1	<1	<0.05	<1	<1
Trip Spike	TS-W1 12/12/2023	-	-	-	-	94%	97%	107%	106%	102%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Result outside of QA/QC acceptance criteria Value

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TABLE Q4
SUMMARY OF PFAS FIELD QA/QC IN GROUNDWATER
Units are µg/L unless stated otherwise.

		Perfluorobutanesulfonic acid	Perfluoropentanesulfonic acid	Perfluorohexanesulfonic acid - PFHxS	Perfluoroheptanesulfonic acid	Perfluorooctanesulfonic acid PFOS	Perfluorodecanesulfonic acid	Perfluorobutanoic acid	Perfluoropentanoic acid	Perfluorohexanoic acid	Perfluoroheptanoic acid	Perfluorooctanoic acid PFOA	Perfluorononanoic acid	Perfluorodecanoic acid	Perfluoroundecanoic acid	Perfluorododecanoic acid	Perfluorotridecanoic acid	Perfluorotetradecanoic acid	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	Perfluorooctane sulfonamide	N-Methyl perfluorooctane sulfonamide	N-Ethyl perfluorooctanesulfon amide	N-Me perfluorooctanesulfonamid oethanol	N-Et perfluorooctanesulfonamid oethanol	MePerfluorooctanesulf-amid oacetic acid	EtPerfluorooctanesulf-amid oacetic acid	Total Positive PFHxS & PFOS	Total Positive PFOS & PFOA	Total Positive PFAS
PQL Envirolab		*0.0004*	*0.001*	*0.0002*	*0.001*	*0.0002*	*0.002*	*0.002*	*0.002*	*0.0004*	*0.0004*	*0.0002*	*0.001*	*0.002*	*0.002*	*0.005*	*0.01*	*0.05*	*0.001*	*0.0004*	*0.0004*	*0.002*	*0.01*	*0.05*	*0.1*	*0.05*	*0.5*	*0.002*	*0.002*	*0.0002*	*0.0002*	*0.0002*
PQL Envirolab VIC		*0.0004*	*0.001*	*0.0002*	*0.001*	*0.0002*	*0.002*	*0.002*	*0.002*	*0.0004*	*0.0004*	*0.0002*	*0.001*	*0.002*	*0.002*	*0.005*	*0.01*	*0.05*	*0.001*	*0.0004*	*0.0004*	*0.002*	*0.01*	*0.05*	*0.1*	*0.05*	*0.5*	*0.002*	*0.002*	*0.0002*	*0.0002*	*0.0002*
Intra laboratory duplicate	MW26	0.0005	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.004	<0.002	0.0009	<0.0004	0.0003	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.002	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	0.0003	0.0035
	WDUP1	0.0005	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.004	<0.002	0.0009	<0.0004	0.0003	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.001	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	0.0003	0.003
	MEAN	0.0005	nc	nc	nc	nc	nc	nc	nc	0.0009	nc	0.0003	nc	nc	nc	nc	nc	nc	nc	0.0015	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.0003	0.0033
	RPD %	0%	nc	nc	nc	nc	nc	nc	nc	0%	nc	0%	nc	nc	nc	nc	nc	nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	15%
Inter laboratory duplicate	MW18	<0.0004	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.004	<0.002	0.002	<0.0004	<0.0002	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.0066	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	<0.0002	0.0086
	WDUP2	<0.0004	<0.001	<0.0002	<0.001	<0.0002	<0.002	<0.002	<0.002	0.002	<0.0004	<0.0002	<0.001	<0.002	<0.002	<0.005	<0.01	<0.05	<0.001	0.0064	<0.0004	<0.002	<0.01	<0.05	<0.1	<0.05	<0.5	<0.002	<0.002	<0.0002	<0.0002	0.0084
	MEAN	nc	nc	nc	nc	nc	nc	nc	nc	0.002	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.0065	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.0085
	RPD %	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc	3%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	2%
Field Blank	TB-W1 12/12/2023	-	-	<0.0002	-	<0.0002	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	<0.0004	<0.0004	-	-	-	-	-	-	-	-	<0.0002	<0.0002	<0.0002

Result outside of QA/QC acceptance criteria Value

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Additional Contamination Investigation Data Summary Tables

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration
ACM:	Asbestos Containing Material
ADWG:	Australian Drinking Water Guidelines
AF:	Asbestos Fines
AMC:	Absolute Maximum Concentration
ANZG	Australian and New Zealand Guidelines
B(a)P:	Benzo(a)pyrene
BTEX:	Benzene, Toluene, Ethylbenzene & Xylene
CEC:	Cation Exchange Capacity
CRC:	Cooperative Research Centre
CT:	Contaminant Threshold
EC:	Electrical Conductivity
EILs:	Ecological Investigation Levels
ENM	Excavated Natural Material
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
MAC:	Maximum Average Concentration
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
ppm:	Parts per million
PCBs:	Polychlorinated Biphenyls
PCE:	Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
PID:	Photoionisation Detector
PQL:	Practical Quantitation Limit
RPD:	Relative Percentage Difference
RS:	Rinsate Sample
RSL:	Regional Screening Levels
RSW:	Restricted Solid Waste
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
SSA:	Site Specific Assessment
SSHSLs:	Site Specific Health Screening Levels
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
UCL:	Upper Level Confidence Limit on Mean Value
USEPA	United States Environmental Protection Agency
VOCC:	Volatile Organic Chlorinated Compounds
WHO:	World Health Organisation
%w/w:	weight per weight

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 high 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.

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TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-D: 'Commercial/Industrial'

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)			3000	900	3600	240000	1500	730	6000	400000	4000	40	80	2000	2500	45	530	3600	50	2000	7	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH101	0-0.1	F: Clayey Sand	**8**	<0.4	**14**	**13**	**30**	<0.1	**5**	**29**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**32**	<0.1	**5**	**31**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH101	0.4-0.5	F: Silty Clay	**11**	<0.4	**21**	**8**	**21**	<0.1	**7**	**120**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101	1.8-2	F: Silty Clay	**9**	<0.4	**19**	**8**	**23**	<0.1	**4**	**15**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101	2.8-3	F: Silty Clay	**10**	<0.4	**26**	**31**	**47**	<0.1	**12**	**73**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH101	3.6-3.8	Silty Clay	**9**	<0.4	**21**	**3**	**20**	<0.1	<1	**3**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH102	0-0.1	F: Silty Clay	**10**	<0.4	**21**	**17**	**52**	<0.1	**12**	**52**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH102	0.8-1	F: Silty Clay	**21**	<0.4	**20**	**15**	**23**	<0.1	**25**	**46**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Detected
BH102	1.8-2	F: Silty Clay	**9**	<0.4	**22**	**22**	**40**	<0.1	**15**	**47**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH102	2.8-3	F: Silty Clay	**9**	<0.4	**25**	**29**	**63**	<0.1	**11**	**87**	**0.53**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH102	3.5-3.6	Silty Clay	**9**	<0.4	**24**	**5**	**16**	<0.1	**1**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH103	0-0.1	F: Silty Clay	**11**	<0.4	**21**	**13**	**33**	<0.1	**9**	**40**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**9**	<0.4	**16**	**14**	**32**	<0.1	**9**	**42**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH103	0.4-0.5	F: Silty Clay	**9**	<0.4	**24**	**9**	**28**	<0.1	**10**	**35**	**0.07**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH103	0.8-1	F: Silty Clay	**9**	<0.4	**19**	**11**	**35**	<0.1	**6**	**42**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH103	1.8-2	F: Silty Clay	**10**	<0.4	**24**	**21**	**77**	<0.1	**15**	**190**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	**1.7**	<0.1	<0.1	<0.1	Detected
BH103	2.8-3	F: Silty Clay	**10**	<0.4	**20**	**14**	**24**	<0.1	**3**	**19**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH103	3.1-3.2	Silty Clay	**10**	<0.4	**16**	**9**	**22**	<0.1	**1**	**15**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH104	0-0.1	F: Silty Sand	**10**	<0.4	**9**	**14**	**22**	<0.1	**2**	**16**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH104	0.1-0.2	F: Silty Clay	**6**	<0.4	**11**	**15**	**19**	<0.1	**8**	**24**	**0.07**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH105	0-0.05	F: Silty Sand	**4**	<0.4	**8**	**12**	**40**	<0.1	**4**	**33**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH105	0.1-0.15	F: Silty Clay	**9**	<0.4	**12**	**15**	**22**	<0.1	**9**	**12**	**0.07**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH106	0-0.1	F: Silty Clay	**5**	<0.4	**11**	**19**	**29**	<0.1	**11**	**48**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**11**	**16**	**30**	<0.1	**6**	**47**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	**6**	<0.4	**11**	**17**	**30**	<0.1	**6**	**48**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH107	0.12-0.3	F: Silty Gravelly Sand	<4	<0.4	**12**	**57**	**9**	<0.1	**54**	**53**	**4**	**0.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	NA
BH107 - [LAB_DUP]	0.12-0.3	Laboratory Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.1**	NA	NA
BH107	0.3-0.35	Silty Clay	**7**	<0.4	**20**	**33**	**11**	<0.1	**39**	**35**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH108	0.1-0.2	F: Gravelly Sand	<4	<0.4	**10**	**120**	**5**	<0.1	**72**	**43**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH108	0.2-0.3	F: Silty Sand	**4**	<0.4	**19**	**14**	**33**	<0.1	**18**	**32**	**0.52**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH109	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**7**	**32**	**0.1**	**5**	**21**	**0.58**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH109	0.6-0.8	Silty Clay	**6**	<0.4	**14**	**2**	**22**	<0.1	**1**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH110	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**12**	**43**	**0.1**	**8**	**32**	**2.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH111	0.23-0.3	F: Silty Sand	<4	<0.4	**6**	**13**	**32**	<0.1	**4**	**22**	**0.3**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH111	0.3-0.4	Silty Clay	<4	<0.4	**12**	**7**	**19**	<0.1	**10**	**15**	**2.5**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH112	0.2-0.3	F: Silty Sand	<4	<0.4	**13**	**13**	**34**	**0.1**	**9**	**23**	**2.4**	<0.5	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	Not Detected
BH112	0.4-0.6	Silty Clay	**12**	<0.4	**13**	**4**	**17**	<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	NA
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	**11**	<0.4	**16**	**3**	**21**	<0.1	<1	**2**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH113	0.2-0.4	F: Silty Sand	<4	<0.4	**14**	**47**	**44**	<0.1	**13**	**31**	**5.2**	**0.9**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	<4	<0.4	**17**	**21**	**48**	**0.1**	**12**	**30**	**6.2**	**1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	<4	<0.4	**14**	**51**	**50**	**0.1**	**12**	**30**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH114	0.23-0.3	F: Silty Sand	<4	<0.4	**7**	**39**	**37**	<0.1	**7**	**28**	**1.3**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH114	0.4-0.5	Silty Clay	**5**	<0.4	**11**	**13**	**22**	<0.1	**3**	**10**	**0.4**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH115	0.17-0.3	F: Silty Sand	<4	<0.4	**11**	**58**	**37**	**0.1**	**18**	**31**	**1.5**	<0.5	<0.1	<0.1	<0.1	<0.1	**1**	<0.1	**0.3**	<0.1	<0.1	Not Detected
BH115	0.4-0.5	Silty Clay	**5**	<0.4	**24**	**6**	**26**	<0.1	**10**	**6**	**8.9**	**0.9**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH116	0.22-0.4	F: Silty Sand	<4	<0.4	**12**	**7**	**46**	**0.1**	**6**	**32**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH117	0.23-0.3	F: Silty Sand	**5**	<0.4	**14**	**39**	**16**	<0.1	**36**	**21**	**1.8**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH117	0.4-0.5	F: Silty Clay	**6**	<0.4	**11**	**20**	**16**	<0.1	**20**	**11**	**1.7**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH118	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**88**	**39**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH118	0.6-0.8	F: Silty Clay	**8**	<0.4	**23**	**22**	**55**	<0.1	**36**	**43**	**0.5**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH118	1.6-1.7	F: Silty Clay	**8**	<0.4	**32**	**6**	**27**	<0.1	**3**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH118	1.8-2	Silty Clay	**11**	<0.4	**37**	**11**	**20**	<0.1	**2**	**7**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**8**	**44**	**2**	**0.5**	**57**	**32**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH119	0.8-1	F: Silty Clay	**7**	<0.4	**15**	**8**	**19**	<0.1	**2**	**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
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**22**	<0.1	**2**	**3**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH119	1.65-1.8	F: Silty Clay	**7**	<0.4	**33**	**4**	**24**	<0.1	**3**	**9**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH119	1.9-2	F: Silty Clay	**8**	<0.4	**31**	**4**	**25**	<0.1	**4**	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not Detected
BH120	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**12**	**66**	**3**	<0.1	**86**	**44**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH120	0.5-0.7	F: Sand	**8**	<0.4	**5**	**2**	**2**	<0.1	**1**	**7**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH120	1-1.2	F: Silty Clay	**6**	<0.4	**22**	**21**	**21**	<0.1	**24**	**12**	**0.08**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH120	1.8-2	F: Silty Clay	**12**	<0.4	**37**	**3**	**20**	<0.1	**2**	**2**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH121	0.01-0.15	F: Gravelly Sand	<4	<0.4	**12**	**60**	**5**	<0.1	**61**	**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
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	<4	<0.4	**17**	**66**	**5**	<0.1	**66**	**40**	**1.2**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH121	0.7-0.9	XW Siltstone: Silty Clay	**25**	<0.4	**7**	**4**	**20**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH122	0.01-0.1	F: Gravelly Sand	<4	<0.4	**12**	**66**	**4**	<0.1	**65**	**40**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH122	0.7-0.9	XW Siltstone: Silty Clay	<4	<0.4	**4**	**8**	**19**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH122	1-1.2	Siltstone	**6**	<0.4	**4**	**11**	**10**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH123	0.01-0.2	F: Gravelly Sand	<4	<0.4	**6**	**46**	**3**	<0.1	**45**	**31**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH123	0.4-0.6	XW Siltstone: Silty Clay	**10**	<0.4	**8**	**15**	**14**	<0.1	<1	<1	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP101	0.01-0.15	Duplicate of BH121	<4	<0.4	**10**	**44**	**10**	<0.1	**47**	**36**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP102	0.2-0.4	Duplicate of BH113	<4	<0.4	**29**	**17**	**44**	**0.1**	**18**	**28**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP103	0-0.1	Duplicate of BH103	**11**	<0.4	**20**	**17**	**41**	<0.10	**11**	**61**	<0.05	<0.50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP104	0.12-0.3	Duplicate of BH107	<4	<0.4	**13**	**62**	**13**	<0.10	**62**	**51**	**0.07**	<0.50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP105	0.1-0.2	Duplicate of BH108	<4	<0.4	**11**	**130**	**5.1**	<0.10	**79**	**39**	<0.05	<0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SDUP106	0.15-0.3	Duplicate of BH110	<4	<0.4	**10**	**8**	**47**	**0.1**	**6**	**32**	**1.3**	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Number of Samples			74	74	74	74	74	74	74	74	72	72	51	51	51	51	51	51	51	52	51	42
Maximum Value			25	<PQL	37	130	77	0.5	88	190	8.9	1	<PQL	<PQL	<PQL	<PQL	1	1.7	0.3	0.1	<PQL	Detected

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
Asbestos Detected — **Detected**

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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-D: COMMERCIAL/INDUSTRIAL							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH101	0-0.1	F: Clayey Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH101	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH101	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH101	2.8-3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH101	3.6-3.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH102	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH102	0.8-1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH102	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH102	2.8-3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH102	3.5-3.6	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH103	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH103	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH103	0.8-1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH103	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH103	2.8-3	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH103	3.1-3.2	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH104	0-0.1	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH104	0.1-0.2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH105	0-0.05	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH105	0.1-0.15	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH106	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH107	0.12-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0
BH107	0.3-0.35	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH108	0.1-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH108	0.2-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH109	0.15-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH109	0.6-0.8	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH110	0.15-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH111	0.23-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	2.2
BH111	0.3-0.4	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH112	0.2-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH112	0.4-0.6	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH113	0.2-0.4	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH114	0.23-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.4
BH114	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH115	0.17-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH115	0.4-0.5	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.6
BH116	0.22-0.4	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH117	0.23-0.3	F: Silty Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH117	0.4-0.5	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH118	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.7
BH118	0.6-0.8	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH118	1.6-1.7	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH118	1.8-2	Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.3
BH119	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.1
BH119	0.8-1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH119	1.65-1.8	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.2
BH119	1.9-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH120	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.5
BH120	0.5-0.7	F: Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1.4
BH120	1-1.2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.8
BH120	1.8-2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH121	0.01-0.15	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
BH121	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.9
BH122	0.01-0.1	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.7
BH122	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
BH122	1-1.2	Siltstone	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH123	0.01-0.2	F: Gravelly Sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.2
BH123	0.4-0.6	XW Siltstone: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.6
SDUP101	0.01-0.15	Duplicate of BH121	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
SDUP102	0.2-0.4	Duplicate of BH113	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
SDUP103	0-0.1	Duplicate of BH103	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP104	0.12-0.3	Duplicate of BH107	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP105	0.1-0.2	Duplicate of BH108	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
SDUP106	0.15-0.3	Duplicate of BH110	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	-
Total Number of Samples					72	72	72	72	72	72	72	59
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	2.2

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
BH101	0-0.1	F: Clayey Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	2.8-3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH101	3.6-3.8	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	0-0.1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	0.8-1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	2.8-3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH102	3.5-3.6	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	0-0.1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	0.8-1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	2.8-3	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH103	3.1-3.2	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH104	0-0.1	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH104	0.1-0.2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH105	0-0.05	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH105	0.1-0.15	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH106	0-0.1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH107	0.12-0.3	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH107	0.3-0.35	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH108	0.1-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH108	0.2-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH109	0.15-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH109	0.6-0.8	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH110	0.15-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH111	0.23-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH111	0.3-0.4	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH112	0.2-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH112	0.4-0.6	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH113	0.2-0.4	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH114	0.23-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH114	0.4-0.5	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH115	0.17-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH115	0.4-0.5	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH116	0.22-0.4	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH117	0.23-0.3	F: Silty Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH117	0.4-0.5	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	0.6-0.8	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	1.6-1.7	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH118	1.8-2	Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	0.8-1	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	1.65-1.8	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH119	1.9-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	0.02-0.2	F: Silty Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	0.5-0.7	F: Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	1-1.2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH120	1.8-2	F: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH121	0.01-0.15	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH121	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH122	0.01-0.1	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH122	0.7-0.9	XW Siltstone: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH122	1-1.2	Siltstone	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH123	0.01-0.2	F: Gravelly Sand	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
BH123	0.4-0.6	XW Siltstone: Silty Clay	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP101	0.01-0.15	Duplicate of BH121	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP102	0.2-0.4	Duplicate of BH113	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP103	0-0.1	Duplicate of BH103	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP104	0.12-0.3	Duplicate of BH107	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP105	0.1-0.2	Duplicate of BH108	0m to <1m	Sand	260	NL	3	NL	NL	230	NL
SDUP106	0.15-0.3	Duplicate of BH110	0m to <1m	Sand	260	NL	3	NL	NL	230	NL

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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			COMMERCIAL/INDUSTRIAL			
Samole Reference	**Sample Depth**	**Soil Texture**				
BH101	0-0.1	Coarse	<25	<50	**120**	**100**
BH101 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**190**	**210**
BH101	0.4-0.5	Coarse	<25	<50	<100	<100
BH101	1.8-2	Coarse	<25	<50	<100	<100
BH101	2.8-3	Coarse	<25	<50	<100	<100
BH101	3.6-3.8	Coarse	<25	<50	<100	<100
BH102	0-0.1	Coarse	<25	<50	<100	<100
BH102	0.8-1	Coarse	<25	<50	<100	<100
BH102	1.8-2	Coarse	<25	<50	<100	<100
BH102	2.8-3	Coarse	<25	<50	<100	<100
BH102	3.5-3.6	Coarse	<25	<50	<100	<100
BH103	0-0.1	Coarse	<25	<50	<100	<100
BH103 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**100**	<100
BH103	0.4-0.5	Coarse	<25	<50	<100	<100
BH103	0.8-1	Coarse	<25	<50	<100	<100
BH103	1.8-2	Coarse	<25	<50	<100	<100
BH103	2.8-3	Coarse	<25	<50	<100	<100
BH103	3.1-3.2	Coarse	<25	<50	<100	<100
BH104	0-0.1	Coarse	<25	<50	<100	<100
BH104	0.1-0.2	Coarse	<25	<50	<100	<100
BH105	0-0.05	Coarse	<25	<50	**100**	<100
BH105	0.1-0.15	Coarse	<25	<50	<100	<100
BH106	0-0.1	Coarse	<25	<50	**440**	**260**
BH106 - [LAB_DUP]	0-0.1	Coarse	<25	<50	**520**	**320**
BH107	0.12-0.3	Coarse	<25	<50	<100	<100
BH107	0.3-0.35	Coarse	<25	<50	<100	<100
BH108	0.1-0.2	Coarse	<25	<50	<100	<100
BH108	0.2-0.3	Coarse	<25	<50	<100	<100
BH109	0.15-0.3	Coarse	<25	<50	<100	<100
BH109	0.6-0.8	Coarse	<25	<50	<100	<100
BH110	0.15-0.3	Coarse	<25	<50	<100	<100
BH111	0.23-0.3	Coarse	<25	<50	<100	<100
BH111	0.3-0.4	Coarse	<25	<50	<100	<100
BH112	0.2-0.3	Coarse	<25	<50	<100	<100
BH112	0.4-0.6	Coarse	<25	<50	<100	<100
BH112 - [LAB_DUP]	0.4-0.6	Coarse	<25	<50	<100	<100
BH113	0.2-0.4	Coarse	<25	<50	**280**	**130**
BH113 - [LAB_DUP]	0.2-0.4	Coarse	<25	<50	<100	<100
BH114	0.23-0.3	Coarse	<25	<50	<100	<100
BH114	0.4-0.5	Coarse	<25	<50	<100	<100
BH115	0.17-0.3	Coarse	<25	<50	<100	<100
BH115	0.4-0.5	Coarse	<25	<50	<100	<100
BH116	0.22-0.4	Coarse	<25	<50	<100	<100
BH117	0.23-0.3	Coarse	<25	<50	**320**	**310**
BH117	0.4-0.5	Coarse	<25	<50	**110**	**130**
BH118	0.02-0.2	Coarse	<25	<50	<100	**190**
BH118	0.6-0.8	Coarse	<25	<50	**160**	**160**
BH118	1.6-1.7	Coarse	<25	<50	<100	<100
BH118	1.8-2	Coarse	<25	<50	<100	<100
BH119	0.02-0.2	Coarse	<25	<50	**140**	**260**
BH119	0.8-1	Coarse	<25	<50	<100	<100
BH119 - [LAB_DUP]	0.8-1	Coarse	<25	<50	<100	<100
BH119	1.65-1.8	Coarse	<25	<50	<100	<100
BH119	1.9-2	Coarse	<25	<50	<100	<100
BH120	0.02-0.2	Coarse	<25	<50	<100	**130**
BH120	0.5-0.7	Coarse	<25	<50	<100	<100
BH120	1-1.2	Coarse	<25	<50	<100	<100
BH120	1.8-2	Coarse	<25	<50	<100	<100
BH121	0.01-0.15	Coarse	<25	<50	<100	<100
BH121 - [LAB_DUP]	0.01-0.15	Coarse	<25	<50	<100	<100
BH121	0.7-0.9	Coarse	<25	<50	<100	<100
BH122	0.01-0.1	Coarse	<25	<50	<100	<100
BH122	0.7-0.9	Coarse	<25	<50	<100	<100
BH122	1-1.2	Coarse	<25	<50	<100	<100
BH123	0.01-0.2	Coarse	<25	<50	**200**	**460**
BH123	0.4-0.6	Coarse	<25	<50	<100	<100
SDUP101	0.01-0.15	Coarse	<25	<50	<100	<100
SDUP102	0.2-0.4	Coarse	<25	<50	<100	<100
SDUP103	0-0.1	Coarse	<25	<50	<100	<100
SDUP104	0.12-0.3	Coarse	<25	<50	<100	<100
SDUP105	0.1-0.2	Coarse	<25	<50	<100	<100
SDUP106	0.15-0.3	Coarse	<25	<50	<100	<100
Total Number of Samples			72	72	72	72
Maximum Value			<PQL	<PQL	520	460

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)
BH101	0-0.1	Coarse	700	1000	3500	10000
BH101 - [LAB_DUP]	0-0.1	Coarse	700	1000	3500	10000
BH101	0.4-0.5	Coarse	700	1000	3500	10000
BH101	1.8-2	Coarse	700	1000	3500	10000
BH101	2.8-3	Coarse	700	1000	3500	10000
BH101	3.6-3.8	Coarse	700	1000	3500	10000
BH102	0-0.1	Coarse	700	1000	3500	10000
BH102	0.8-1	Coarse	700	1000	3500	10000
BH102	1.8-2	Coarse	700	1000	3500	10000
BH102	2.8-3	Coarse	700	1000	3500	10000
BH102	3.5-3.6	Coarse	700	1000	3500	10000
BH103	0-0.1	Coarse	700	1000	3500	10000
BH103 - [LAB_DUP]	0-0.1	Coarse	700	1000	3500	10000
BH103	0.4-0.5	Coarse	700	1000	3500	10000
BH103	0.8-1	Coarse	700	1000	3500	10000
BH103	1.8-2	Coarse	700	1000	3500	10000
BH103	2.8-3	Coarse	700	1000	3500	10000
BH103	3.1-3.2	Coarse	700	1000	3500	10000
BH104	0-0.1	Coarse	700	1000	3500	10000
BH104	0.1-0.2	Coarse	700	1000	3500	10000
BH105	0-0.05	Coarse	700	1000	3500	10000
BH105	0.1-0.15	Coarse	700	1000	3500	10000
BH106	0-0.1	Coarse	700	1000	3500	10000
BH106 - [LAB_DUP]	0-0.1	Coarse	700	1000	3500	10000
BH107	0.12-0.3	Coarse	700	1000	3500	10000
BH107	0.3-0.35	Coarse	700	1000	3500	10000
BH108	0.1-0.2	Coarse	700	1000	3500	10000
BH108	0.2-0.3	Coarse	700	1000	3500	10000
BH109	0.15-0.3	Coarse	700	1000	3500	10000
BH109	0.6-0.8	Coarse	700	1000	3500	10000
BH110	0.15-0.3	Coarse	700	1000	3500	10000
BH111	0.23-0.3	Coarse	700	1000	3500	10000
BH111	0.3-0.4	Coarse	700	1000	3500	10000
BH112	0.2-0.3	Coarse	700	1000	3500	10000
BH112	0.4-0.6	Coarse	700	1000	3500	10000
BH112 - [LAB_DUP]	0.4-0.6	Coarse	700	1000	3500	10000
BH113	0.2-0.4	Coarse	700	1000	3500	10000
BH113 - [LAB_DUP]	0.2-0.4	Coarse	700	1000	3500	10000
BH114	0.23-0.3	Coarse	700	1000	3500	10000
BH114	0.4-0.5	Coarse	700	1000	3500	10000
BH115	0.17-0.3	Coarse	700	1000	3500	10000
BH115	0.4-0.5	Coarse	700	1000	3500	10000
BH116	0.22-0.4	Coarse	700	1000	3500	10000
BH117	0.23-0.3	Coarse	700	1000	3500	10000
BH117	0.4-0.5	Coarse	700	1000	3500	10000
BH118	0.02-0.2	Coarse	700	1000	3500	10000
BH118	0.6-0.8	Coarse	700	1000	3500	10000
BH118	1.6-1.7	Coarse	700	1000	3500	10000
BH118	1.8-2	Coarse	700	1000	3500	10000
BH119	0.02-0.2	Coarse	700	1000	3500	10000
BH119	0.8-1	Coarse	700	1000	3500	10000
BH119 - [LAB_DUP]	0.8-1	Coarse	700	1000	3500	10000
BH119	1.65-1.8	Coarse	700	1000	3500	10000
BH119	1.9-2	Coarse	700	1000	3500	10000
BH120	0.02-0.2	Coarse	700	1000	3500	10000
BH120	0.5-0.7	Coarse	700	1000	3500	10000
BH120	1-1.2	Coarse	700	1000	3500	10000
BH120	1.8-2	Coarse	700	1000	3500	10000
BH121	0.01-0.15	Coarse	700	1000	3500	10000
BH121 - [LAB_DUP]	0.01-0.15	Coarse	700	1000	3500	10000
BH121	0.7-0.9	Coarse	700	1000	3500	10000
BH122	0.01-0.1	Coarse	700	1000	3500	10000
BH122	0.7-0.9	Coarse	700	1000	3500	10000
BH122	1-1.2	Coarse	700	1000	3500	10000
BH123	0.01-0.2	Coarse	700	1000	3500	10000
BH123	0.4-0.6	Coarse	700	1000	3500	10000
SDUP101	0.01-0.15	Coarse	700	1000	3500	10000
SDUP102	0.2-0.4	Coarse	700	1000	3500	10000
SDUP103	0-0.1	Coarse	700	1000	3500	10000
SDUP104	0.12-0.3	Coarse	700	1000	3500	10000
SDUP105	0.1-0.2	Coarse	700	1000	3500	10000
SDUP106	0.15-0.3	Coarse	700	1000	3500	10000

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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		26,000	20,000	27,000	38,000	430	99,000	27,000	81,000	11,000	
Site Use		COMMERCIAL/INDUSTRIAL - DIRECT SOIL CONTACT									
Sample Reference	**Sample Depth**										
BH101	0-0.1	<25	<50	**120**	**100**	<0.2	<0.5	<1	<1	<1	**1.5**
BH101 - [LAB_DUP]	0-0.1	<25	<50	**190**	**210**	<0.2	<0.5	<1	<1	<1	-
BH101	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH101	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH101	2.8-3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH101	3.6-3.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH102	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH102	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH102	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH102	2.8-3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH102	3.5-3.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH103	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH103 - [LAB_DUP]	0-0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	-
BH103	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH103	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH103	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH103	2.8-3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH103	3.1-3.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH104	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH104	0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH105	0-0.05	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH105	0.1-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH106	0-0.1	<25	<50	**440**	**260**	<0.2	<0.5	<1	<1	<1	**0.6**
BH106 - [LAB_DUP]	0-0.1	<25	<50	**520**	**320**	<0.2	<0.5	<1	<1	<1	-
BH107	0.12-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	0
BH107	0.3-0.35	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH108	0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH108	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.1**
BH109	0.15-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH109	0.6-0.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH110	0.15-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH111	0.23-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**2.2**
BH111	0.3-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH112	0.2-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH112	0.4-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	0
BH112 - [LAB_DUP]	0.4-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH113	0.2-0.4	<25	<50	**280**	**130**	<0.2	<0.5	<1	<1	<1	**1.7**
BH113 - [LAB_DUP]	0.2-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH114	0.23-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.4**
BH114	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH115	0.17-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH115	0.4-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.6**
BH116	0.22-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH117	0.23-0.3	<25	<50	**320**	**310**	<0.2	<0.5	<1	<1	<1	**1**
BH117	0.4-0.5	<25	<50	**110**	**130**	<0.2	<0.5	<1	<1	<1	**1.5**
BH118	0.02-0.2	<25	<50	<100	**190**	<0.2	<0.5	<1	<1	<1	**1.7**
BH118	0.6-0.8	<25	<50	**160**	**160**	<0.2	<0.5	<1	<1	<1	**1.4**
BH118	1.6-1.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.5**
BH118	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.3**
BH119	0.02-0.2	<25	<50	**140**	**260**	<0.2	<0.5	<1	<1	<1	**1.1**
BH119	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH119 - [LAB_DUP]	0.8-1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH119	1.65-1.8	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.2**
BH119	1.9-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH120	0.02-0.2	<25	<50	<100	**130**	<0.2	<0.5	<1	<1	<1	**1.5**
BH120	0.5-0.7	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1.4**
BH120	1-1.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.8**
BH120	1.8-2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH121	0.01-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH121 - [LAB_DUP]	0.01-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
BH121	0.7-0.9	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.9**
BH122	0.01-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.7**
BH122	0.7-0.9	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
BH122	1-1.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
BH123	0.01-0.2	<25	<50	**200**	**460**	<0.2	<0.5	<1	<1	<1	**0.2**
BH123	0.4-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.6**
SDUP101	0.01-0.15	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
SDUP102	0.2-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
SDUP103	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP104	0.12-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP105	0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
SDUP106	0.15-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	-
Total Number of Samples		72	72	72	72	72	72	72	72	72	59
Maximum Value		<PQL	<PQL	520	460	<PQL	<PQL	<PQL	<PQL	<PQL	2.2

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

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TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HSL-D: Commercial/Industrial

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 reference	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**					**0.05**			**0.001**			**0.001**											**0.05**	**0.001**
10/10/2024	BH101	0-0.1	No	10	1,010	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	0-0.1	579.65	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
10/10/2024	BH101	0.1-1.0	No	<10	621	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	0.4-0.5	645.76	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
10/10/2024	BH101	1.0-2.0	No	10	1,080	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	1.8-2	652.96	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
10/10/2024	BH101	2.5-3	No	<10	835	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH101	2.8-3	546.46	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
10/10/2024	BH102	0-0.1	No	10	1,010	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	0-0.1	531.42	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
10/10/2024	BH102	0.1-1.0	No	<10	552	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	0.8-1	724.16	Chrysotile asbestos detected: Organic fibres detected	No asbestos detected	0.5825	Asbestos detected	–	0.4218	<0.01	0.0583
10/10/2024	BH102	1.0-2.0	No	<10	835	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	1.8-2	670.87	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
10/10/2024	BH102	2.5-3.0	No	<10	735	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH102	2.8-3	565.93	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
10/10/2024	BH103	0-0.1	No	10	1,088	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH103	0-0.1	706.46	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH103	0.4-0.5	727.15	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH103	0.8-1	660.13	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
10/10/2024	BH103	1.0-2.0	No	10	1,165	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH103	1.8-2	676.7	Chrysotile asbestos detected: Amosite asbestos detected: Crocidolite asbestos detected: Organic fibres detected	No asbestos detected	1.3432	Asbestos detected	–	0.909	<0.01	0.1343
10/10/2024	BH103	2.0-3.0	No	<10	723	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH103	2.8-3	748.13	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
10/10/2024	BH104	0-0.1	No	10	1,015	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH104	0-0.1	827.3	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH104	0.1-0.2	775.17	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
10/10/2024	BH105	0-0.05	No	10	1,005	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH105	0-0.05	724.46	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH105	0.1-0.15	785.46	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
10/10/2024	BH106	0-0.1	No	10	1,007	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH106	0-0.1	489.95	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
10/10/2024	BH107	0.12-0.3	No	<10	435	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	–	–	–	–	–	–	–	–	–	–	–	–
11/10/2024	BH108	0.03-0.2	No	<10	558	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH108	0.1-0.2	714.81	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH108	0.2-0.3	113.45	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
9/10/2024	BH109	0.15-0.3	No	<10	342	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH109	0.15-0.3	828.34	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
11/10/2024	BH110	0.15-0.3	No	<10	368	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH110	0.15-0.3	788.01	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
10/10/2024	BH111	0.23-0.3	No	<10	370	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH111	0.23-0.3	972.7	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH112	0.2-0.3	547.62	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH113	0.2-0.4	714.98	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
10/10/2024	BH114	0.23-0.3	No	<10	345	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH114	0.23-0.3	798.98	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH115	0.17-0.3	539.87	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
9/10/2024	BH116	0.2-0.4	No	<10	345	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH116	0.22-0.4	844.74	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
9/10/2024	BH117	0.23-0.3	No	<10	185	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH117	0.23-0.3	663.62	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH117	0.4-0.5	638.93	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH118	0.02-0.2	262.13	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH118	0.6-0.8	231.8	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH118	1.6-1.7	152.43	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH119	0.02-0.2	235.21	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH119	0.8-1	210.97	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH119	1.65-1.8	77.75	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH119	1.9-2	65.14	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH120	0.02-0.2	124.59	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH120	0.5-0.7	199.96	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
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	363994	BH120	1-1.2	172.72	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
8/10/2024	BH121	0.03-0.3	No	<10	413	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH121	0.01-0.15	827.33	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
8/10/2024	BH122	0-0.3	No	<10	178	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	363994	BH122	0.01-0.1	802.17	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**

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

Land Use Category				COMMERCIAL/INDUSTRIAL																	
						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	13	28	163	5	122	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																				
BH101	0-0.1	F: Clayey Sand	Coarse	**20**	**7.6**	NA	**8**	**14**	**13**	**30**	**5**	**29**	<1	<0.1	<25	<50	**120**	**100**	<0.2	<0.5	<1	<1	<0.05
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	**20**	**7.6**	NA	**8**	**16**	**10**	**32**	**5**	**31**	<1	<0.1	<25	<50	**190**	**210**	<0.2	<0.5	<1	<1	<0.05
BH101	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**11**	**21**	**8**	**21**	**7**	**120**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH101	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**9**	**19**	**8**	**23**	**4**	**15**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH101	2.8-3	F: Silty Clay	Fine	NA	NA	NA	**10**	**26**	**31**	**47**	**12**	**73**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH101	3.6-3.8	Silty Clay	Fine	NA	NA	NA	**9**	**21**	**3**	**20**	<1	**3**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**10**	**21**	**17**	**52**	**12**	**52**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	0.8-1	F: Silty Clay	Fine	NA	NA	NA	**21**	**20**	**15**	**23**	**25**	**46**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**9**	**22**	**22**	**40**	**15**	**47**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH102	2.8-3	F: Silty Clay	Fine	NA	NA	NA	**9**	**25**	**29**	**63**	**11**	**87**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH102	3.5-3.6	Silty Clay	Fine	NA	NA	NA	**9**	**24**	**5**	**16**	**1**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**11**	**21**	**13**	**33**	**9**	**40**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	**9**	**16**	**14**	**32**	**9**	**42**	<1	<0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<0.05
BH103	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**9**	**24**	**9**	**28**	**10**	**35**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH103	0.8-1	F: Silty Clay	Fine	NA	NA	NA	**9**	**19**	**11**	**35**	**6**	**42**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**10**	**24**	**21**	**77**	**15**	**190**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	2.8-3	F: Silty Clay	Fine	NA	NA	NA	**10**	**20**	**14**	**24**	**3**	**19**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH103	3.1-3.2	Silty Clay	Fine	NA	NA	NA	**10**	**16**	**9**	**22**	**1**	**15**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH104	0-0.1	F: Silty Sand	Coarse	**20**	**7.6**	NA	**10**	**9**	**14**	**22**	**2**	**16**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH104	0.1-0.2	F: Silty Clay	Fine	NA	NA	NA	**6**	**11**	**15**	**19**	**8**	**24**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH105	0-0.05	F: Silty Sand	Coarse	**20**	**7.6**	NA	**4**	**8**	**12**	**40**	**4**	**33**	<1	<0.1	<25	<50	**100**	<100	<0.2	<0.5	<1	<1	<0.05
BH105	0.1-0.15	F: Silty Clay	Fine	NA	NA	NA	**9**	**12**	**15**	**22**	**9**	**12**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.07**
BH106	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**5**	**11**	**19**	**29**	**11**	**48**	<1	<0.1	<25	<50	**440**	**260**	<0.2	<0.5	<1	<1	<0.05
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	**5**	**11**	**16**	**30**	**6**	**47**	<1	<0.1	<25	<50	**520**	**320**	<0.2	<0.5	<1	<1	<0.05
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	Fine	NA	NA	NA	**6**	**11**	**17**	**30**	**6**	**48**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH107	0.12-0.3	F: Silty Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**57**	**9**	**54**	**53**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
BH107	0.3-0.35	Silty Clay	Fine	NA	NA	NA	**7**	**20**	**33**	**11**	**39**	**35**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH108	0.1-0.2	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**10**	**120**	**5**	**72**	**43**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH108	0.2-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	**4**	**19**	**14**	**33**	**18**	**32**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH109	0.15-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**11**	**7**	**32**	**5**	**21**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH109	0.6-0.8	Silty Clay	Fine	NA	NA	NA	**6**	**14**	**2**	**22**	**1**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH110	0.15-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**11**	**12**	**43**	**8**	**32**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.3**
BH111	0.23-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**6**	**13**	**32**	**4**	**22**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.09**
BH111	0.3-0.4	Silty Clay	Fine	NA	NA	NA	<4	**12**	**7**	**19**	**10**	**15**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH112	0.2-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**13**	**13**	**34**	**9**	**23**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH112	0.4-0.6	Silty Clay	Fine	NA	NA	NA	**12**	**13**	**4**	**17**	<1	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	Fine	NA	NA	NA	**11**	**16**	**3**	**21**	<1	**2**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH113	0.2-0.4	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**14**	**47**	**44**	**13**	**31**	<1	<0.1	<25	<50	**280**	**130**	<0.2	<0.5	<1	<1	**0.59**
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	Coarse	**20**	**7.6**	NA	<4	**17**	**21**	**48**	**12**	**30**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.62**
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	Coarse	**20**	**7.6**	NA	<4	**14**	**51**	**50**	**12**	**30**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH114	0.23-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**7**	**39**	**37**	**7**	**28**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH114	0.4-0.5	Silty Clay	Fine	NA	NA	NA	**5**	**11**	**13**	**22**	**3**	**10**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.06**
BH115	0.17-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**11**	**58**	**37**	**18**	**31**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH115	0.4-0.5	Silty Clay	Fine	NA	NA	NA	**5**	**24**	**6**	**26**	**10**	**6**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.59**
BH116	0.22-0.4	F: Silty Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**7**	**46**	**6**	**32**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
BH117	0.23-0.3	F: Silty Sand	Coarse	**20**	**7.6**	NA	**5**	**14**	**39**	**16**	**36**	**21**	<1	<0.1	<25	<50	**320**	**310**	<0.2	<0.5	<1	<1	**0.2**
BH117	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	**6**	**11**	**20**	**16**	**20**	**11**	<1	NA	<25	<50	**110**	**130**	<0.2	<0.5	<1	<1	**0.2**
BH118	0.02-0.2	F: Silty Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**10**	**60**	**3**	**88**	**39**	<1	<0.1	<25	<50	<100	**190**	<0.2	<0.5	<1	<1	<0.05
BH118	0.6-0.8	F: Silty Clay	Fine	NA	NA	NA	**8**	**23**	**22**	**55**	**36**	**43**	<1	<0.1	<25	<50	**160**	**160**	<0.2	<0.5	<1	<1	**0.1**
BH118	1.6-1.7	F: Silty Clay	Fine	NA	NA	NA	**8**	**32**	**6**	**27**	**3**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH118	1.8-2	Silty Clay	Fine	NA	NA	NA	**11**	**37**	**11**	**20**	**2**	**7**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119	0.02-0.2	F: Silty Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**8**	**44**	**2**	**57**	**32**	<1	<0.1	<25	<50	**140**	**260**	<0.2	<0.5	<1	<1	<0.05
BH119	0.8-1	F: Silty Clay	Fine	NA	NA	NA	**7**	**15**	**8**	**19**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	Fine	NA	NA	NA	**8**	**16**	**10**	**22**	**2**	**3**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119	1.65-1.8	F: Silty Clay	Fine	NA	NA	NA	**7**	**33**	**4**	**24**	**3**	**9**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH119	1.9-2	F: Silty Clay	Fine	NA	NA	NA	**8**	**31**	**4**	**25**	**4**	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH120	0.02-0.2	F: Silty Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**66**	**3**	**86**	**44**	<1	<0.1	<25	<50	<100	**130**	<0.2	<0.5	<1	<1	<0.05
BH120	0.5-0.7	F: Sand	Coarse	**20**	**7.6**	NA	**8**	**5**	**2**	**2**	**1**	**7**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH120	1-1.2	F: Silty Clay	Fine	NA	NA	NA	**6**	**22**	**21**	**21**	**24**	**12**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.08**
BH120	1.8-2	F: Silty Clay	Fine	NA	NA	NA	**12**	**37**	**3**	**20**	**2**	**2**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH121	0.01-0.15	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**60**	**5**	**61**	**37**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	Coarse	**20**	**7.6**	NA	<4	**17**	**66**	**5**	**66**	**40**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH121	0.7-0.9	XW Siltstone: Silty Clay	Fine	NA	NA	NA	**25**	**7**	**4**	**20**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH122	0.01-0.1	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**12**	**66**	**4**	**65**	**40**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH122	0.7-0.9	XW Siltstone: Silty Clay	Fine	NA	NA	NA	<4	**4**	**8**	**19**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH122	1-1.2	Siltstone	Fine	NA	NA	NA	**6**	**4**	**11**	**10**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH123	0.01-0.2	F: Gravelly Sand	Coarse	**20**	**7.6**	NA	<4	**6**	**46**	**3**	**45**	**31**	<1	<0.1	<25	<50	**200**	**460**	<0.2	<0.5	<1	<1	<0.05
BH123	0.4-0.6	XW Siltstone: Silty Clay	Fine	NA	NA	NA	**10**	**8**	**15**	**14**	<1	<1	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP101	0.01-0.15	Duplicate of BH121	Coarse	**20**	**7.6**	NA	<4	**10**	**44**	**10**	**47**	**36**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
SDUP102	0.2-0.4	Duplicate of BH113	Coarse	**20**	**7.6**	NA	<4	**29**	**17**	**44**	**18**	**28**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.2**
SDUP103	0-0.1	Duplicate of BH103	Fine	NA	NA	NA	**11**	**20**	**17**	**41**	**11**	**61**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.050
SDUP104	0.12-0.3	Duplicate of BH107	Coarse	**20**	**7.6**	NA	<4.0	**13**	**62**	**13**	**62**	**51**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**0.07**
SDUP105	0.1-0.2	Duplicate of BH108	Coarse	**20**	**7.6**	NA	<4.0	**11**	**130**	**5.1**	**79**	**39**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.050
SDUP106	0.15-0.3	Duplicate of BH110	Coarse	**20**	**7.6**	NA	<4	**10**	**8**	**47**	**6**	**32**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**0.2**
Total Number of Samples				31	31	0	74	74	74	74	74	74	72	51	72	72	72	72	72	72	72	72	72
Maximum Value				20	7.6	NA	25	37	130	77	88	190	<PQL	<PQL	<PQL	<PQL	520	460	<PQL	<PQL	<PQL	<PQL	0.62

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
BH101	0-0.1	F: Clayey Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH101	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH101	1.8-2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH101	2.8-3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH101	3.6-3.8	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH102	0-0.1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH102	0.8-1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH102	1.8-2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH102	2.8-3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH102	3.5-3.6	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH103	0-0.1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103	0.8-1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH103	1.8-2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH103	2.8-3	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH103	3.1-3.2	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH104	0-0.1	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH104	0.1-0.2	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH105	0-0.05	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH105	0.1-0.15	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH106	0-0.1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	Fine	NA	NA	NA	160	320	110	2000	60	--	--	--	--	--	--	--	--	--	--	--	--
BH107	0.12-0.3	F: Silty Gravelly Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH107	0.3-0.35	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH108	0.1-0.2	F: Gravelly Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH108	0.2-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	--	215	170	1700	3300	75	135	165	180	72
BH109	0.15-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH109	0.6-0.8	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH110	0.15-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH111	0.23-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH111	0.3-0.4	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH112	0.2-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH112	0.4-0.6	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH112 - [LAB_DUP]	0.4-0.7	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH113	0.2-0.4	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	Coarse	20	7.6	NA	160	320	310	2000	300	740	--	--	--	--	--	--	--	--	--	--	--
BH114	0.23-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH114	0.4-0.5	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH115	0.17-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH115	0.4-0.5	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH116	0.22-0.4	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH117	0.23-0.3	F: Silty Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH117	0.4-0.5	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH118	0.02-0.2	F: Silty Gravelly Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH118	0.6-0.8	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH118	1.6-1.7	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH118	1.8-2	Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	--	215	170	2500	6600	95	135	185	95	72
BH119	0.02-0.2	F: Silty Gravelly Sand	Coarse	20	7.6	NA	160	320	310	2000	300	740	370	640	215	170	1700	3300	75	135	165	180	72
BH119	0.8-1	F: Silty Clay	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215	170	2500	6600	95	135	185	95	72
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	Fine	NA	NA	NA	160	320	110	2000	60	230	370	640	215

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	Total VOCs	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	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	Various	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	Varous	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	Varous	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	Various	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	**Sample Depth**	**Sample Description**																										
BH101	0-0.1	F: Clayey Sand	**8**	<0.4	**14**	**13**	**30**	<0.1	**5**	**29**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**32**	<0.1	**5**	**31**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	**120**	**200**	**320**	<0.2	<0.5	<1	<1	NA
BH101	0.4-0.5	F: Silty Clay	**11**	<0.4	**21**	**8**	**21**	<0.1	**7**	**120**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101	1.8-2	F: Silty Clay	**9**	<0.4	**19**	**8**	**23**	<0.1	**4**	**15**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101	2.8-3	F: Silty Clay	**10**	<0.4	**26**	**31**	**47**	<0.1	**12**	**73**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH101	3.6-3.8	Silty Clay	**9**	<0.4	**21**	**3**	**20**	<0.1	<1	**3**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH102	0-0.1	F: Silty Clay	**10**	<0.4	**21**	**17**	**52**	<0.1	**12**	**52**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH102	0.8-1	F: Silty Clay	**21**	<0.4	**20**	**15**	**23**	<0.1	**25**	**46**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Detected
BH102	1.8-2	F: Silty Clay	**9**	<0.4	**22**	**22**	**40**	<0.1	**15**	**47**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH102	2.8-3	F: Silty Clay	**9**	<0.4	**25**	**29**	**63**	<0.1	**11**	**87**	**0.53**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH102	3.5-3.6	Silty Clay	**9**	<0.4	**24**	**5**	**16**	<0.1	**1**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH103	0-0.1	F: Silty Clay	**11**	<0.4	**21**	**13**	**33**	<0.1	**9**	**40**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**9**	<0.4	**16**	**14**	**32**	<0.1	**9**	**42**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH103	0.4-0.5	F: Silty Clay	**9**	<0.4	**24**	**9**	**28**	<0.1	**10**	**35**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103	0.8-1	F: Silty Clay	**9**	<0.4	**19**	**11**	**35**	<0.1	**6**	**42**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103	1.8-2	F: Silty Clay	**10**	<0.4	**24**	**21**	**77**	<0.1	**15**	**190**	<0.05	<0.05	<0.1	<0.1	<0.1	**1.7**	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Detected
BH103	2.8-3	F: Silty Clay	**10**	<0.4	**20**	**14**	**24**	<0.1	**3**	**19**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH103	3.1-3.2	Silty Clay	**10**	<0.4	**16**	**9**	**22**	<0.1	**1**	**15**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH104	0-0.1	F: Silty Sand	**10**	<0.4	**9**	**14**	**22**	<0.1	**2**	**16**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH104	0.1-0.2	F: Silty Clay	**6**	<0.4	**11**	**15**	**19**	<0.1	**8**	**24**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH105	0-0.05	F: Silty Sand	**4**	<0.4	**8**	**12**	**40**	<0.1	**4**	**33**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH105	0.1-0.15	F: Silty Clay	**9**	<0.4	**12**	**15**	**22**	<0.1	**9**	**12**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH106	0-0.1	F: Silty Clay	**5**	<0.4	**11**	**19**	**29**	<0.1	**11**	**48**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	**200**	**350**	**550**	<0.2	<0.5	<1	<1	Not Detected
BH106 - [LAB_DUP]	0-0.1	Laboratory Duplicate	**5**	<0.4	**11**	**16**	**30**	<0.1	**6**	**47**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	**230**	**420**	**650**	<0.2	<0.5	<1	<1	NA
BH106 - [TRIPLICATE]	0-0.1	Laboratory Triplicate	**6**	<0.4	**11**	**17**	**30**	<0.1	**6**	**48**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH107	0.12-0.3	F: Silty Gravelly Sand	<4	<0.4	**12**	**57**	**9**	<0.1	**54**	**53**	**4**	**0.3**	<0.1	**0.1**	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH107 - [LAB_DUP]	0.12-0.3	Laboratory Duplicate	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	NA
BH107	0.3-0.35	Silty Clay	**7**	<0.4	**20**	**33**	**11**	<0.1	**39**	**35**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH108	0.1-0.2	F: Gravelly Sand	<4	<0.4	**10**	**120**	**5**	<0.1	**72**	**43**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH108	0.2-0.3	F: Silty Sand	**4**	<0.4	**19**	**14**	**33**	<0.1	**18**	**32**	**0.52**	**0.1**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH109	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**7**	**32**	**0.1**	**5**	**21**	**0.58**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH109	0.6-0.8	Silty Clay	**6**	<0.4	**14**	**2**	**22**	<0.1	**1**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH110	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**12**	**43**	**0.1**	**8**	**32**	**2.4**	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH111	0.23-0.3	F: Silty Sand	<4	<0.4	**6**	**13**	**32**	<0.1	**4**	**22**	**0.3**	**0.09**	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH111	0.3-0.4	Silty Clay	<4	<0.4	**12**	**7**	**19**	<0.1	**10**	**15**	**2.5**	**0.2**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH112	0.2-0.3	F: Silty Sand	<4	<0.4	**13**	**13**	**34**	**0.1**	**9**	**23**	**2.4**	**0.2**	<0.1	<0.1	<0.1	**0.2**	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH112	0.4-0.6	Silty Clay	**12**	<0.4	**13**	**4**	**17**	<0.1	<1	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH112 - [LAB_DUP]	0.4-0.6	Laboratory Duplicate	**11**	<0.4	**16**	**3**	**21**	<0.1	<1	**2**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH113	0.2-0.4	F: Silty Sand	<4	<0.4	**14**	**47**	**44**	<0.1	**13**	**31**	**5.2**	**0.59**	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	**160**	**180**	**340**	<0.2	<0.5	<1	<1	Not Detected
BH113 - [LAB_DUP]	0.2-0.4	Laboratory Duplicate	<4	<0.4	**17**	**21**	**48**	**0.1**	**12**	**30**	**6.2**	**0.62**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH113 - [TRIPLICATE]	0.2-0.4	Laboratory Triplicate	<4	<0.4	**14**	**51**	**50**	**0.1**	**12**	**30**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH114	0.23-0.3	F: Silty Sand	<4	<0.4	**7**	**39**	**37**	<0.1	**7**	**28**	**1.3**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH114	0.4-0.5	Silty Clay	**5**	<0.4	**11**	**13**	**22**	<0.1	**3**	**10**	**0.4**	**0.06**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH115	0.17-0.3	F: Silty Sand	<4	<0.4	**11**	**58**	**37**	**0.1**	**18**	**31**	**1.5**	**0.2**	<0.1	<0.1	<0.1	**1.5**	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH115	0.4-0.5	Silty Clay	**5**	<0.4	**24**	**6**	**26**	<0.1	**10**	**6**	**8.9**	**0.59**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH116	0.22-0.4	F: Silty Sand	<4	<0.4	**12**	**7**	**46**	**0.1**	**6**	**32**	**1.4**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH117	0.23-0.3	F: Silty Sand	**5**	<0.4	**14**	**39**	**16**	<0.1	**36**	**21**	**1.8**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	**120**	**300**	**420**	<0.2	<0.5	<1	<1	Not Detected
BH117	0.4-0.5	F: Silty Clay	**6**	<0.4	**11**	**20**	**16**	<0.1	**20**	**11**	**1.7**	**0.2**	NA	NA	NA	NA	NA	NA	<25	<50	<100	**100**	**100**	<0.2	<0.5	<1	<1	Not Detected
BH118	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**88**	**39**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**110**	**110**	<0.2	<0.5	<1	<1	Not Detected
BH118	0.6-0.8	F: Silty Clay	**8**	<0.4	**23**	**22**	**55**	<0.1	**36**	**43**	**0.5**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	Not Detected
BH118	1.6-1.7	F: Silty Clay	**8**	<0.4	**32**	**6**	**27**	<0.1	**3**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH118	1.8-2	Silty Clay	**11**	<0.4	**37**	**11**	**20**	<0.1	**2**	**7**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**8**	**44**	**2**	**0.5**	**57**	**32**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	Not Detected
BH119	0.8-1	F: Silty Clay	**7**	<0.4	**15**	**8**	**19**	<0.1	**2**	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH119 - [LAB_DUP]	0.8-1	Laboratory Duplicate	**8**	<0.4	**16**	**10**	**22**	<0.1	**2**	**3**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH119	1.65-1.8	F: Silty Clay	**7**	<0.4	**33**	**4**	**24**	<0.1	**3**	**9**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH119	1.9-2	F: Silty Clay	**8**	<0.4	**31**	**4**	**25**	<0.1	**4**	**5**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**12**	**66**	**3**	<0.1	**86**	**44**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	0.5-0.7	F: Sand	**8**	<0.4	**5**	**2**	**2**	<0.1	**1**	**7**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	1-1.2	F: Silty Clay	**6**	<0.4	**22**	**21**	**21**	<0.1	**24**	**12**	**0.08**	**0.08**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH120	1.8-2	F: Silty Clay	**12**	<0.4	**37**	**3**	**20**	<0.1	**2**	**2**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH121	0.01-0.15	F: Gravelly Sand	<4	<0.4	**12**	**60**	**5**	<0.1	**61**	**37**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH121 - [LAB_DUP]	0.01-0.15	Laboratory Duplicate	<4	<0.4	**17**	**66**	**5**	<0.1	**66**	**40**	**1.2**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH121	0.7-0.9	XW Siltstone: Silty Clay	**25**	<0.4	**7**	**4**	**20**	<0.1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH122	0.01-0.1	F: Gravelly Sand	<4	<0.4	**12**	**66**	**4**	<0.1	**65**	**40**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH122	0.7-0.9	XW Siltstone: Silty Clay	<4	<0.4	**4**	**8**	**19**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH122	1-1.2	Siltstone	**6**	<0.4	**4**	**11**	**10**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
BH123	0.01-0.2	F: Gravelly Sand	<4	<0.4	**6**	**46**	**3**	<0.1	**45**	**31**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	**250**	**250**	<0.2	<0.5	<1	<1	Not Detected
BH123	0.4-0.6	XW Siltstone: Silty Clay	**10**	<0.4	**8**	**15**	**14**	<0.1	<1	<1	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP101	0.01-0.15	Duplicate of BH121	<4	<0.4	**10**	**44**	**10**	<0.1	**47**	**36**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP102	0.2-0.4	Duplicate of BH113	<4	<0.4	**29**	**17**	**44**	**0.1**	**18**	**28**	**1.4**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
SDUP103	0-0.1	Duplicate of BH103	**11**	<0.4	**20**	**17**	**41**	<0.1	**11**	**61**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP104	0.12-0.3	Duplicate of BH107	<4.0	<0.4	**13**	**62**	**13**	<0.1	**62**	**51**	**0.07**	**0.07**	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP105	0.1-0.2	Duplicate of BH108	<4.0	<0.4	**11**	**130**	**5.1**	<0.1	**79**	**39**	<0.05	<0.05	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
SDUP106	0.15-0.3	Duplicate of BH110	<4	<0.4	**10**	**8**	**47**	**0.1**	**6**	**32**	**1.3**	**0.2**	NA	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<3	NA
Total Number of Samples			74	74	74	74	74	74	74	74	72	72	51	52	52	52	51	5	72	72	72	72	72	72	72	72	72	42
Maximum Value			25	<PQL	37	130	77	0.5	88	190	8.9	0.62	<PQL	0.1	<PQL	1.7	<PQL	<PQL	<PQL	<PQL	<PQL	230	420	650	<PQL	<PQL	<PQL	<PQL	Detected

Concentration above the CT1 — **VALUE**
Concentration above SCC1 — **VALUE**
Concentration above the SCC2 — **VALUE**
Concentration above PQL — **Bold**
Asbestos Detected > Special Waste (asbestos) — **Detected**

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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**							
BH107	0.12-0.3	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.05**	NA
BH107 - [LAB_DUP]	0.12-0.3	Laboratory Duplicate	NA	NA	NA	NA	NA	**0.05**	NA
BH108	0.1-0.2	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.2**	NA
BH118	0.02-0.2	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.1**	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.2**	NA
BH120	0.02-0.2	F: Silty Gravelly Sand	NA	NA	NA	NA	NA	**0.1**	NA
BH121	0.01-0.15	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.06**	NA
BH122	0.01-0.1	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.06**	NA
BH123	0.01-0.2	F: Gravelly Sand	NA	NA	NA	NA	NA	**0.04**	NA
Total Number of samples			0	0	0	0	0	9	0
Maximum Value			NA	NA	NA	NA	NA	0.2	NA

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

Copyright JK Environments

TABLE S9
SUMMARY OF LABORATORY RESULTS COMPARED TO THE ENM ASSESSMENT CRITERIA
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		TRH				BTEX COMPOUNDS				EC	pH	FIELD PID VALUES	ASBESTOS
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	(µS/cm)			
PQL			4	0.5	1	1	1	0.1	1	1	0.05	0.05	50	100	100	250	0.2	0.5	1	3	1	0.1	--	--
Maximum Average Concentration (MAC) [1]			20	0.5	75	100	50	0.5	30	150	20	0.5		NSL		250	--	--	--	--	1500	5 to 9	--	--
Absolute Maximum Concentration (AMC) [1]			40	1	150	200	100	1	60	300	40	1		NSL		500	0.5	65	25	15	3000	4.5 to 10	--	--
Sample Reference	**Sample Depth**	**Sample Description**																						
BH101	0-0.1	F: Clayey Sand	**8**	<0.4	**14**	**13**	**30**	<0.1	**5**	**29**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**55**	**5**	1.5	Not Detected
BH101	0.4-0.5	F: Silty Clay	**11**	<0.4	**21**	**8**	**21**	<0.1	**7**	**120**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**33**	**4.8**	0.8	Not Detected
BH101	1.8-2	F: Silty Clay	**9**	<0.4	**19**	**8**	**23**	<0.1	**4**	**15**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.4	Not Detected
BH101	2.8-3	F: Silty Clay	**10**	<0.4	**26**	**31**	**47**	<0.1	**12**	**73**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**86**	**6**	1.1	Not Detected
BH101	3.6-3.8	Silty Clay	**9**	<0.4	**21**	**3**	**20**	<0.1	<1	**3**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	NA
BH102	0-0.1	F: Silty Clay	**10**	<0.4	**21**	**17**	**52**	<0.1	**12**	**52**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH102	0.8-1	F: Silty Clay	**21**	<0.4	**20**	**15**	**23**	<0.1	**25**	**46**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	**Detected**
BH102	1.8-2	F: Silty Clay	**9**	<0.4	**22**	**22**	**40**	<0.1	**15**	**47**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH102	2.8-3	F: Silty Clay	**9**	<0.4	**25**	**29**	**63**	<0.1	**11**	**87**	**0.53**	**0.1**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH102	3.5-3.6	Silty Clay	**9**	<0.4	**24**	**5**	**16**	<0.1	**1**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	NA
BH103	0-0.1	F: Silty Clay	**11**	<0.4	**21**	**13**	**33**	<0.1	**9**	**40**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.8	Not Detected
BH103	0.4-0.5	F: Silty Clay	**9**	<0.4	**24**	**9**	**28**	<0.1	**10**	**35**	**0.07**	**0.07**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH103	0.8-1	F: Silty Clay	**9**	<0.4	**19**	**11**	**35**	<0.1	**6**	**42**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	Not Detected
BH103	1.8-2	F: Silty Clay	**10**	<0.4	**24**	**21**	**77**	<0.1	**15**	**190**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.3	**Detected**
BH103	2.8-3	F: Silty Clay	**10**	<0.4	**20**	**14**	**24**	<0.1	**3**	**19**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	Not Detected
BH103	3.1-3.2	Silty Clay	**10**	<0.4	**16**	**9**	**22**	<0.1	**1**	**15**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.2	NA
BH104	0-0.1	F: Silty Sand	**10**	<0.4	**9**	**14**	**22**	<0.1	**2**	**16**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.4	Not Detected
BH104	0.1-0.2	F: Silty Clay	**6**	<0.4	**11**	**15**	**19**	<0.1	**8**	**24**	**0.07**	**0.07**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**36**	**5.1**	0.5	Not Detected
BH105	0-0.05	F: Silty Sand	**4**	<0.4	**8**	**12**	**40**	<0.1	**4**	**33**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	Not Detected
BH105	0.1-0.15	F: Silty Clay	**9**	<0.4	**12**	**15**	**22**	<0.1	**9**	**12**	**0.07**	**0.07**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH106	0-0.1	F: Silty Clay	**5**	<0.4	**11**	**19**	**29**	<0.1	**11**	**48**	<0.05	<0.05	<50	**200**	**350**	**550**	<0.2	<0.5	<1	<1	NA	NA	0.6	Not Detected
BH107	0.12-0.3	F: Silty Gravelly Sand	<4	<0.4	**12**	**57**	**9**	<0.1	**54**	**53**	**4**	**0.3**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0	NA
BH107	0.3-0.35	Silty Clay	**7**	<0.4	**20**	**33**	**11**	<0.1	**39**	**35**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	NA
BH108	0.1-0.2	F: Gravelly Sand	<4	<0.4	**10**	**120**	**5**	<0.1	**72**	**43**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1	Not Detected
BH108	0.2-0.3	F: Silty Sand	**4**	<0.4	**19**	**14**	**33**	<0.1	**18**	**32**	**0.52**	**0.1**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH109	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**7**	**32**	**0.1**	**5**	**21**	**0.58**	**0.1**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**89**	**8.8**	0.8	Not Detected
BH109	0.6-0.8	Silty Clay	**6**	<0.4	**14**	**2**	**22**	<0.1	**1**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.3	NA
BH110	0.15-0.3	F: Silty Sand	<4	<0.4	**11**	**12**	**43**	**0.1**	**8**	**32**	**2.4**	**0.3**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	Not Detected
BH111	0.23-0.3	F: Silty Sand	<4	<0.4	**6**	**13**	**32**	<0.1	**4**	**22**	**0.3**	**0.09**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	2.2	Not Detected
BH111	0.3-0.4	Silty Clay	<4	<0.4	**12**	**7**	**19**	<0.1	**10**	**15**	**2.5**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.1	NA
BH112	0.2-0.3	F: Silty Sand	<4	<0.4	**13**	**13**	**34**	**0.1**	**9**	**23**	**2.4**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.4	Not Detected
BH112	0.4-0.6	Silty Clay	**12**	<0.4	**13**	**4**	**17**	<0.1	<1	**3**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0	NA
BH113	0.2-0.4	F: Silty Sand	<4	<0.4	**14**	**47**	**44**	<0.1	**13**	**31**	**5.2**	**0.59**	<50	**160**	**180**	**340**	<0.2	<0.5	<1	<1	NA	NA	1.7	Not Detected
BH114	0.23-0.3	F: Silty Sand	<4	<0.4	**7**	**39**	**37**	<0.1	**7**	**28**	**1.3**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.4	Not Detected
BH114	0.4-0.5	Silty Clay	**5**	<0.4	**11**	**13**	**22**	<0.1	**3**	**10**	**0.4**	**0.06**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	NA
BH115	0.17-0.3	F: Silty Sand	<4	<0.4	**11**	**58**	**37**	**0.1**	**18**	**31**	**1.5**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.5	Not Detected
BH115	0.4-0.5	Silty Clay	**5**	<0.4	**24**	**6**	**26**	<0.1	**10**	**6**	**8.9**	**0.59**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.6	NA
BH116	0.22-0.4	F: Silty Sand	<4	<0.4	**12**	**7**	**46**	**0.1**	**6**	**32**	**1.4**	**0.2**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**100**	**9.6**	1	Not Detected
BH117	0.23-0.3	F: Silty Sand	**5**	<0.4	**14**	**39**	**16**	<0.1	**36**	**21**	**1.8**	**0.2**	<50	**120**	**300**	**420**	<0.2	<0.5	<1	<1	NA	NA	1	Not Detected
BH117	0.4-0.5	F: Silty Clay	**6**	<0.4	**11**	**20**	**16**	<0.1	**20**	**11**	**1.7**	**0.2**	<50	<100	**100**	**100**	<0.2	<0.5	<1	<1	**180**	**8.3**	1.5	Not Detected
BH118	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**10**	**60**	**3**	<0.1	**88**	**39**	<0.05	<0.05	<50	<100	**110**	**110**	<0.2	<0.5	<1	<1	NA	NA	1.7	Not Detected
BH118	0.6-0.8	F: Silty Clay	**8**	<0.4	**23**	**22**	**55**	<0.1	**36**	**43**	**0.5**	**0.1**	<50	<100	**150**	**150**	<0.2	<0.5	<1	<1	**81**	**6.4**	1.4	Not Detected
BH118	1.6-1.7	F: Silty Clay	**8**	<0.4	**32**	**6**	**27**	<0.1	**3**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	**98**	**5.5**	1.5	Not Detected
BH118	1.8-2	Silty Clay	**11**	<0.4	**37**	**11**	**20**	<0.1	**2**	**7**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.3	NA
BH119	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**8**	**44**	**2**	**0.5**	**57**	**32**	<0.05	<0.05	<50	<100	**160**	**160**	<0.2	<0.5	<1	<1	NA	NA	1.1	Not Detected
BH119	0.8-1	F: Silty Clay	**7**	<0.4	**15**	**8**	**19**	<0.1	**2**	**3**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	Not Detected
BH119	1.65-1.8	F: Silty Clay	**7**	<0.4	**33**	**4**	**24**	<0.1	**3**	**9**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.2	Not Detected
BH119	1.9-2	F: Silty Clay	**8**	<0.4	**31**	**4**	**25**	<0.1	**4**	**5**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.8	Not Detected
BH120	0.02-0.2	F: Silty Gravelly Sand	<4	<0.4	**12**	**66**	**3**	<0.1	**86**	**44**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.5	Not Detected
BH120	0.5-0.7	F: Sand	**8**	<0.4	**5**	**2**	**2**	<0.1	**1**	**7**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	1.4	Not Detected
BH120	1-1.2	F: Silty Clay	**6**	<0.4	**22**	**21**	**21**	<0.1	**24**	**12**	**0.08**	**0.08**	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.8	Not Detected
BH120	1.8-2	F: Silty Clay	**12**	<0.4	**37**	**3**	**20**	<0.1	**2**	**2**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.1	NA
BH121	0.01-0.15	F: Gravelly Sand	<4	<0.4	**12**	**60**	**5**	<0.1	**61**	**37**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH121	0.7-0.9	XW Siltstone: Silty Clay	**25**	<0.4	**7**	**4**	**20**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.9	NA
BH122	0.01-0.1	F: Gravelly Sand	<4	<0.4	**12**	**66**	**4**	<0.1	**65**	**40**	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.7	Not Detected
BH122	0.7-0.9	XW Siltstone: Silty Clay	<4	<0.4	**4**	**8**	**19**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	NA
BH122	1-1.2	Siltstone	**6**	<0.4	**4**	**11**	**10**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.3	NA
BH123	0.01-0.2	F: Gravelly Sand	<4	<0.4	**6**	**46**	**3**	<0.1	**45**	**31**	<0.05	<0.05	<50	<100	**250**	**250**	<0.2	<0.5	<1	<1	**140**	**8.9**	0.2	NA
BH123	0.4-0.6	XW Siltstone: Silty Clay	**10**	<0.4	**8**	**15**	**14**	<0.1	<1	<1	<0.05	<0.05	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA	NA	0.6	NA
Total Number of samples			59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	10	10	59	42
Maximum Value			25	<PQL	37	120	77	0.5	88	190	8.9	0.59	<PQL	200	350	550	<PQL	<PQL	<PQL	<PQL	180	9.6	2.2	Detected
MAC			7	0.25	16	22	25	0.06	17	29	0.6	0.08	25	56	70	143	0.1	0.3	0.5	1.5	90	6.8	--	--

Average Concentration above the MAC — **VALUE**
Individual Concentration above the AMC — **VALUE**
Concentration above the PQL — **VALUE**

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TABLE SV1
SOIL VAPOUR LABORATORY RESULTS COMPARED TO HSLs AND INTERIM HILs FOR VOCC
All data in ug/m^3 unless stated otherwise

				SV1	SV1 (Lab-Duplicate)	SV2	SV3	SV4	SV5	SV6	SV7	SVDUP1
Land Use				COMMERCIAL/ INDUSTRIAL								
Compound	**PQL**	**NEPM 2013 Site Assessment Criteria (SAC)**	**USEPA****									
Total Recoverable Hydrocarbons (TRH)												
TRH F1	200	680000	See NEPM	<200	<200	<200	<200	<400	<200	<200	<200	<200
TRH F2	40	500000	See NEPM	<40	<40	<40	<40	2800	<40	60	<40	<40
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)												
Benzene	1.6	4000	See NEPM	**3**	**3**	**3**	**2**	**790**	<1.6	**6**	**7**	**3**
Toluene	1.9	4800000	See NEPM	**10**	**10**	**10**	**65**	**37**	**3**	**20**	**10**	**160**
Ethylbenzene	2.2	1300000	See NEPM	<2.2	<2.2	**4**	**2**	**4**	**9**	**3**	**3**	<2.2
Xylenes	2.2	840000	See NEPM	<2.2	<2.2	**29**	**18**	**8**	**123**	**11**	**7**	<2.2
Polycyclic Aromatic Hydrocarbons (PAHs)												
Naphthalene	2.6	3000	See NEPM	<2.6	<2.6	<2.6	<2.6	<5	<2.6	<2.6	<2.6	<2.6
Volatile Organic Compounds (VOCs) (NEPM 2013)												
TCE	2.7	80	See NEPM	<2.7	<2.7	<2.7	<2.7	**6**	<2.7	<2.7	**10**	<2.7
1,1,1-TCA	2.7	230000	See NEPM	<2.7	<2.7	<2.7	<2.7	<5	<2.7	<2.7	<2.7	<2.7
PCE	3.4	8000	See NEPM	<3.4	<3.4	<3.4	<3.4	<7	<3.4	<3.4	<3.4	<3.4
cis 1,2 dichloro-ethene	2	300	See NEPM	<2	<2	<2	<2	<4	<2	<2	<2	<2
Vinyl chloride	1.3	100	See NEPM	<1.3	<1.3	<1.3	<1.3	**7**	<1.3	<1.3	<1.3	<1.3
Other VOCs #												
Propylene	0.9	See USEPA	438000	**4**	**4**	**1**	**2**	**1400**	<0.9	<0.9	**19**	**38**
Dichlorodifluoromethane	2.5	See USEPA	14600	<2.5	<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	**4**
Chloromethane	1	See USEPA	13100	**1**	**2**	<1	<1	**32**	<1	<1	<1	**2**
Chloroethane	1.3	See USEPA	584000	<1.3	<1.3	<1.3	<1.3	**440**	<1.3	<1.3	<1.3	<1.3
Ethanol	9	See USEPA	NSL	**40**	**40**	**70**	**970**	**1300**	**330**	**40**	**30**	**95**
Acetone	11.9	See USEPA	NSL	**40**	**40**	**150**	**410**	**12000**	**70**	**60**	**20**	**20**
Isopropyl Alcohol	12	See USEPA	29200	**1000**	**1000**	**20**	**100**	**460**	**60**	**20**	**20**	**320**
Methylene chloride (Dichloromethane)	17	See USEPA	87600	<17	<17	<17	<17	<30	<17	<17	<17	**30**
Carbon Disulfide	16	See USEPA	102000	<16	<16	<16	<16	<30	<16	**20**	<16	<16
MEK	15	See USEPA	730000	<15	<15	<15	**15**	**220**	<15	**23**	<15	<15
Hexane	1.8	See USEPA	102000	**3**	**3**	<1.8	**10**	**170**	<1.8	**3**	**4**	**3**
Chloroform	2.4	See USEPA	178	<2.4	<2.4	<2.4	<2.4	<5	<2.4	**20**	**4**	<2.4
Cyclohexane	1.7	See USEPA	876000	<1.7	<1.7	<1.7	<1.7	**31**	<1.7	<1.7	<1.7	<1.7
Heptane	2	See USEPA	58400	<2	<2	**3**	<2	**360**	<2	**3**	**3**	<2
m-& p-Xylene	4.3	See USEPA	14600	<4.3	<4.3	**20**	**10**	**8**	**77**	**8**	**5**	<4.3
Styrene	2.1	See USEPA	146000	<2.1	<2.1	<2.1	<2.1	<4	<2.1	**5**	**10**	**3**
o-Xylene	2.2	See USEPA	14600	<2.2	<2.2	**9**	**8**	<4	46	**3**	**2**	<2.2
1,3,5-Trimethylbenzene	2.5	See USEPA	8760	<2.5	<2.5	**3**	**3**	<5	<2.5	**3**	<2.5	<2.5
1,2,4-Trimethylbenzene	2.5	See USEPA	8760	<2.5	<2.5	**8**	**10**	**5**	<2.5	**6**	**4**	<2.5
1,4-Dichlorobenzene	3	See USEPA	372	**6**	**6**	**20**	**10**	**20**	**6**	**30**	**20**	**6**

Concentration above the SAC — **VALUE**
Concentration above PQL — **Bold**
** Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-05 or THQ=1)
# VOC data has only been tabulated for key NEPM compounds and compounds that were above the PQLs

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TABLE G1
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO ECOLOGICAL GILs SAC
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	ANZG 2018 Fresh Waters	SAMPLES									
			MW18	MW18 [LAB_DUP]	MW26	MW26 - [LAB_DUP]	MW29	MW121	MW122	WDUP101	WDUP101 - LAB_DUP]	WDUP102
Inorganic Compounds and Parameters												
pH	-	6.5 - 8.5	5.1	5.1	5.7	NA	6.1	4.5	5.5	NA	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4400**	**4400**	**3000**	NA	**780**	**1000**	**670**	NA	NA	NA
Turbidity (NTU)	-	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hardness (mg/L)	3	NSL	**380**	NA	**360**	**360**	**100**	**48**	**30**	NA	NA	NA
Metals and Metalloids												
Arsenic (As III)	1	24	<1	[NT]	<1	<1	<1	**1**	<1	<1	NA	<1
Cadmium	0.1	0.2	**0.2**	[NT]	<0.1	<0.1	<0.1	**0.1**	**0.2**	**0.2**	NA	**0.16**
Chromium (SAC for Cr III adopted)	1	3.3	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1.0
Copper	1	1.4	**7**	[NT]	<1	<1	<1	**22**	**2**	**2**	NA	**9**
Lead	1	3.4	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1
Total Mercury (inorganic)	0.05	0.06	<0.05	<0.05	<0.05	[NT]	<0.05	<0.05	<0.05	<0.05	NA	<0.05
Nickel	1	11	**100**	[NT]	**140**	**130**	**4**	**10**	**12**	**12**	NA	**130**
Zinc	1	8	**560**	[NT]	**42**	**40**	**8**	**38**	**51**	**50**	NA	**680**
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)												
Benzene	1	950	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
o-xylene	1	350	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
Total xylenes	2	NSL	<2	NA	<2	NA	<2	**1**	**1**	**2**	**1**	<2
Total Recoverable Hydrocarbons (TRH)												
TRH F1 (C_6-C_{10})	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
TRH F2 (>C_{10}-C_{16})	50	NSL	<50	[NT]	<50	NA	**64**	**66**	**82**	**85**	NA	<50
TRH F3 (>C_{16}-C_{34})	100	NSL	<100	<100	<100	NA	<100	<100	**180**	**180**	NA	<100
TRH F4 (>C_{34})	100	NSL	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100
Volatile Organic Compounds (VOCs), including chlorinated VOCs												
Dichlorodifluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	100	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	700	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	90	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chloroform	1	370	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	1900	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	270	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	240	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Benzene	1	950	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	900	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trichloroethene	1	330	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	6500	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	180	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	1100	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	70	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	55	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	80	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	75	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
Styrene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	400	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
o-xylene	1	350	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	30	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	**1**	**1**	<1	<1
1,3-dichlorobenzene	1	260	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	60	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-Isopropyl toluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	160	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	85	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1	3	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)												
Naphthalene	0.2	16	<0.1	<0.1	<0.1	NA	<0.1	**0.7**	<0.1	<0.1	NA	<0.1
Acenaphthylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Acenaphthene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluorene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Phenanthrene	0.1	0.6	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Anthracene	0.1	0.01	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluoranthene	0.1	1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Chrysene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	<0.2	<0.2	NA	<0.2	<0.2	<0.2	<0.2	NA	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
GIL >PQL — Red

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TABLE G2
SUMMARY OF GROUNDWATER LABORATORY RESULTS COMPARED TO HUMAN CONTACT GILs
All results in µg/L unless stated otherwise.

	PQL Envirolab Services	Recreational (10 x NHMRC ADWG)	SAMPLES									
			MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	MW121	MW122	WDUP101	WDUP101 [LAB_DUP]	WDUP102
Inorganic Compounds and Parameters												
pH	-	6.5 - 8.5	5.1	5.1	5.7	NA	6.1	4.5	5.5	NA	NA	NA
Electrical Conductivity (µS/cm)	1	NSL	**4400**	**4400**	**3000**	NA	**780**	**1000**	**670**	NA	NA	NA
Turbidity (NTU)	-	NSL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Hardness (mg/L)	3	NSL	**380**	NA	**360**	**360**	**100**	**48**	**30**	NA	NA	NA
Metals and Metalloids												
Arsenic (As III)	1	100	<1	[NT]	<1	<1	<1	**1**	<1	<1	NA	<1
Cadmium	0.1	20	**0.2**	[NT]	<0.1	<0.1	<0.1	**0.1**	**0.2**	**0.2**	NA	**0.16**
Chromium (total)	1	500	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1
Copper	1	20000	**7**	[NT]	<1	<1	<1	**22**	**2**	**2**	NA	**9**
Lead	1	100	<1	[NT]	<1	<1	<1	<1	<1	<1	NA	<1
Total Mercury (inorganic)	0.05	10	<0.05	<0.05	<0.05	[NT]	<0.05	<0.05	<0.05	<0.05	NA	<0.05
Nickel	1	200	**100**	[NT]	**140**	**130**	**4**	**10**	**12**	**12**	NA	**130**
Zinc	1	30000	**560**	[NT]	**42**	**40**	**8**	**38**	**51**	**50**	NA	**680**
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)												
Benzene	1	10	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
o-xylene	1	NSL	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
Total xylenes	2	6000	<2	NA	<2	NA	<2	**1**	**1**	**2**	**1**	<2
Total Recoverable Hydrocarbons (TRH)												
TRH F1 (C6-C10)	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
TRH F2 (>C10-C16)	50	NSL	<50	[NT]	<50	NA	**64**	**66**	**82**	**85**	NA	<50
TRH F3 (>C16-C34)	100	NSL	<100	<100	<100	NA	<100	<100	**180**	**180**	NA	<100
TRH F4 (>C34)	100	NSL	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100
Volatile Organic Compounds (VOCs), including chlorinated VOCs												
Dichlorodifluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	3	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	300	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	600	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	600	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	2500	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chloroform	1		<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2,2-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	30	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	30	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Benzene	1	10	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trichloroethene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	1000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	1000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	8000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	500	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	3000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	3000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
Styrene	1	300	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
o-xylene	1	NSL	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
1,2,3-trichloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	**1**	**1**	<1	<1
1,3-dichlorobenzene	1	200	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	400	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	15000	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	300	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	7	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons (PAHs)												
Naphthalene	0.2	NSL	<0.1	<0.1	<0.1	NA	<0.1	**0.7**	<0.1	<0.1	NA	<0.1
Acenaphthylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Acenaphthene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluorene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Phenanthrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Fluoranthene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(a)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Chrysene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(b,j+k)fluoranthene	0.2	NSL	<0.2	<0.2	<0.2	NA	<0.2	<0.2	<0.2	<0.2	NA	<0.2
Benzo(a)pyrene	0.1	0.1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Indeno(1,2,3-c,d)pyrene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Dibenzo(a,h)anthracene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1
Benzo(g,h,i)perylene	0.1	NSL	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	<0.1	NA	<0.1

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
GIL >PQL — Red

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TABLE G3
GROUNDWATER LABORATORY RESULTS COMPARED TO SITE SPECIFIC HSLs - RISK ASSESSMENT
All results in µg/L unless stated otherwise.

	PQL	NHMRC	WHO 2008	USEPA RSL	SAMPLES									
	Envirolab Services	ADWG 2011		Tapwater 2024	MW18	MW18 [LAB_DUP]	MW26	MW26 [LAB_DUP]	MW29	MW121	MW122	WDUP101	WDUP101 [LAB_DUP]	WDUP102
Total Recoverable Hydrocarbons (TRH)														
C_6-C_9 Aliphatics (assessed using F1)	10	NSL	100	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
>C_9-C_{14} Aliphatics (assessed using F2)	50	NSL	100	NSL	<50	[NT]	<50	NA	**64**	**66**	**82**	**85**	NA	<50
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)														
Benzene	1	1	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	800	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Total xylenes	2	600	NSL	NSL	<2	NA	<2	NA	<2	**1**	**1**	**2**	**1**	<2
Polycyclic Aromatic Hydrocarbons (PAHs)														
Naphthalene	1	NSL	NSL	6.1	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Volatile Organic Compounds (VOCs), including chlorinated VOCs														
Dichlorodifluoromethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloromethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Vinyl Chloride	10	0.3	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Bromomethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Chloroethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	10	NSL	NSL	NSL	<10	NA	<10	NA	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	1	30	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	1	60	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	1	60	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromochloromethane	1	250	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chloroform	1		NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2,2-dichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	1	3	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Cyclohexane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	1	3	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Benzene	1	1	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromomethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Trichloroethene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	1	100	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	1	100	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Toluene	1	800	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3-dichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Dibromochloromethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tetrachloroethene	1	50	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	300	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	300	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromoform	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
m+p-xylene	2	NSL	NSL	NSL	<2	NA	<2	NA	<2	<2	<2	<2	<2	<2
Styrene	1	30	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
o-xylene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	**1**	**1**	**2**	**1**	<1
1,2,3-trichloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Isopropylbenzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Bromobenzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-propyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
2-chlorotoluene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-chlorotoluene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Tert-butyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	**1**	**1**	<1	<1
1,3-dichlorobenzene	1	20	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Sec-butyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	1	40	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
4-isopropyl toluene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	1	1500	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
n-butyl benzene	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	1	NSL	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	1	30	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	1		NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	1	0.7	NSL	NSL	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
GIL >PQL — Red

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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-cd)pyrene | Dibenz(a,h)anthra-cene | Benzo(g,h,i)perylene | 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 | Azinphos-methyl (Guthion) | Bromophos-ethyl | Chlorpyriphos | Chlorpyriphos-methyl | Diazinon | Dichlorvos | Dimethoate | Ethion | Fenitrothion | Malathion | Parathion | Ronnel | Total PCBS | Arsenic | Cadmium | Chromium | Copper | Lead | Mercury | Nickel | Zinc |
|---|---|---

TABLE Q2
GROUNDWATER QA/QC SUMMARY

		Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	Trans-1,2-dichloroethene	1,1-dichloroethane	Cis-1,2-dichloroethene	Bromochloromethane	Chloroform	2,2-dichloropropane	1,2-dichloroethane	1,1,1-trichloroethane	1,1-dichloropropene	Cyclohexane	Carbon tetrachloride	Benzene	Dibromomethane	1,2-dichloropropane	Trichloroethene	Bromodichloromethane	trans-1,3-dichloropropene	cis-1,3-dichloropropene	1,1,2-trichloroethane	Toluene	1,3-dichloropropane	Dibromochloromethane	1,2-dibromoethane	Tetrachloroethene	1,1,1,2-tetrachloroethane	Chlorobenzene	Ethylbenzene	Bromoform	m+p-xylene	Styrene	1,1,2,2-tetrachloroethane	o-xylene	1,2,3-trichloropropane	Isopropylbenzene	Bromobenzene	n-propyl benzene	2-chlorotoluene	4-chlorotoluene	1,3,5-trimethyl benzene	Tert-butyl benzene	1,2,4-trimethyl benzene	1,3-dichlorobenzene	Sec-butyl benzene	1,4-dichlorobenzene	4-isopropyl toluene	1,2-dichlorobenzene	n-butyl benzene	1,2-dibromo-3-chloropropane	1,2,4-trichlorobenzene	Hexachlorobutadiene	1,2,3-trichlorobenzene
	PQL Envirolab SYD	*10*	*10*	*10*	*10*	*10*	*10*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
	PQL Envirolab VIC	*10*	*10*	*10*	*10*	*10*	*10*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
Intra	MW122	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
laboratory	WDUP101	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<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	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	1.5	nc	nc	nc	nc	nc	nc	nc	nc	1	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	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	nc	nc	nc	nc	nc	nc	nc	nc
Inter	MW18	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
laboratory	WDUP102	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<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	nc	nc	nc	nc	nc	nc	nc	nc	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	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB-W101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blank	15/10/2024																																																																

		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	Arsenic	Cadmium	Chromium VI	Copper	Lead	Mercury	Nickel	Zinc
	PQL Envirolab SYD	*10*	*50*	*100*	*100*	*1*	*1*	*1*	*2*	*1*	*0.2*	*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*	*0.1*	*1*	*0.1*	*1*	*1*	*1*	*0.05*	*1*	*1*
	PQL Envirolab VIC	*10*	*50*	*100*	*100*	*1*	*1*	*1*	*2*	*1*	*0.2*	*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*	*0.1*	*1*	*0.1*	*1*	*1*	*1*	*0.05*	*1*	*1*
Intra	MW122	<10	82	180	<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	<1	0.2	<1	2	<1	<0.05	12	51
laboratory	WDUP101	<10	85	180	<100	<1	<1	<1	<2	2	<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	<1	0.2	<1	2	<1	<0.05	12	50
duplicate	MEAN	nc	83.5	180	nc	nc	nc	nc	nc	1.5	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0.2	nc	2	nc	nc	12	50.5
	RPD %	nc	4%	0%	nc	nc	nc	nc	nc	67%	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0%	nc	0%	nc	nc	0%	2%
Inter	MW18	<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	<1	0.2	<1	7	<1	<0.05	100	560
laboratory	WDUP102	<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	<1	0.16	<1.	9	<1.0	<0.05	130	680
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	nc	0.18	nc	8	nc	nc	115	620
	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	nc	22%	nc	25%	nc	nc	26%	19%
Field	TB-W101	<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	<1	<0.1	<1	<1	<1	<0.05	<1	<1
Blank	15/10/2024																																
Trip	TS-W101	-	-	-	-	120%	107%	117%	120%	117%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Spike	15/10/2024																																

Result outside of QA/QC acceptance criteria Value

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TABLE Q3
SOIL VAPOUR QA/QC SUMMARY
All results in ug/m3 unless stated otherwise.

	Intra-laboratory Duplicate		
	SV7	**SVDUP1**	**RPD%**
Total Recoverable Hydrocarbons (TRH)			
TRH F1	<200	<200	nc
TRH F2	<40	<40	nc
Monocyclic Aromatic Hydrocarbons (BTEX Compounds)			
Benzene	**7**	**3**	80%
Toluene	**10**	160	176%
Ethylbenzene	**3**	<2.2	93%
Xylenes	**7**	<2.2	146%
Polycyclic Aromatic Hydrocarbons (PAHs)			
Naphthalene	<2.6	<2.6	nc
Volatile Organic Compounds (VOCs), including chlorinated VOCs #			
Propylene	**19**	**38**	67%
Dichlorodifluoromethane	<2.5	**4**	105%
Chloromethane	<1	**2**	120%
Ethanol	**30**	**95**	104%
Acetone	**20**	**20**	0%
Isopropyl Alcohol	**20**	**320**	176%
Methylene chloride(Dichloromethane)	<17	**30**	112%
Hexane	**4**	**3**	29%
Chloroform	**4**	<2.4	71%
Heptane	**3**	<2	100%
Trichloroethene	**10**	<2.7	152%
m-& p-Xylene	**5**	<4.3	80%
Styrene	**10**	**3**	108%
o-Xylene	**2**	<2.2	58%
1,2,4-Trimethylbenzene	**4**	<2.5	105%
1,4-Dichlorobenzene	**20**	**6**	108%

Exceedance of QA/QC criteria **Value**
Concentration above PQL **Bold**
VOC data has only been tabulated for compounds with detection above the PQLs

Shroud Leak Test	Isopropanol (Shroud) - From SV7	Isopropanol SV1 concentration	Isopropanol SV1 concentration (Lab-Duplicate)	Isopropanol SV2 concentration	Isopropanol SV3 concentration	Isopropanol SV4 concentration	Isopropanol SV5 concentration	Isopropanol SV6 concentration	Isopropanol SV7 concentration
Isopropanol (ug/m3)	430000	1000	1000	20	460	60	20	20	320

Result outside of QA/QC acceptance criteria **Value**

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Appendix D: Borehole Logs

JKEnvironments

ENVIRONMENTAL LOG

Log No. **BH1** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 57.4m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	D			SCREEN: 5.80kg (<10L) 0.03-0.4m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	M			SCREEN: 9.36kg (<10L) 0.4-1.0m, NO FCF
							1			FILL: Silty sand, fine to medium grained, grey, trace of sandstone cobbles, igneous gravel and metal fragments.	w<PL			SCREEN: 4.95kg (<10L) 1.0-1.7m, NO FCF
						N = 14 4,4,10				FILL: Silty clay, low to medium plasticity, brown, trace of igneous and sandstone gravel, and ash.				
									CI-CH	Silty CLAY: medium to high plasticity, grey and orange brown, trace of ironstone gravel.	w<PL			RESIDUAL
							2			END OF BOREHOLE AT 1.95m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. BH2 **1/1**

SDUP9: 0.5-0.95

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 57.4m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 6.05kg (<10L) 0.02-0.5m, NO FCF
										FILL: Silty gravelly sand, light brown, fine to medium grained igneous gravel.				
						N = 18 13,9,9				FILL: Silty sandy clay, low plasticity, brown, fine to medium grained sand, trace of igneous and sandstone gravel, slag, metal fragments and ash.	w<PL			SCREEN: 7.45kg (<10L) 0.5-1.5m, FCF1
							1							
						N = 4 3,2,2								SCREEN: 1.45kg (<10L) 1.5-1.7m, NO FCF
									CI-CH	Silty CLAY: medium to high plasticity, yellow brown and orange brown, trace of ironstone gravel.	w≈PL			RESIDUAL
							2			END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **BH3** **1/1**

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 56.3m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION						N = 4 1,2,2	0		-	ASPHALTIC CONCRETE: 10mm.t	M			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, brown, fine to medium grained igneous gravel, trace of ash.	w>PL			SCREEN: 4.45kg 0.1-1.1m, NO FCF
							1			FILL: Silty clay, medium to high plasticity, brown, trace of igneous and ironstone gravel, wood and ash.				SCREEN: 3.33kg 1.1-2.0m, NO FCF
						N = 4 1,2,2	2			END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH4** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 58.1m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 20mm.t	M			SCREEN: 4.53kg (<10L)
										FILL: Silty gravelly sand, fine to medium grained, brown, fine to medium grained igneous gravel.	w<PL			0.02-0.3m, NO FCF
						N = 12 6,5,7				FILL: Silty clay, medium to high plasticity, brown and orange brown, trace of igneous and ironstone gravel, and ash.				SCREEN: 5.45kg (<10L) 0.3-1.3m, NO FCF
							1							SCREEN: 5.10kg (<10L) 1.3-1.6m, NO FCF
						N = 13 8,6,7			CI-CH	Silty CLAY: medium to high plasticity, orange brown mottled red brown, trace of ironstone gravel.	w<PL			RESIDUAL
							2			END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH5
1 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING										-	ASPHALTIC CONCRETE: 30mm.t	D			APPEARS POORLY COMPACTED
											FILL: Gravelly sand, fine to coarse grained, dark grey and grey, fine to medium grained igneous and ironstone gravel, trace of clay nodules.	w>PL			SCREEN: 3.9kg (<10L) 0.03-0.23m, NO FCF
						N = 6 2,3,3	58				FILL: Silty clay, high plasticity, grey, brown and dark grey, with fine to medium grained igneous, ironstone and sandstone gravel, trace of fine to medium grained sand and ash.			200 210 220	SCREEN: 2.16kg (<10L) 0.23-0.5m, NO FCF
								1							INSUFFICIENT RETURN FOR BULK SCREEN
															SCREEN: 2.65kg (<10L) 1.0-2.0m, NO FCF
						N = 6 2,3,3	57							230 210 180	
								2		CH	Silty CLAY: high plasticity, light grey, orange brown and red brown, with fine to medium grained ironstone gravel.	w~PL	Hd		RESIDUAL
							56			-	Extremely Weathered siltstone: silty CLAY, low plasticity, light grey, grey and red brown, with fine to medium grained ironstone gravel.	XW	Hd		ASHFIELD SHALE
						N = 29 13,14,15		3						>600 >600	
							55				SILTSTONE: grey, dark grey and red brown, with occasional extremely weathered and iron indurated bands.	DW	VL		VERY LOW 'TC' BIT RESISTANCE
								4							
							54								
								5							
							53								
								6							
							52								VERY LOW TO LOW RESISTANCE

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ENVIRONMENTAL LOG

Log No.
BH5
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
							51			-	SILTSTONE: grey, dark grey and red brown, with occasional extremely weathered and iron indurated bands. *(continued)*	DW	VL - L		
								8			SILTSTONE: dark grey and grey, with occasional iron indurated bands.		L - M		LOW TO MODERATE RESISTANCE
							50						M		MODERATE RESISTANCE
								9			REFER TO CORED BOREHOLE LOG				
							49								
								10							
							48								
								11							
							47								
								12							
							46								
								13							
							45								

JK 9.02.4 LIB:GLB Log JK AUGERHOLE - MASTER E36466PR MACQUARIEPARK.GPJ <<DrawingFile>> 12/03/2024 13:36 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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CORED ENVIRONMENTAL LOG

Log No. BH5 3 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
		50			START CORING AT 8.56m						
80% RETURN					NO CORE 0.10m						
			9		SILTSTONE: dark grey and grey, bedded at 0-5°.	SW	M	0.30		(8.69m) J x 2, 90°, Ir, S, Fe Sn (8.78m) J, 30°, Ir, S, Fe Sn	
		49								(8.92m) J, 90°, Ir, S, Fe Sn	
										(9.07m) Be, 0°, P, S, Fe Vn (9.14m) J, 40°, C, S, Cn	
								0.60		(9.26m) J, 90°, Ir, S, Fe Sn	
								0.60		(9.64m) J, 20°, C, S, Cn	
			10							(9.87m) J, 90°, Un, S, Fe Ct	
										(10.04m) J, 20°, P, S, Cn (10.10m) J, 30°, Ir, S, Cn	
		48						0.50		(10.28m) J, 90°, C, S, Clay FILLED, 1 mm.t	
								0.60			
			11							(10.90m) J x 2, 10°, P, S, Clay FILLED, 2 mm.t	
								0.50			
		47								(11.40m) Be, 0°, P, S, Clay FILLED, 1 mm.t	
					LAMINITE: Siltstone, dark grey and grey, and Sandstone, fine grained, light grey, bedded at 0-10°.			0.90		(11.65m) J, 90°, C, S, Cn	
										(11.87m) Be, 0°, P, S, Clay FILLED, 1 mm.t	
			12							(12.11m) XWS, 0°, 10 mm.t	
										(12.25m) XWS, 0°, 25 mm.t	
								0.70		(12.39m) XWS, 0°, 10 mm.t (12.43m) XWS, 5°, 10 mm.t	
		46								(12.63m) CS, 0°, 55 mm.t	
30% RETURN					SANDSTONE: fine to medium grained, light grey, with dark grey laminae and occasional siltstone bands, bedded at 0-15°.	FR	H	1.3		(12.82m) J, 25°, Un, R, Cn	
			13							(13.04m) Be, 0°, P, R, Cn (13.11m) Be, 0°, P, R, Clay FILLED, 1 mm.t	
								2.3			
		45						1.3			
								1.0			
			14							(14.25m) Be, 5°, P, S, Cn	
								2.5			
		44								(14.64m) Be, 15°, P, S, Cn	
								1.7			

Ashfield Shale

Hawkesbury Sandstone

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CORED ENVIRONMENTAL LOG

Log No. **BH5** **4 / 4**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~58.5 m

Date: 3/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./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	DEFECT DETAILS SPACING (mm) 600 200 60 20 DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
30% RETURN		43 42	16		SANDSTONE: fine to medium grained, light grey, with dark grey laminae and occasional siltstone bands, bedded at 0-15°. *(continued)*	FR	H	2.3 1.8 1.9 2.4 2.2		Hawkesbury Sandstone
		41 40 39 38 37	17 18 19 20 21		END OF ENVIRONMENTAL HOLE AT 16.98 m					

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ENVIRONMENTAL LOG

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Log No. BH6 **1/1**

SDUP8: 0.025-0.4

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 59.9m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 25mm.t	D			SCREEN: 3.75kg (<10L) 0.025-0.4m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	w<PL			SCREEN: 10.02kg 0.4-1.2m, NO FCF
						N = 17 5,9,8	1			FILL: Silty clay, low to medium plasticity, brown, trace of sandstone and ironstone gravel, sand and ash.				
									CI-CH	Silty CLAY: medium to high plasticity, grey and orange brown, trace of ironstone gravel.	w<PL			RESIDUAL
						N > 8 12,8/ 50mm REFUSAL	2		-	Extremely Weathered siltstone: silty gravelly CLAY, low to medium plasticity, grey, fine to medium grained siltstone gravel.	XW			ASHFIELD SHALE
										END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. BH7

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~61.1 m

Date: 5/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** J.F./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING							61			-	ASPHALTIC CONCRETE: 50mm.t				
											FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	M			SCREEN: 5.39kg (<10L) 0.05-0.3m, NO FCF
												w<PL			SCREEN: 1.06kg (<10L) 0.3-1.2m, NO FCF
						N = 28 4,11,17					FILL: Silty clay, high plasticity, light grey and red brown, trace of fine to medium grained ironstone gravel.			>600 >600 >600	
							60	1		-	Extremely Weathered siltstone: silty CLAY, high plasticity, grey, with iron indurated bands.	XW	Hd		ASHFIELD SHALE
						N > 16 8,16/ 100mm REFUSAL								>600 >600 >600	
							59	2			SILTSTONE: grey, with iron indurated bands.	DW	VL		VERY LOW 'TC' BIT RESISTANCE WITH MEDIUM BANDS
							58	3			as above, but with extremely weathered and iron indurated bands.		L		LOW RESISTANCE WITH VERY LOW AND MEDIUM BANDS
							57	4							
							56	5			SILTSTONE: dark grey, with iron indurated bands.		L - M		LOW TO MODERATE RESISTANCE WITH VERY LOW BANDS
							55	6			REFER TO CORED BOREHOLE LOG				

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CORED ENVIRONMENTAL LOG

Log No. BH7 2 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~61.1 m

Date: 5/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
		56			START CORING AT 5.42m						
					NO CORE 0.46m						
98% RETURN		55	6		SILTSTONE: dark grey, with grey laminae and red brown bands, bedded at 0-10°.	HW	L - M	0.20		(5.90m) Be, 0°, P, S, Fe Vn (5.91m) Be, 0°, P, S, Fe Vn (5.96m) Be, 0°, P, S, Fe Vn (5.97m) Be, 0°, P, S, Fe Vn (6.00m) Be, 0°, P, S, Fe Vn (6.01m) Be, 0°, P, S, Fe Vn (6.03m) Be, 0°, P, S, Fe Ct (6.04m) Be, 0°, P, S, Fe Vn (6.11m) Be, 0°, P, S, Fe Vn (6.31m) Cr, 0°, 10 mm.t (6.38m) Be, 10°, P, S, Fe Vn (6.40m) Cr, 0°, 10 mm.t (6.42m) Be, 10°, Ir, S, Fe Vn (6.46m) Be, 0°, P, S, Fe Vn (6.47m) Be, 0°, P, S, Fe Vn (6.49m) Cr, 0°, 10 mm.t (6.52m) Cr, 0°, 10 mm.t (6.55m) Be, 5°, P, S, Fe Vn (6.55m) Be, 0°, P, S, Fe Vn (6.63m) J, 15°, P, S, Fe Vn (6.64m) Be, 0°, P, S, Fe Ct (6.73m) Cr, 0°, 70 mm.t (6.81m) Cr, 0°, 10 mm.t (6.85m) Be, 0°, P, S, Fe Vn (6.93m) Cr, 0°, 80 mm.t (7.00m) Be, 5°, P, S, Fe Ct (7.07m) Cr, 5°, 10 mm.t (7.10m) Be, 10°, P, S, Fe Vn (7.14m) Cr, 0°, 10 mm.t (7.34m) J, 65°, Un, S, Cn (7.51m) Cr, 0°, 90 mm.t (7.60m) Jh, 20°, P (7.61m) Be, 0°, P, S, Fe Vn (7.64m) Be, 5°, P, S, Fe Vn (7.68m) Be, 0°, P, S, Fe Vn (7.75m) Cr, 10°, 6 mm.t (7.81m) Cr, 0°, 6 mm.t (7.88m) Be, 0°, P, S, Fe Vn (7.90m) Be, 0°, P, S, Fe Vn (8.16m) Be, 10°, P, S, Fe Vn (8.19m) J, 25°, P, S, Cn (8.27m) J, 40°, P, S, Cn (8.31m) J, 35°, P, S, Fe Vn (8.36m) J, 40°, P, S, Fe Vn (8.43m) J, 75°, P, S, Fe Vn (8.48m) Cr, 0°, 70 mm.t (8.79m) J, 30°, Ir, S, Cn (9.40m) J, 60°, P, S, Cn (9.46m) Jh, 60°, P (9.52m) J, 70°, P, S, Cn (9.58m) J, 30°, P, S, Cn (9.69m) J, 60°, P, S, Cn (9.72m) J, 25°, P, S, Cn (9.82m) J, 20°, P, S, Cn (10.02m) J, 80°, P, S, Cn (10.16m) J x 2, 80°, P, S, Cn (10.26m) J, 80°, P, S, Cn (10.49m) J, 30°, P, S, Clay Vn (11.14m) J, 75°, P, S, Cn (11.30m) J, 75°, P, S, Cn (11.36m) CS, 0°, 15 mm.t (11.40m) Jh, 65°, P	Ashfield Shale
		54	7			MW	M	0.50			
		53	8		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°.	SW	M - H	0.40 2.0 1.1			
		52	9					1.0			
		51	10					0.70 1.0			
		50	11					2.3 0.60 1.2			

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CORED ENVIRONMENTAL LOG

Log No. BH7 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~61.1 m

Date: 5/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./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 $I_s(50)$	DEFECT DETAILS SPACING (mm) DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
98% RETURN		49	13		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	SW	M - H	1.5 0.80	(12.71m) Be, 0°, P, S, Clay FILLED (12.84m) XWS, 0°, 5 mm.t (12.98m) Jh, 85°, P	Ashfield Shale
		48			LAMINITE: Siltstone, dark grey and grey, and Sandstone, fine to medium grained, light grey, bedded at 0-10°.			1.4 0.60	(13.24m) Be, 5°, P, R, Cb Vn	
		47	14					1.6 1.8		
		46	15		SANDSTONE: fine to medium grained, grey, with dark grey laminae, bedded at 0-5°.			2.0 1.0	(14.66m) CS, 10°, 10 mm.t (14.76m) Be, 5°, P, R, Clay Vn (15.06m) Be, 0°, P, S, Clay Vn (15.29m) Be, 0°, P, R, Clay Vn (15.44m) J, 65°, P, R, Cn	
		45	16		as above, but fine grained and dark grey.			2.1 0.60	(15.67m) Be, 5°, P, R, Clay Vn (16.11m) Be, 0°, P, S, Clay Vn (16.20m) Be, 0°, P, S, Clay Vn	
		44	17		SANDSTONE: fine to medium grained, grey, bedded at 0-5°. END OF ENVIRONMENTAL HOLE AT 16.26 m					
		43	18							

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ENVIRONMENTAL LOG

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Log No. BH8 **1/1**

SDUP4: 0.03-0.4

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 61.9m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 5.50kg (<10L) 0.03-0.4m, NO FCF
										FILL: Silty sand, fine to medium grained, brown, trace of igneous gravel.	w≈PL			SCREEN: 5.93kg (<10L) 0.4-1.4m, NO FCF
						N = 13 7,5,8	1			FILL: Gravelly clay, low plasticity, brown, fine to medium grained, sub-angular igneous and ironstone gravel, trace of sand and ash.				
						N = 23 5,10,13	2		CI-CH	Silty CLAY: medium to high plasticity, yellow brown and orange brown, trace of ironstone gravel.	w<PL			RESIDUAL
							3		-	Extremely Weathered sandstone: silty CLAY, low to medium plasticity, orange brown.	XW			HAWKESBURY SANDSTONE
										SANDSTONE: orange brown.	DW			GROUNDWATER MONITORING WELL INSTALLED TO 5.6m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.6m TO 5.6m. CASING 0.03m TO 2.6m. 2mm SAND FILTER PACK 2.5m TO 5.6m. BENTONITE SEAL 2.0m TO 2.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							4							
							5							
							6			END OF BOREHOLE AT 6.0m				
							7							

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ENVIRONMENTAL LOG

Log No.
BH9
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	ASS	ASB	SAL	DB	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 OF AUGERING							62			-	ASPHALTIC CONCRETE: 35mm.t FILL: Gravelly silty sand, fine to coarse grained, grey brown, fine to medium grained igneous and ironstone gravel.	M			SCREEN: 3.0kg (<10L) 0.035-0.4m, NO FCF
						N=SPT 8/ 50mm REFUSAL					as above, but dark grey.				SCREEN: 3.56kg (<10L) 0.4-0.8m, NO FCF
							61	1			FILL: Silty clay, low plasticity, grey and brown, trace of fine grained igneous gravel and fine to medium grained sand.	w>PL			APPEARS POORLY COMPACTED POSSIBLY REWORKED NATURAL SCREEN: 4.73kg (<10L) 0.8-1.7m, NO FCF
						N = 8 2,3,5				CH	Silty CLAY: high plasticity, light grey mottled red brown, trace of fine to medium grained ironstone gravel, root fibres and ash.	w>PL	(St - VSt)	180 200 220	RESIDUAL
							60	2				w<PL	Hd		VERY LOW 'TC' BIT RESISTANCE WITH SOIL RESISTANCE
						N > 30 14,15,15/ 50mm REFUSAL	59	3						>600 >600 >600	
								4		-	Extremely Weathered siltstone: gravelly silty CLAY, medium plasticity, grey and red brown, with ironstone bands.	XW	Hd		ASHFIELD SHALE LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							58	5			SILTSTONE: dark grey, with extremely weathered bands and iron indurated bands.	DW	VL - L		MODERATE RESISTANCE BANDED WITH SOIL RESISTANCE
							57	6							LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							56								

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ENVIRONMENTAL LOG

Log No.
BH9
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey, with extremely weathered bands and iron indurated bands.	DW	VL - L		MODERATE RESISTANCE
							55				REFER TO CORED BOREHOLE LOG				
								8							
							54								
								9							
							53								
								10							
							52								
								11							
							51								
								12							
							50								
								13							
							49								

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CORED ENVIRONMENTAL LOG

Log No. BH9 3 / 4

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Client: TTW

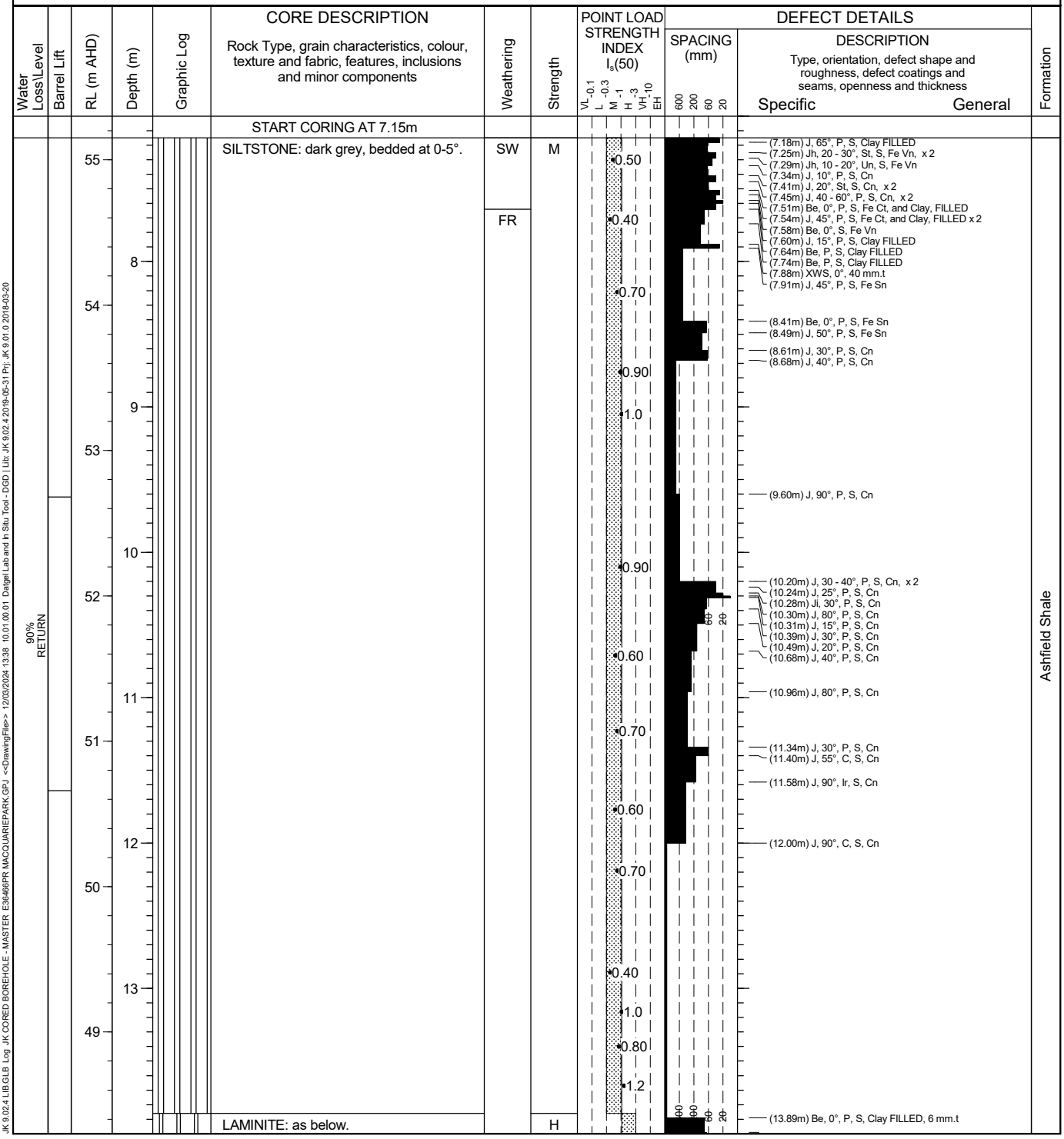
Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.



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CORED ENVIRONMENTAL LOG

Log No. BH9 4 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~62.3 m

Date: 4/12/23 TO 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
90% RETURN		48	15		LAMINITE: Siltstone, dark grey, and Sandstone, fine to medium grained, light grey, bedded at 0-5°.	FR	H	2.6, 1.2, 2.7, 1.6, 4.4, 1.5, 2.5		(13.99m) CS, 0°, 15 mm.t (14.07m) Be, 0°, P, S, Clay FILLED, 7 mm.t (14.15m) XWS, 0°, 7 mm.t	Ashfield Shale
		47									
		46	16								
		45	17		END OF ENVIRONMENTAL HOLE AT 16.48 m						
		44	18								
		43	19								
		42	20								

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ENVIRONMENTAL LOG

Log No. **BH10** **1/1**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 62.5m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 40mm.t	M			SCREEN: 6.65kg (<10L) 0.04-0.45m, NO FCF
						N = 16 4,9,7				FILL: Silty gravelly sand, fine to medium grained, brown, fine to medium grained, sub-angular igneous gravel.	w≈PL			SCREEN: 7.15kg (<10L) 0.45-1.45m, NO FCF
							1			FILL: Sandy clay, low plasticity, brown, fine to medium grained sand, trace of sandstone gravel, tile fragments and slag.				
						N = 24 3,8,16								INSUFFICIENT RETURN FOR BULK SCREEN
							2		-	Extremely Weathered sandstone: silty CLAY, low to medium plasticity, orange brown.	XW			HAWKESBURY SANDSTONE
										END OF BOREHOLE AT 2.5m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH11** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 62.6m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	D			SCREEN: 2.50kg (<10L)
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	w<PL			0.03-0.3m, NO FCF
						N = 12 5,5,7				FILL: Silty clay, low to medium plasticity, brown, trace of sandstone and ironstone gravel, and ash.	w<PL			SCREEN: 8.95kg (<10L) 0.3-0.7m, NO FCF
							1		CI-CH	Silty CLAY: medium to high plasticity, grey and orange brown, trace of ironstone gravel.				RESIDUAL
						N > 8 15,8/ 50mm REFUSAL			-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey, with distinctly weathered siltstone bands.	XW			ASHFIELD SHALE
							2			END OF BOREHOLE AT 1.7m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH12
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** J.F./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING										-	ASPHALTIC CONCRETE: 50mm.t FILL: Gravelly sand, fine to medium grained, dark grey and brown, fine to medium grained sandstone, ironstone and igneous gravel, trace of clay nodules.	M			APPEARS WELL COMPACTED SCREEN: 3.5kg (<10L) 0.05-0.5m, NO FCF SCREEN: 2.6kg (<10L) 0.5-1.0m, NO FCF SCREEN: 2.4kg (<10L) 1.0-1.4m, NO FCF
						N = 14 5,5,9	64	1							
						N = 11 5,4,7	63	2			FILL: Silty clay, high plasticity, orange brown and dark grey, trace of fine to medium grained igneous and ironstone gravel.	w>PL		340 320 300	SCREEN: 3.23kg (<10L) 1.4-2.0m, NO FCF INSUFFICIENT RETURN FOR BULK SCREEN
						N > 21 9,9,12/ 100mm REFUSAL	62	3		-	Extremely Weathered siltstone: silty CLAY, high plasticity, grey and red brown, with iron indurated bands.	XW	Hd	>600 >600 >600	ASHFIELD SHALE
							61	4			SILTSTONE: grey, with iron indurated bands.	DW	L		LOW 'TC' BIT RESISTANCE WITH MEDIUM BANDS
							60	5			as above, but dark grey, with extremely weathered bands.				LOW RESISTANCE WITH VERY LOW BANDS
							59	6							

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ENVIRONMENTAL LOG

Log No.
BH12
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** J.F./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey, with iron indurated and extremely weathered bands.	DW	L		
							57	8			SILTSTONE: dark grey, with iron indurated bands.				LOW RESISTANCE
							56	9							
							55	10					L - M		LOW TO MODERATE RESISTANCE
											REFER TO CORED BOREHOLE LOG				'TC' BIT REFUSAL
							54	11							
							53	12							
							52	13							

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CORED ENVIRONMENTAL LOG

Log No. **BH12** **3 / 4**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./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 $I_s(50)$	DEFECT DETAILS SPACING (mm)	DEFECT DETAILS DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
					START CORING AT 10.32m						
98% RETURN		54	11		SILTSTONE: dark grey, with grey laminae, bedded at 0-5°.	SW	H	1.2, 0.50, 1.3, 1.7, 1.7, 2.1, 2.0, 2.3, 1.8, 1.0, 1.3, 0.90	600 200 60 20	(10.73m) Be, 5°, P, S, Clay Ct (10.78m) Cr, 0°, 50 mm.t (10.85m) J, 85°, P, S, Fe Vn (10.93m) Cr, 0°, 90 mm.t (11.38m) J, 70°, P, S, Cn (11.39m) J, 60°, P, S, Cn (11.74m) J, 60°, P, S, Cn (12.12m) J, 40°, P, S, Cn (12.18m) J, 85°, P, S, Cn (12.68m) J, 65°, P, S, Cn (12.81m) Cr, 0°, 10 mm.t (12.90m) J, 60°, P, S, Cn (14.11m) J, 70°, P, S, Cn (14.20m) Be, 0°, P, S, Clay Ct (14.51m) J, 25°, P, S, Clay Vn (15.81m) CS, 0°, 50 mm.t (15.92m) Cr, 0°, 150 mm.t (16.09m) J, 75°, P, R, Cn (16.34m) Cr, 0°, 30 mm.t (16.50m) Cr, 10°, 15 mm.t (16.64m) Be, 15°, P, R, Clay Vn (16.64m) J, 90°, P, S, Cn (16.85m) Be, 10°, P, R, Clay Ct	Ashfield Shale
		49	16		LAMINITE: Siltstone, dark grey and grey, and Sandstone: fine to medium grained, light grey, bedded at 0-15°.	SW	M	0.90, 1.1			

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CORED ENVIRONMENTAL LOG

Log No. BH12 4 / 4

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** J.F./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)	DEFECT DETAILS: 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
					LAMINITE: Siltstone, dark grey and grey, and Sandstone: fine to medium grained, light grey, bedded at 0-15°.	SW	M	0.40			
					END OF ENVIRONMENTAL HOLE AT 17.20 m						
		47	18								
		46	19								
		45	20								
		44	21								
		43	22								
		42	23								

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ENVIRONMENTAL LOG

Log No. **BH13** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.6m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	ASS	ASB	PFAS	DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 3.95kg (<10L) 0.03-0.4m, NO FCF
										FILL: Silty sand, fine to medium grained, grey, trace of igneous gravel.	w≈PL			SCREEN: 9.9kg 0.3-1.3m, NO FCF
						N = 11 6,6,5				FILL: Silty gravelly clay, low to medium plasticity, brown, fine to medium grained, sub-angular igneous gravel, trace of slag.				
							1							SCREEN: 2.75kg (<10L) 1.3-1.7m, NO FCF
						N = 19 3,9,10			-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, with distinctly weathered silstone bands, trace of ironstone bands.	XW			ASHFIELD SHALE
							2							
										END OF BOREHOLE AT 2.8m				
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH14
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.8 m

Date: 28/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING										-	ASPHALTIC CONCRETE: 18mm.t	D			SCREEN: 3.68kg (<10L) 0.02-0.3m, NO FCF
											FILL: Gravelly silty sand, fine to coarse grained, grey, fine to medium grained igneous gravel, trace of slag.				
										CL-CI		w>PL	VSt		RESIDUAL
						N = 9 3,3,6					Gravelly silty CLAY: low to medium plasticity, grey, light grey and red brown, fine to medium grained siltstone and ironstone gravel.			250 290 350	
							65	1							
										-	Extremely Weathered siltstone: gravelly silty CLAY, high plasticity, light grey and red brown, with very low to low strength siltstone bands and ironstone bands.	XW	Hd		ASHFIELD SHALE VERY LOW 'TC' BIT RESISTANCE
							64	2							
											LAMINITE: Sandstone, fine grained, light grey, with dark grey sandstone laminae.	DW	L		LOW TO MODERATE RESISTANCE BANDED WITH SOIL RESISTANCE
							63	3			REFER TO CORED BOREHOLE LOG				
							62	4							
							61	5							
							60	6							
							59								

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CORED ENVIRONMENTAL LOG

Log No. BH14 2 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.8 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 2.55m						
		63	3		NO CORE 0.36m						
		62	4		Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, light grey and grey, fine to medium grained siltstone and ironstone gravel.	XW	Hd				Ashfield Shale
		61	5		NO CORE 0.26m						
85% RETURN		60	6		SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°.	SW	L	0.40	20	(4.83-5.83m) Bex multiple, 0 - 5°, P, R, Fe Sn, ~50mm spacing (4.83-5.83m) XWS, 0 - 5°, 10-15mm.t (5.40-5.90m) J x 6, 20 - 55°, P, R, Fe Sn	Ashfield Shale
		59	7					0.60		(5.83-7.00m) XWSx multiple, 0 - 5°, 10-50mm.t	
		58	8				M	0.20 0.40 1.2		(7.12-7.52m) XWS x 4, 0 - 5°, 10-30mm.t (7.00-8.18m) Bex multiple, 0 - 5°, P, R, Cn, or Fe, Sn (7.70m) J, 85°, P, R, Fe Sn (7.88-8.03m) XWS x 2, 3°, 5-10mm.t (8.16-8.37m) XWS x 2, 0°, 2-5mm.t	
		57						0.80 0.80	60 20		

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CORED ENVIRONMENTAL LOG

Log No. BH14 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.8 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
85% RETURN		56	10		SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°. *(continued)*	SW	M	0.80		(9.00m) J, 85°, P, R, Fe Sn (9.03m) XWS, 5°, 5 mm.t (8.18-10.00m) Bex multiple, 0 - 5°, P, R, Fe Sn	Ashfield Shale
								0.70		(9.47-10.00m) J x 5, 60 - 70°, P, R, Fe Sn	
		55	11				M - H	0.50		(10.03m) Ji, 35°, P, R, Fe Sn (10.08-10.36m) Be x 8, 0 - 5°, P, R, Cn, or Fe, Sn	
								1.6		(10.56m) Be, 3°, P, R, Fe Sn (10.56-11.04m) J x 2, 75°, P, R, Fe Sn	
		54	12					1.6		(11.00-12.00m) J x 2, 75 - 85°, P, R, Cn (11.42-11.92m) Cr x 3, 10°, 20-60mm.t	
		53	13					1.0		(12.24m) J, 60°, P, R, Cn (12.36m) Cr, 5°, 140 mm.t (12.63m) J, 80°, P, R, Cn (12.90m) J, 80 - 90°, Un, R, Cn	
		52	14		as above, but with grey, fine grained sandstone bands, bedded at 0-5°.			0.80		(13.49m) Cr, 13°, 20 mm.t	
								0.70		(14.10m) J, 80°, P, R, Cn (14.18m) J, 80°, P, R, Cn	
		51	15					0.60		(14.75m) Be, 10°, Ir, R, Cn	
		50			END OF ENVIRONMENTAL HOLE AT 15.00 m					(15.00m) J, 35°, P, R, Cn	

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ENVIRONMENTAL LOG

Log No. **BH16** 1/1

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 66.2m

Date: 27/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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		-	ASPHALTIC CONCRETE: 10mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN ASHFIELD SHALE
	■		■						-	FILL: Sandy gravel, fine to medium grained, sub-angular igneous, brown, fine to medium grained sand.	XW			
	■		■				1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, brown, with distinctly weathered siltstone bands.				
	■		■							END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Environmental logs are not to be used for geotechnical purposes

Log No. **BH17** **1/1**

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 68.5m

Date: 27/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■		■		0		-	ASPHALTIC CONCRETE: 50mm.t				SCREEN: 3.3kg (<10L)
										FILL: Sandy gravel, fine to medium grained, sub-angular igneous, brown,				0.05-0.4m, NO FCF
	■		■						-	fine to medium grained sand.	XW			ASHFIELD SHALE
	■		■				1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, brown, with distinctly weathered siltstone bands.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH18
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~68.0 m

Date: 27/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING										-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 5.4kg (<10L) 0.01-0.2m, NO FCF
										-	FILL: Gravelly silty sand, fine to coarse grained, grey, fine to medium grained igneous gravel, and slag.	XW	Hd		RESIDUAL
											Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, red brown, fine to medium grained siltstone and ironstone gravel.	DW	L - M		ASHFIELD SHALE MODERATE 'V' BIT RESISTANCE BANDED WITH LOW RESISTANCE
							67	1			SILTSTONE: grey, with ironstone bands and fine grained sandstone bands.				
											REFER TO CORED BOREHOLE LOG				GROUNWATER MONITORING WELL INSTALLED TO 13.1m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 1.1m TO 13.1m. CASING 0.1m TO 1.1m. 2mm SAND FILTER PACK 0.5m TO 13.1m. BENTONITE SEAL 0.1m TO 0.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							66	2							
							65	3							
							64	4							
							63	5							
							62	6							

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CORED ENVIRONMENTAL LOG

Log No. **BH18** **2 / 3**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~68.0 m

Date: 27/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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	DEFECT DETAILS SPACING (mm) 600 200 60 20	DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
					START CORING AT 1.15m						
					NO CORE 0.40m						
		66	2		Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, grey, fine to medium grained siltstone and ironstone gravel, with low to medium strength siltstone and ironstone bands.	XW	Hd	0.60 0.30 0.30			Ashfield Shale
		65	3		NO CORE 0.28m						
ON 30/11/23 85% RETURN ON 12/12/23		64	4		LAMINITE: Siltstone, grey, bedded with Sandstone, fine grained, bedded at 0-5°.	MW	L	0.30 0.30 0.50 0.20 0.30		(3.38m) J, 80°, Ir, Vr, Fe Sn (3.33-3.57m) Be x 10, 0°, P, Vr, Fe Sn (3.53m) J, 60°, P, Vr, Cn (3.57m) Be, 0°, C, R, Cn (3.61-3.66m) Be x 4, 0°, P, R, Cn (3.71m) Be x 3, 3°, P, Vr, Fe Sn (3.79-3.91m) Be x 3, 5°, P, R, Fe Sn (4.05m) J, 65°, P, Vr, Fe Sn (4.10m) Be x 3, 5°, P, R, Cn (4.18m) J, 85°, St, Vr, Fe Sn (4.20-4.45m) Be x 10, 3 - 5°, P, Vr, Fe Sn (4.52m) Be, 0°, C, Vr, XW FILLED, 3 mm.t (4.68-4.98m) Be x 5, P, Vr, Fe Sn (4.92-5.20m) XWS x 4, 0 - 3°, 3 mm.t (5.32m) XWS, 5°, 35 mm.t (5.41m) Be, 0°, P, Vr, Fe Sn (5.51m) Be, 0°, P, R, Fe Sn, & XW, FILLED 2mm.t (5.56m) Be, 0°, P, R, XW FILLED, 2 mm.t (5.62m) XWS, 2°, 7 mm.t (5.64m) J, 60°, St, Vr, XW FILLED, 5 mm.t (5.66m) Ji, 60°, St, Vr, Fe Sn (5.68m) Be x 2, 0°, P, R, Fe Sn (5.71-5.74m) Be x 3, 0°, P, Vr, Fe Sn (5.76m) Be x 5, 3°, P, Vr, Fe Sn (5.81m) Be, 0°, P, R, Fe Sn (5.88m) XWS, 3°, 10 mm.t (5.95m) J, 70°, P, R, Fe Sn (6.02m) Be, 5°, P, Vr, Fe Sn (6.05m) XWS, 10°, 5 mm.t (6.10m) XWS, 7°, 15 mm.t (6.18m) J, 20°, P, R, Fe Sn (6.22m) Be, 5°, P, R, Fe Sn (6.32m) J, 60°, P, Vr, Fe Sn (6.38m) Be, 15°, P, R, Cn (6.47m) J, 10°, P, R, Fe Sn (6.50m) Be, 10°, P, R, Fe Sn (6.67-6.70m) Be x 2, 20°, P, R, Fe Sn (6.78m) J, 60°, P, Vr, Fe Sn, & XW, FILLED 15mm.t (7.13m) Be, 0°, P, R, Fe Sn (7.20-7.30m) J x 2, 65°, P, R, Cn (6.80-7.82m) J x 6, 50 - 80°, P, R, Fe Sn (7.39m) Be, 10°, P, R, Fe Sn (7.40m) Be, 10°, Ir, Vr, Cn (7.61m) J, 40°, P, Vr, Cn	Ashfield Shale
		62	6		SILTSTONE: grey, with fine grained sandstone laminae, bedded at 0-10°.	SW	M	0.90 0.40			
		61	7				M - H	0.70 1.4			

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CORED ENVIRONMENTAL LOG

Log No. BH18 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~68.0 m

Date: 27/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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)	DEFECT DETAILS: 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
85% RETURN		59	9		SILTSTONE: grey, with fine grained sandstone laminae, bedded at 0-10°. *(continued)*	SW	M - H	1.1, 1.0, 2.1		(8.15m) J, 80°, P, R, Cn (8.30m) J, 70°, P, R, XW FILLED, 4 mm.t (8.44m) J, 80°, P, R, Cn (8.56m) J, 60°, P, R, Cn (8.66m) J, 60°, C, Vr, XW FILLED, 3 mm.t (8.73m) J, 60°, P, R, Cn (8.78m) J, 70°, P, R, Cn (8.96m) J, 70°, P, R, Cn (9.07m) J, 45°, P, Vr, Cn (9.19m) J, 80°, St, Vr, Cn	Ashfield Shale
					NO CORE 0.12m						
		58	10		SILTSTONE: grey, with fine grained sandstone laminae, bedded at 0-10°.	SW	M	0.80, 0.70, 1.8, 0.90, 0.80, 0.50, 0.70, 0.90		(9.67m) J, 40°, P, R, Cn (9.77m) J, 75°, St, Vr, Cn (9.86-9.99m) J x 3, 45°, P, R, Cn (10.35m) J, 70°, P, R, Cn (10.86m) J, 50°, P, R, Cn (11.14m) J x 2, 75°, P, R, Cn (11.52m) J x 2, 60°, P, R, Cn (11.76m) Be, 0°, P, R, Sand FILLED, 1 mm.t (11.88m) J, 45°, C, R, Cn (11.97m) J, 80°, Ir, R, Cn (12.12m) J, 50°, P, R, Cn (12.70m) J, 10°, P, R, Cn (13.00m) J, 50°, P, R, Cn	Ashfield Shale
		57	11								
		56	12								
		55	13								
		54	14		END OF ENVIRONMENTAL HOLE AT 13.07 m						

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ENVIRONMENTAL LOG

Log No. **BH19** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 64.6m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 4.90kg (<10L) 0.02-0.4m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	w<PL			SCREEN: 6.74kg (<10L) 0.4-1.4m, NO FCF
						N = 16 8,10,6	1			FILL: Silty clay, low to medium plasticity, brown and orange brown, trace of sandstone and igneous gravel, and ash.				
						N = 8 4,3,5	2							SCREEN: 6.30kg (<10L) 1.4-2.4m, NO FCF
														SCREEN: 4.10kg (<10L) 2.4-2.8m, NO FCF
						N > 11 7,11/ 50mm REFUSAL	3		-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, light brown and grey.	XW			ASHFIELD SHALE
										END OF BOREHOLE AT 3.5m				
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH20** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.4m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 20mm.t	M			SCREEN: 6.35kg 0.02-0.5m, NO FCF
						N = 14 6,7,7	1			FILL: Silty sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel.	w<PL			SCREEN: 11.40kg 0.5-1.5m, NO FCF
						N = 13 4,6,7	2			FILL: Silty clay, low to medium plasticity, orange brown, trace of igneous and sandstone gravel.				SCREEN: 6.75kg (<10L) 1.5-2.1m, NO FCF
									-	Extremely Weathered sandstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, trace of sand.	XW			HAWKESBURY SANDSTONE
							3			END OF BOREHOLE AT 2.8m				
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH21
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING										-	ASPHALTIC CONCRETE: 40mm.t FILL: Silty clay, low to medium plasticity, light grey, brown and red brown, with fine to medium grained sand and fine to medium grained igneous and ironstone gravel.	w<PL			APPEARS WELL COMPACTED SCREEN: 2.3kg (<10L) 0.04-0.5m, NO FCF TOO FRIABLE FOR HP TESTING SCREEN: 3.05kg (<10L) 0.5-1.0m, NO FCF SCREEN: 2.01kg (<10L) 1.0-1.5m, NO FCF TOO FRIABLE FOR HP TESTING SCREEN: 3.02kg (<10L) 1.5-2.0m, NO FCF
						N = 19 5,8,11	64	1							
						N = 11 5,5,6	63	2		CL-Cl	Silty CLAY: low to medium plasticity, light grey, orange brown and red brown, with fine to medium grained ironstone gravel.	w~PL	Hd		RESIDUAL
						N > 11 10,11/ 100mm REFUSAL	62	3		-	Extremely Weathered siltstone: silty CLAY, low plasticity, light grey and red brown, with fine to medium grained ironstone gravel.	XW	Hd	>600 >600	ASHFIELD SHALE
							61	4			SILTSTONE: grey, dark grey and red brown, with occasional extremely weathered and iron indurated bands.	DW	VL - L		VERY LOW TO LOW 'TC' BIT RESISTANCE
							60	5							
							59	6					L		LOW RESISTANCE

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ENVIRONMENTAL LOG

Log No. BH21 2 / 4

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** Q.V./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey and grey.	DW	L - M		LOW TO MODERATE RESISTANCE
							57	8			REFER TO CORED BOREHOLE LOG				
							56	9							
							55	10							
							54	11							
							53	12							
							52	13							

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CORED ENVIRONMENTAL LOG

Log No. BH21 3 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./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 $I_s(50)$	SPACING (mm)	DEFECT DETAILS: DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness (Specific / General)	Formation
					START CORING AT 7.59m						
0% RETURN		57	8		SILTSTONE: dark grey, with red brown bands and grey laminae, bedded at 0-5°.	HW	L - M	0.40, 0.20, 0.50		(7.64m) Be, 5°, P, S, Clay Vn; (7.69m) Cr, 0°, 15 mm.t; (7.74m) Cr, 5°, 25 mm.t; (7.79m) Be, 5°, P, S, Clay Ct; (7.84m) Cr, 5°, 30 mm.t; (7.87m) CS, 5°, 10 mm.t; (7.89m) J, 60°, P, S, Cn; (7.98m) J, 40°, Ir, S, Cn; (8.05m) XWS, 0°, 10 mm.t; (8.07m) Be, 0°, P, S, Fe Ct; (8.12m) Be, 0°, P, S, Clay Vn; (8.16m) Cr, 0°, 10 mm.t; (8.25m) J, 25°, P, S, Clay Ct; (8.39m) J, 70°, P, S, Clay Vn; (8.60m) Cr, 0°, 430 mm.t	
							VL - L				
98% RETURN		56	9		SILTSTONE: dark grey, with grey laminae, bedded at 0-5°.	FR	M	0.50, 0.80, 0.90		(8.88m) Cr, 5°, 25 mm.t; (9.32m) J, 40°, P, S, Cn; (9.49m) Cr, 0°, 10 mm.t; (9.56m) Cr, 0°, 5 mm.t	
		55	10				M - H	1.0	200 60 20	(10.17m) J, 30°, P, S, Cn	
		54	11					0.80, 1.6		(10.51m) J x 2, 90°, P, S, Cn; (10.62m) Cr, 0°, 15 mm.t; (10.65m) J, 25°, P, S, Cn; (10.82m) J, 40°, P, S, Cn; (10.89m) J, 30°, P, S, Clay FILLED; (10.98m) J, 25°, P, S, Cn; (11.15m) J, 10°, P, S, Cn; (11.28m) J x 2, 90°, P, S, Cn; (11.32m) Cr, 0°, 30 mm.t	
		53	12					1.1, 1.3		(12.48m) J, 25°, P, S, Cn; (12.55m) J, 55°, P, S, Cn	
		52	13					0.60, 1.0		(12.97m) Be, 0°, P, S, Clay Ct; (13.12m) Cr, 0°, 15 mm.t; (13.42m) J, 40°, P, S, Cn; (13.55m) Be, 5°, P, S, Clay Vn; (13.63m) J, 15°, P, S, Cn	
								0.70	600 200 60 20		

Ashfield Shale

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CORED ENVIRONMENTAL LOG

Log No.
BH21
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.0 m

Date: 3/1/24 TO 4/1/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** Q.V./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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
98% RETURN		50	15		SILTSTONE: dark grey, with grey laminae, bedded at 0-5°. *(continued)*	FR	M - H	0.80		(14.41m) Be, 0°, P, S, Clay Ct	Ashfield Shale
										(14.70m) Be, 0°, P, S, Clay Ct	
								0.80			
								1.0			
								1.6		(15.66m) J, 25°, Ir, S, Cn	
								0.60		(15.92m) CS, 0°, 30 mm.t	
		49	16		LAMINITE: Siltstone, dark grey and grey, and Sandstone, fine to medium grained, light grey, bedded at 0-10°.					(16.12m) Be, 0°, P, R, Cn	
								0.70		(16.24m) CS, 0°, 30 mm.t	
								1.2		(16.72m) J, 30°, P, R, Cn	
										(16.90m) Be, 5°, P, R, Clay Ct	
		48	17					0.40		(17.22m) Cr, 0°, 3 mm.t	
								1.5		(17.80m) Be, 5°, P, R, Clay Ct	
										(17.84m) Jh, 70°, C	
		47	18					0.80		(18.09m) CS, 0°, 4 mm.t	
					END OF ENVIRONMENTAL HOLE AT 18.09 m						
		46	19								
		45	20								

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ENVIRONMENTAL LOG

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Log No. BH22 **1/1**

SDUP3: 0.1-0.15

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 64.2m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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		-	ASPHALTIC CONCRETE: 40mm.t	D			SCREEN: 3.47kg (<10L) 0.04-0.2m, NO FCF
										FILL: Gravelly sand, fine to coarse grained, grey brown, with fine to medium grained igneous gravel, trace of sandstone gravel, clay nodules, slag and glass fragments.	w<PL			SCREEN: 5.7kg (<10L) 0.2-0.6m, NO FCF
						N = 20 8,8,12			-	FILL: Silty clay, low plasticity, red brown, trace of igneous, ironstone and sandstone gravel, and clay nodules.	XW			ASHFIELD SHALE
							1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, light brown and grey, trace of ironstone bands.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH23 **1/1**

SDUP7: 0.02-0.3

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.6m

Date: 3/1/24 **Datum:** AHD

Plant Type: JK400 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION						N = 10 5,5,5	0		-	ASPHALTIC CONCRETE: 20mm.t	D			SCREEN: 3.15kg (<10L) 0.02-0.3m, NO FCF
										FILL: Silty gravelly sand, fine to medium grained, light brown, fine to medium grained igneous gravel.	D			SCREEN: 4.0kg (<10L) 0.3-1.0m, NO FCF
							1			FILL: Sand, fine to medium grained, yellow brown, trace of igneous gravel, metal and plastic fragments.				SCREEN: 11.30kg 1.0-1.4m, NO FCF
										END OF BOREHOLE AT 1.4m				TERMINATED DUE TO POSSIBLE SERVICE
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH24
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.7 m

Date: 30/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING						N = 9 3,4,5	65	1			FILL: Silty sand, fine to coarse grained, brown, with clay nodules, trace of fine grained ironstone, fine to medium grained sandstone gravel, slag, roots and root fibres.	M w~PL			GRASS COVER APPEARS WELL COMPACTED SCREEN: 13.15kg 0-0.1m, NO FCF
											FILL: Silty clay, medium plasticity, red brown, dark grey and light grey, trace of fine to medium grained ironstone, sandstone and siltstone gravel, ash and root fibres.				SCREEN: 5.5kg (<10L) 0.2-1.0m, NO FCF INSUFFICIENT RETURN FOR BULK SCREEN
						N > 25 8,13,12/ 100mm REFUSAL	64	2		CL-Cl	Gravelly silty CLAY: low to medium plasticity, light grey and red brown, fine to medium grained siltstone and ironstone gravel.	w<PL	Hd	>600 >600	RESIDUAL
							63	3							
							62	4							
							61	5		-	Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, grey, fine to medium grained siltstone and ironstone gravel.	XW	Hd		ASHFIELD SHALE VERY LOW 'TC' BIT RESISTANCE BANDED WITH SOIL RESISTANCE
							60	6			SILTSTONE: grey, with grey laminae and extremely weathered bands.	DW	VL - L		
							59								

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ENVIRONMENTAL LOG

Log No.
BH24
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.7 m

Date: 30/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
											SILTSTONE: grey, with grey laminae and extremely weathered bands.	DW	VL - L		
											REFER TO CORED BOREHOLE LOG				
							58	8							
							57	9							
							56	10							
							55	11							
							54	12							
							53	13							
							52								

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CORED ENVIRONMENTAL LOG

Log No. BH24 3 / 3

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.7 m

Date: 30/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 7.09m			VL -0.1, L -0.3, M -1, H -3, VH -10, EH	600, 200, 60, 20		
		58			Extremely Weathered siltstone: gravelly silty CLAY or silty clayey GRAVEL, fine to coarse grained siltstone gravel, dark grey, low plasticity, with fine to medium grained ironstone gravel.	XW	Hd				
			8		SILTSTONE: dark grey, with brown and grey laminae, bedded at 0-10°.	SW	VL - L	0.30		(8.03m) Be, 5°, P, R, Cn (8.09-8.11m) Be x 2, 3°, P, R, Fe Sn (8.13m) XWS, 3°, 11 mm.t (8.12-8.21m) Be x 5, 0 - 5°, P, R, Fe Sn (8.23-8.30m) Be x 6, 0 - 10°, P, R, Fe Sn	
							L - M	0.20		(8.39m) Cr, 5°, 10 mm.t	
		57								(8.51m) J, 40°, Ir, Vr, Cn (8.60m) J x 2, 85°, St, Vr, Cn (8.71m) J, 25°, P, R, Cn	
			9							(8.86m) XWS, 20°, Cr, 150 mm.t (8.92m) J x 2, 50 - 85°, P, R, Cn	
						FR	M	0.90			
		56								(9.51m) J, 70°, P, R, Cn (9.58m) J, 70°, P, R, Cn (9.70m) Be, 10°, P, R, Cn (9.78m) J, 25°, P, R, Cn (9.86m) J, 30°, P, R, Cn	
			10					1.0			
								0.90			
		55						0.80		(10.64m) Ji, 70°, P, R, Cn	
			11					0.60		(11.22m) J, 55°, P, R, Cn (11.40m) J, 50°, P, R, Cn (11.45m) J, 25°, P, R, Cn (11.48m) J, 20°, P, R, Cn	
		54						0.60			
			12					0.80		(11.98m) J x 2, 50°, P, R, Cn (12.02m) J, 50°, P, R, Cn (12.10m) J, 25°, P, R, Cn	Ashfield Shale
					END OF ENVIRONMENTAL HOLE AT 12.22 m						
		53									
			13								
		52									

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ENVIRONMENTAL LOG

Log No. **BH25** 1/1

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.5m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■				0			CONCRETE: 100mm.t				
	■		■						-	FILL: Silty clay, medium to high plasticity, brown, trace of igneous and ironstone gravel, sand and root fibres.	w>PL			SCREEN: 3.27kg (<10L) 0.1-0.3m, NO FCF
	■		■						CI-CH		w≈PL			RESIDUAL
						N > 26 5,16, 10/50mm REFUSAL				Silty CLAY: medium to high plasticity, yellow brown mottled orange brown.	XW			HAWKESBURY SANDSTONE
	■		■				1		-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, with distinctly weathered siltstone bands.				
										END OF BOREHOLE AT 1.3m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH26
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~65.4 m

Date: 30/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING							65				CONCRETE: 400mm.t				8mm DIA. REINFORCEMENT, 140mm TOP COVER
											CONCRETE: 280mm.t				NO REINFORCEMENT OBSERVED
	■		■					1		-	Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, light grey and orange brown, fine to medium grained siltstone and ironstone gravel.	XW	Hd		ASHFIELD SHALE AFFECTED BY WATER INTRODUCED DURING DIATUBE CORING VERY LOW 'TC' BIT RESISTANCE
	■		■				64								
								2							
							63								
											SILTSTONE: grey, with extremely weathered bands.	DW	VL - L		LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							62	3							
								4							
							61				REFER TO CORED BOREHOLE LOG				GROUNDWATER MONITORING WELL INSTALLED TO 14.2m CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.2m TO 14.2m. CASING 0.1m TO 2.2m. 2mm SAND FILTER PACK 1.5m TO 14.2m. BENTONITE SEAL 0.1m TO 1.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
								5							
							60								
								6							
							59								

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CORED ENVIRONMENTAL LOG

Log No. BH26 2 / 3

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.4 m

Date: 30/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 4.20m						
					NO CORE 0.15m						
		61	5		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°, with extremely weathered bands bedded at 0-10°.	MW	EL - VL			(4.30-5.42m) Be x multiple, 0 - 10°, P, R, Fe Sn (4.30-5.42m) XWS x multiple, 0 - 10°, 20-100mm.t	
		60			Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, dark grey, fine to medium grained siltstone gravel.	XW	Hd				
		59	6		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°.	SW	M	0.60		(6.08m) Be, 5°, P, R, Fe Sn (6.10m) J x 3, 15 - 20°, P, R, Fe Sn (6.12m) Be, 5°, P, R, Fe Sn (6.15m) Ji, 60°, P, R, Fe Sn (6.20m) J, 20°, P, R, Cn	
		58	7					0.80 0.80		(6.56m) J, 85°, St, R, Cn (6.67m) Be, 0°, P, Vr, Fe Sn (6.73m) XWS, 5°, 6 mm.t (6.75m) XWS, 5°, 5 mm.t (7.14m) J, 30°, P, R, Cn (7.17m) J, 75°, P, R, Cn (7.44m) J, 40°, P, R, Cn (7.49m) J, 45°, P, R, Cn	
		57	8			FR	M - H	0.90 1.8		(7.70m) Be, 8°, P, R, Cn (7.77m) J, 65°, P, R, Cn (7.83m) J, 25°, P, R, Cn (7.98m) J, 25°, P, R, Cn (8.02m) J, 30°, P, R, Cn (8.06m) Be, 5°, P, R, Cn	
		56	9					1.0 0.70 0.90		(8.49m) XWS, 10°, 6 mm.t (8.52m) J, 60°, P, R, Cn (8.56m) J, 65°, P, R, Cn (8.61m) J, 20°, C, R, Cn (8.73m) J, 30°, P, R, Cn (8.76m) J, 60°, P, R, Cn (8.81m) J, 25°, P, R, Cn (8.88m) J, 40°, P, R, Cn (9.03m) J, 25°, P, R, Cn (9.55m) J, 15°, P, R, Cn (9.67m) J, 20°, P, R, Cn (9.74m) J, 85°, C, R, Cn (9.80m) J, 20°, P, R, Cn (9.88m) J, 75°, P, R, Cn	
		55	10					1.0 1.3		(10.38m) J, 45°, P, R, Cn	

85% RETURN

ON 5/12/23

ON 12/12/23

Ashfield Shale

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CORED ENVIRONMENTAL LOG

Log No. BH26 3 / 3

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~65.4 m

Date: 30/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness)	Formation
85% RETURN		54	12		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	FR	M - H	0.80		(11.30m) Be, 10°, P, R, Cn (11.35m) XWS, 0°, 15 mm.t	
		53	13		SANDSTONE: fine to medium grained, grey, bedded at 0-10°, with dark grey siltstone laminae, bedded at 0-10°, and siltstone bands.		M	0.50 0.90 0.90 0.40		(12.30m) Be, 15°, Un, R, Cn (12.48m) Be, 10°, P, R, Cn (12.60m) J, 70°, St, R, Cn	Hawkesbury Sandstone
		52	14		SANDSTONE: fine to medium grained, light grey, with dark grey laminae, bedded at 0-10°.		M - H	0.80 1.4		(13.30m) Be x 2, 5°, P, R, Cn (13.39m) Be, 5°, P, R, Cn (13.40m) Be, 5°, P, R, Cn (13.44m) Be, 10°, Ir, R, Cn (13.48m) Be, 5°, P, R, Cn (13.52m) Be, 5°, P, R, Cn (13.58m) J, 80°, P, R, Cn (13.61m) XWS, 0°, 15 mm.t (13.70m) XWS, 0°, 10 mm.t (13.77m) Be, 10°, P, R, Cn (13.80m) Be, 10°, P, R, Cn (13.99m) XWS, 0°, 10 mm.t	
		51	15		END OF ENVIRONMENTAL HOLE AT 14.20 m						
		50	16								
		49	17								
		48									

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ENVIRONMENTAL LOG

Log No.
BH27
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~63.0 m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING											CONCRETE: 140mm.t				8mm DIA. REINFORCEMENT, 50mm TOP COVER
										-	FILL: Gravelly silty sand, fine to coarse grained, brown, fine to medium grained igneous gravel, trace of plastic fragments.	M			APPEARS WELL COMPACTED
						N = 14 4,5,9					FILL: Silty clay, medium plasticity, red brown and orange brown, trace of fine to medium grained sand, fine grained igneous and ironstone gravel, and root fibres.	w~PL		>600 >600 >600	SCREEN: 2.1kg (<10L) 0.14-0.5m, NO FCF
							62	1							SCREEN: 3.1kg (<10L) 0.5-1.0m, NO FCF
															INSUFFICIENT RETURN FOR BULK SCREEN
						N > 31 10,16,15/ 100mm REFUSAL				-	Extremely Weathered siltstone: silty CLAY, medium plasticity, light grey mottled red brown, with fine to medium grained siltstone and ironstone gravel, and root fibres.	XW	Hd	>600 >600 >600	ASHFIELD SHALE VERY LOW 'TC' BIT RESISTANCE
							61	2							
						N > 14 12,14/ 100mm REFUSAL	60	3							
							59	4			SILTSTONE: dark grey, with iron indurated bands and extremely weathered bands.	DW	EL - VL		LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							58	5					VL - L		
							57	6			SILTSTONE: dark grey, with grey laminae.		L - M		LOW TO MODERATE RESISTANCE BANDED WITH VERY LOW RESISTANCE

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REFER TO CORED BOREHOLE LOG

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CORED ENVIRONMENTAL LOG

Log No. BH27 2 / 3

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Client: TTW

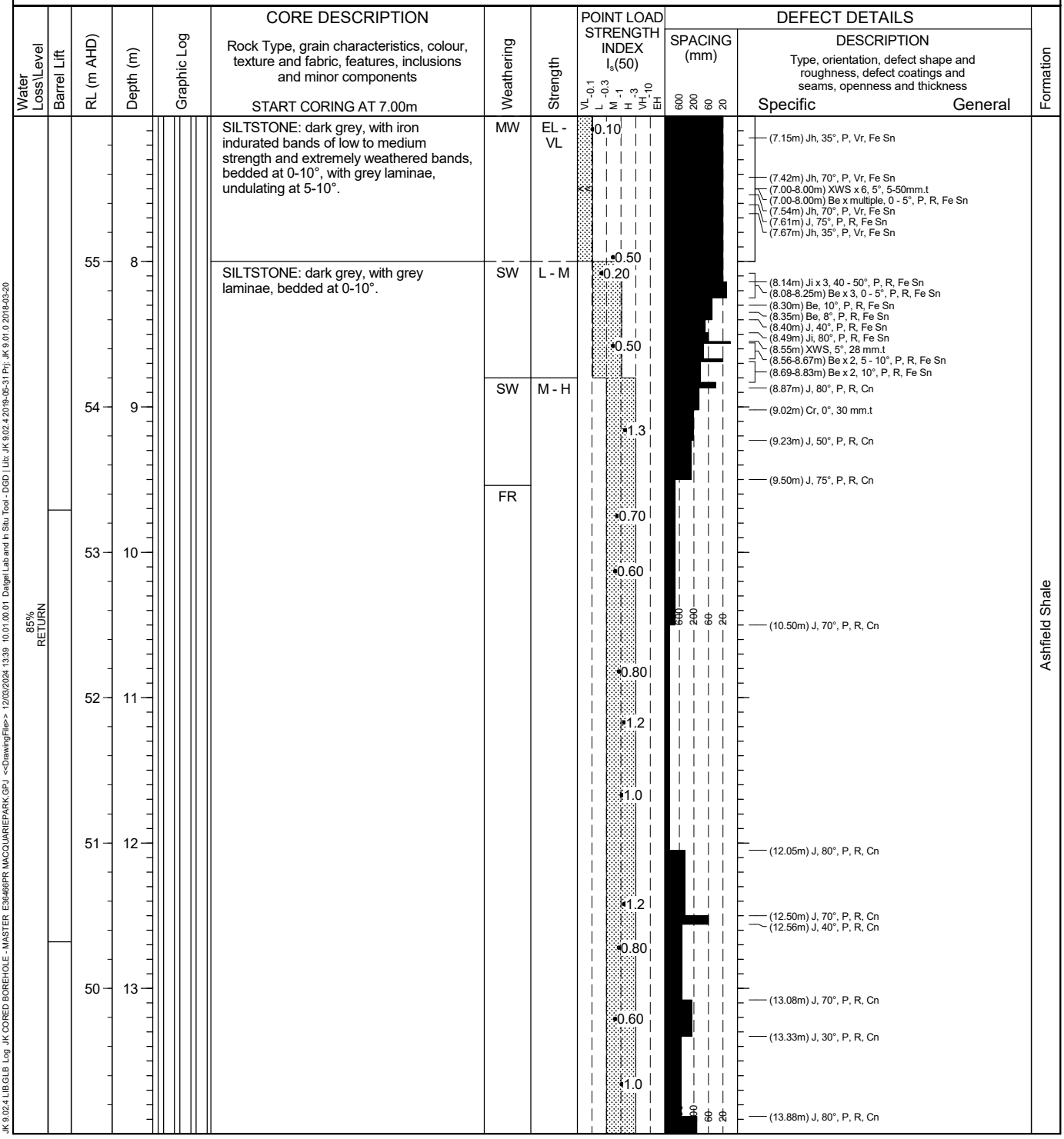
Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 4/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **Bearing:** N/A **Logged/Checked By:** C.S.Y./O.F.



JK 9.02.4 LIB:GLB Log JK CORED BOREHOLE - MASTER E36466PR MACQUARIEPARK.GPJ <<DrawingFile>> 12/03/2024 13:39 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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CORED ENVIRONMENTAL LOG

Log No. BH27 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 4/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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)	DEFECT DETAILS: 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
85% RETURN					SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	FR	M - H			(14.05m) Cr, 5°, 110 mm.t (14.22m) J, 50°, P, R, Cn (14.37m) J, 80°, Un, R, Cn	
					LAMINITE: Siltstone, dark grey, with Sandstone, fine grained, light grey, with fine to medium grained sandstone bands, and siltstone lenses, bedded at 0-10°.			0.30			
		48	15					1.4		(14.83m) J, 40°, P, Vr, Cn	
								0.80		(15.38m) XWS, 5°, 10 mm.t (15.44m) Be, 0°, P, R, Cn (15.51m) Be, 5°, Un, R, Cn (15.54m) Be, 5°, P, R, Cn	
							H	1.4			
		47	16					2.8		(15.86m) Be, 0°, P, R, Cn (15.91m) Be, 0°, P, R, Cn (15.92m) Be, 5°, P, R, Cn	
								2.6			
								2.7			
		46	17					1.0		(17.26m) J, 70°, P, Vr, Cn (17.38m) XWS, 0°, 16 mm.t	
								1.1			
								1.5		(17.68m) J, 60°, P, R, Cn	
		45	18		END OF ENVIRONMENTAL HOLE AT 17.84 m						
		44	19								
		43	20								

Hawkesbury Sandstone

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ENVIRONMENTAL LOG

Log No. **BH28** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 63.7m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0			FILL: Clayey sand, fine to medium grained, brown, trace of clay nodules.	M w<PL			GRASS COVER
						N = 12 5,5,7	1			FILL: Silty clay, low to medium plasticity, brown, trace of igneous and sandstone gravel, sand, glass fragments and ash.				SCREEN: 10.40kg 0-0.1m, NO FCF SCREEN: 2.55kg (<10L) 0.1-1.1m, NO FCF SCREEN: 6.18kg (<10L) 1.1-2.1m, NO FCF
						N = 18 6,9,9	2							SCREEN: 6.18kg (<10L) 2.1-3.0m, NO FCF
						N = 16 8,8,8	3		CI-CH	Silty CLAY: medium to high plasticity, yellow brown mottled orange brown.	w≈PL			SCREEN: 3.20kg (<10L) 3.0-3.2m, NO FCF RESIDUAL
							4			END OF BOREHOLE AT 4.0m				
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH29
1 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING											FILL: Silty clayey sand, fine to medium grained, grey brown, trace of clay nodules.	D w<PL			GRASS COVER SCREEN: 8.7kg (<10L) 0-0.1m, NO FCF
						N = 11 4,5,6	62	1			FILL: Silty clay, low plasticity, brown, grey and red brown, trace of fine grained siltstone and ironstone gravel, fine to medium grained sand, construction rubble, ash and root fibres.			500 >600	APPEARS WELL COMPACTED SCREEN: 4.0kg (<10L) 0.1-1.0m, NO FCF SCREEN: 3.7kg (<10L) 1.0-2.0m, NO FCF
						N = 18 3,8,10	61	2						>600 550	
						N = 12 2,6,6	60	3							SCREEN: 4.15kg (<10L) 2.0-3.0m, NO FCF INSUFFICIENT RETURN FOR BULK SCREEN
							59	4		-	Extremely Weathered siltstone: silty CLAY, low to medium plasticity, light grey and red brown, with ironstone bands, trace of fine grained siltstone.	XW	Hd		LOW 'TC' BIT RESISTANCE BANDED WITH SOIL RESISTANCE ASHFIELD SHALE
							58	5							
							57	6			SILTSTONE: dark grey, with grey laminae, extremely weathered bands and iron indurated bands.	DW	VL - L		LOW TO MODERATE RESISTANCE BANDED WITH SOIL RESISTANCE

ON 6/12/23

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ENVIRONMENTAL LOG

Log No.
BH29
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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
										-	SILTSTONE: dark grey, with grey laminae, extremely weathered bands and iron indurated bands. *(continued)*	DW	VL - L		
													L		LOW TO MODERATE RESISTANCE
							55	8							
							54	9					L - M		MODERATE RESISTANCE
											REFER TO CORED BOREHOLE LOG				GROUNDWATER MONITORING WELL INSTALLED TO 19.0m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 5.5m TO 19.0m. CASING 0.1m TO 5.5m. 2mm SAND FILTER PACK 4.0m TO 19.0m. BENTONITE SEAL 0.1m TO 4.0m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							53	10							
							52	11							
							51	12							
							50	13							

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CORED ENVIRONMENTAL LOG

Log No. **BH29** **3 / 4**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK330 **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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 9.75m						
		53	10		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°.	FR	M - H	1.1		(9.80m) CS, 5°, 60 mm.t (9.92m) XWS, 3°, 20 mm.t	Ashfield Shale
										(10.10m) Be, 0°, C, R, Cn (10.17m) XWS, 0°, 30 mm.t (10.26m) Be, 0°, P, R, Fe Sn	
										(10.48m) XWS, 3°, 140 mm.t	
										(10.68m) Be, 5°, P, R, XW FILLED, 1 mm.t	
										(10.85m) Be, 3°, P, R, XW FILLED, 2 mm.t	
		52	11					1.6 2.4			
										(11.12m) XWS, 5°, 3 mm.t (11.14-11.30m) XWS x 5, 5°, 5-20mm.t	
								0.50			
										(11.35-11.82m) XWS x 4, 5°, 14-40mm.t	
								0.60			
										(11.91m) XWS, 0°, 45 mm.t	
		51	12							(12.09m) J, 75°, P, R, Cn	
								1.0		(12.38m) XWS, 3°, 60 mm.t	
	90% RETURN									(12.68-12.79m) J x 2, 30 - 35°, P, R, Cn	
		50	13					0.90		(12.98-13.03m) XWS, 0 - 5°, 15-30mm.t	
ON 12/12/23								1.1			
										(13.50m) Be, 0°, P, R, Cn (13.58m) XWS, 3°, 13 mm.t	
										(13.71m) J, 20°, Ir, Vr, Cn	
										(13.80m) J, 40°, P, R, Cn (13.80m) J, 20°, P, R, Cn	
		49	14					0.90			
								1.1			
										(14.42m) Be, 3°, P, R, Cn	
								0.70			
										(14.75m) J, 40°, P, R, Cn (14.83m) J, 25°, P, Vr, Cn (14.92m) XWS, 0°, 125 mm.t	
		48	15								
								0.70			
										(15.46m) XWS, 0°, 7 mm.t	
										(15.67m) XWS, 0°, 60 mm.t	
								0.80		(15.86m) J, 85°, P, R, Cn	

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CORED ENVIRONMENTAL LOG

Log No. BH29 4 / 4

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~63.0 m

Date: 5/12/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK330 **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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
90% RETURN		46	17		SILTSTONE: dark grey, with grey laminae, bedded at 0-10°. *(continued)*	FR	M - H	1.0, 0.80, 1.1		(16.05m) Be, 0°, P, R, Cn	Ashfield Shale
		45	18		LAMINITE: Sandstone, fine to medium grained, light grey, interbedded with Siltstone, dark grey, bedded at 0-10°.		H	1.6, 2.0			Hawkesbury Sandstone
		44	19				H - VH	3.6, 3.6			
					END OF ENVIRONMENTAL HOLE AT 19.24 m						
		43	20								
		42	21								
		41	22								

POINT LOAD STRENGTH INDEX $I_s(50)$: VL -0.1, L -0.3, M -1, H -3, VH -10, EH

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

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ENVIRONMENTAL LOG

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Log No. **BH30** **1/1**

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 59.0m

Date: 5/12/23 **Datum:** AHD

Plant Type: - **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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 sand, fine to medium grained, light brown, fine to medium grained, sub-angular ironstone gravel, trace of clay nodules, roots and root fibres.	D			SCREEN: 11.7kg 0-0.1m, NO FCF
										END OF BOREHOLE AT 0.1m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH31** **1/1**

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Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.3m

Date: 4/12/23 **Datum:** AHD

Plant Type: JK330 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 3.75kg (<10L)
									-	FILL: Gravelly sand, fine to medium grained, dark grey, fine to medium grained, sub-angular igneous gravel.	XW			0.03-0.1m, NO FCF
							1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, yellow brown and orange brown, with distinctly weathered siltstone bands, trace of ironstone bands.				ASHFIELD SHALE
										END OF BOREHOLE AT 1.2m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH32** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.8m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 4.0kg (<10L)
									-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel.	XW			0.03-0.3m, NO FCF
										Extremely Weathered siltstone: silty gravelly CLAY, low to medium plasticity, grey and orange brown, trace of ironstone bands.				ASHFIELD SHALE
							1			as above, but grey.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No.
BH33
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Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ~66.0 m

Date: 28/11/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked By:** C.S.Y./O.F.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES SAL	SAMPLES DB	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 OF AUGERING										-	ASPHALTIC CONCRETE: 18mm.t	D			SCREEN: 0.935kg (<10L) 0.04-0.2m, NO FCF
										-	FILL: Gravelly silty sand, fine to medium grained, grey, fine to medium grained igneous gravel, and slag.	XW	Hd		ASHFIELD SHALE
											Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, red brown and light grey, fine to medium grained siltstone and ironstone gravel.				VERY LOW 'V' BIT RESISTANCE
							65	1			as above, but grey.				
							64	2			Extremely Weathered siltstone: gravelly silty CLAY, low plasticity, grey, with ironstone bands and very low to low strength siltstone bands.				LOW RESISTANCE
							63	3			SILTSTONE: grey, with extremely weathered bands and ironstone bands.	DW	VL - L		LOW RESISTANCE BANDED WITH SOIL RESISTANCE
							62	4							
							61	5			REFER TO CORED BOREHOLE LOG				
							60	6							

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CORED ENVIRONMENTAL LOG

Log No. **BH33** **2 / 3**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~66.0 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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 $I_s(50)$	DEFECT DETAILS: SPACING (mm)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 4.37m						
85% RETURN		61	5		SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°, with clay seams and extremely weathered and iron indurated bands.	SW	L L - M	0.20 0.40 0.40		(4.40m) XWS, 3°, 30 mm.t (4.43m) CS, 3°, 25 mm.t (4.47m) XWS, 4°, 25 mm.t (4.51m) Be, 3°, P, Vr, XW FILLED, 2 mm.t (4.55m) Be, 5°, P, R, Cn (4.64m) Be x 2, 5°, P, Vr, Fe Sn (4.66m) CS, 5°, 30 mm.t (4.71m) CS, 5°, 10 mm.t (4.79-4.95m) Be x 3, 5°, P, Vr, Fe Sn (5.04-5.14m) Be x 2, 5°, P, Vr, Fe Sn (5.28-5.32m) Be x 2, 3°, P, R, Fe Sn (5.42m) Be, 3°, P, R, Fe Sn	Ashfield Shale
		60	6		SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°.		M - H	1.5 0.70		(5.62-5.90m) Be x 3, 5°, P, R, Fe Sn (5.94-6.10m) Be x 2, 3°, P, R, Fe Sn	
						FR		1.2		(6.36m) XWS, 3°, 1 mm.t (6.42m) J, 75°, St, R, Fe Sn (6.52m) Be, 3°, P, R, Fe Sn (6.53m) XWS, 0°, 8 mm.t (6.63-6.65m) Be x 2, 5°, P, R, Cn	
		59	7					0.80 1.2	60 20	(7.07m) J, 85°, St, R, Cn (7.14-7.28m) Be x 2, 5°, P, R, Fe Sn (7.37m) J, 60°, P, R, Fe Sn (7.52m) Be, 5°, P, R, XW FILLED, 3 mm.t (7.56-7.60m) Be x 2, 5°, C, R, Cn	
		58	8					0.90		(7.80m) XWS, 5°, 10 mm.t (8.17m) J, 20°, P, R, Cn (8.32m) Be, 15°, P, R, Siltstone gravel FILLED, 2 mm.t	
								1.1			
		57	9					1.2		(9.04m) Ji, 35°, St, R, Cn (9.14m) Be, 0°, P, R, Clay Vn	
								1.1 0.70 1.1			
		56	10							(9.95m) J, 70°, P, R, Cn	
								1.9		(10.15m) J, 25°, P, R, Cn (10.20m) J x 2, 40 - 45°, C, R, Cn (10.30m) Ji, 30°, P, Vr, Cn (10.32m) J, 25°, P, R, Cn	
								0.90 0.80	200 60 20	(10.47m) J, 20°, P, R, Cn (10.52m) J, 30°, C, R, Cn (10.90m) Be, 5°, P, R, XW gravel FILLED, 1 mm.t	

JK 9.02.4 LIB:GLB Log JK CORED BOREHOLE - MASTER E36466PR MACQUARIEPARK.GPJ <<DrawingFile>> 12/03/2024 13:39 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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FRACTURES NOT MARKED ARE CONSIDERED TO BE DRILLING AND HANDLING BREAKS

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CORED ENVIRONMENTAL LOG

Log No. BH33 3 / 3

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Core Size:** NMLC **R.L. Surface:** ~66.0 m

Date: 28/11/23 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK500 **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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
85% RETURN					SILTSTONE: dark grey, with light grey laminae, bedded at 0-10°. *(continued)*	FR	M - H	0.50		(11.10m) J, 80°, P, R, Cn (11.14m) Be, 5°, C, R, Cn (11.31m) Be, 5°, C, R, Cn (11.53m) Be, 7°, P, Vr, Cn (11.60m) J, 85°, P, Vr, Cn	
		54	12		LAMINITE: Sandstone, fine to medium grained, light grey, with Siltstone, dark grey, bedded at 0-10° and undulating at 10°.			0.40 1.3		(11.80m) Be, 5°, Un, R, Cn (11.82m) XWS, 7°, 20 mm.t	Ashfield Shale
		53	13					0.40 0.40 0.60		(12.52m) Be, 3°, P, R, Cn (12.66-12.98m) Be x 4, 3°, P, R, Cn (13.03-13.24m) Be x 4, 3 - 5°, P, R, Cn (13.30m) XWS, 5°, 7 mm.t (13.43m) J, 25°, P, R, Cn (13.52m) Be, 3°, P, R, Cn	
		52	14		END OF ENVIRONMENTAL HOLE AT 13.55 m						
		51	15								
		50	16								
		49	17								

JK 9.02.4 LIB:GLB Log JK CORED BOREHOLE - MASTER E36466PR MACQUARIEPARK.GPJ <<DrawingFile>> 12/03/2024 13:39 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

Log No. **BH34** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.9m

Date: 5/12/23 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** H.W./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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		-	ASPHALTIC CONCRETE: 30mm.t	M			SCREEN: 3.95kg (<10L) 0.03-0.2m, NO FCF
									CI-CH	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel.	w<PL			RESIDUAL
						N > 24 6,14, 10/50mm REFUSAL			-	Silty CLAY: medium to high plasticity, grey, trace of ironstone gravel.	XW			ASHFIELD SHALE
							1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey.				
										END OF BOREHOLE AT 1.5m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH35** **1/1**

Environmental logs are not to be used for geotechnical purposes

Client: TTW

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 63.0m

Date: 5/1/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** L.R./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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, dark brown, trace of fine to coarse grained sandstone gravel, and plastic fragments.	w<PL			GRASS COVER SCREEN: 10.3kg 0-0.15m, NO FCF
										END OF BOREHOLE AT 0.15m				
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH101** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PENDULUM AUGER **R.L. Surface:** ≈ 63.2m

Date: 10/10/24 **Datum:** AHD

Plant Type: JKX **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0			FILL: Clayey sand, fine to medium grained, brown, trace of clay nodules.	D			GRASS COVER
										FILL: Silty clay, low to medium plasticity, brown, trace of sand, slag and glass fragments.	w<PL			SCREEN: 10.10kg 0-0.1m, NO FCF
														SCREEN: 6.21kg (<10L) 0.1-1.0m, NO FCF
							1							SCREEN: 10.80kg 1.0-2.0m, NO FCF
							2							
										FILL: Silty clay, low to medium plasticity, brown, trace of sandstone, igneous and siltstone gravel, tile fragments, roots and root fibres.				SCREEN: 8.35kg (<10L) 2.5-3.0m, NO FCF
							3							
									CI-CH	Silty CLAY: medium to high plasticity, brown.	w<PL			RESIDUAL
										END OF BOREHOLE AT 3.8m				
							4							
							5							
							6							
							7							

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Log No. **BH102** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PENDULUM AUGER **R.L. Surface:** ≈ 63.7m

Date: 10/10/24 **Datum:** AHD

Plant Type: JKX **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0			FILL: Silty clay, medium to high plasticity, brown, trace of siltstone gravel, tile fragments and root fibres.	w<PL			GRASS COVER SCREEN: 10.10kg 0-0.1m, NO FCF
							1							SCREEN: 5.32kg (<10L) 0.1-1.0m, NO FCF
														SCREEN: 8.35kg (<10L) 1.0-2.0m, NO FCF
							2							
										FILL: SIlty clay, low to medium plasticity, brown, trace of brick and glass fragments, roots and root fibres.	w≈PL			SCREEN: 7.35kg (<10L) 2.5-3.0m, NO FCF
							3		CL-CI	Silty CLAY: medium to high plasticity, light brown.	w≈PL			RESIDUAL
										END OF BOREHOLE AT 3.6m				
							4							
							5							
							6							
							7							

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Log No. BH103 1/1

SDUP103: 0-0.1m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PENDULUM AUGER **R.L. Surface:** ≈ 64.0m

Date: 10/10/24 **Datum:** AHD

Plant Type: JKX **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION							0			FILL: Silty clay, medium to high plasticity, brown, trace of root fibres.	w<PL			GRASS COVER
										FILL: SIlty clay, medium to high plasticity, brown, trace of siltstone and sandstone gravel, tile fragments and root fibres.				SCREEN: 10.88kg 0-0.1m, NO FCF
							1							SCREEN: 8.65kg (<10L) 0.1-1.0m, NO FCF
														SCREEN: 11.65kg 1.0-2.0m, NO FCF
							2							SCREEN: 7.23kg (<10L) 2.0-3.0m, NO FCF
							3		CI-CH	Silty CLAY: medium to high plasticity, light brown and red grey, trace of siltstone bands.	w<PL			RESIDUAL
										END OF BOREHOLE AT 3.5m				
							4							
							5							
							6							
							7							

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Log No. **BH104** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 65.5m

Date: 10/10/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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 ironstone gravel and root fibres.	D			LEAF LITTER COVER
											w<PL			SCREEN: 10.15kg 0-0.1m, NO FCF
										FILL: SIlty clay, low to medium plasticity, orange brown, trace of siltstone gravel and root fibres.				INSUFFICIENT RETURN FOR BULK SCREEN
										END OF BOREHOLE AT 0.2m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH105** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 66.0m

Date: 10/10/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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.	D			GRASS COVER
										FILL: Silty clay, medium to high plasticity, grey mottled red and orange, trace of siltstone and sandstone gravel.	w<PL			SCREEN: 10.05kg 0-0.05m, NO FCF
										END OF BOREHOLE AT 0.15m				INSUFFICIENT RETURN FOR BULK SCREEN
							1							HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH106** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** ≈ 66.2m

Date: 10/10/24 **Datum:** AHD

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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 siltstone, ironstone and sandstone gravel and root fibres.	w<PL			LEAF LITTER COVER SCREEN: 10.07kg 0-0.1m, NO FCF
										END OF BOREHOLE AT 0.2m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH107 1/1

SDUP104: 0.12-0.3m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 120mm.t				
									-	FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained, sub-angular igneous gravel, trace of quartz gravel.	D			SCREEN: 4.35kg (<10L) 0.12-0.3m, NO FCF
									CL-CI	Silty CLAY: low to medium plasticity, brown.	w<PL			RESIDUAL
							1			END OF BOREHOLE AT 0.35m				HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH108 1/1

SDUP105: 0.1-0.2m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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		-	ASPHALTIC CONCRETE: 30mm.t	D			SCREEN: 5.58kg 0.03-0.2m, NO FCF
	■		■							FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel, trace of metal fragments.				INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: SIlty sand, fine to medium grained, orange brown, with sandstone gravel, trace of clay nodules.				HAND AUGER REFUSAL
							1			END OF BOREHOLE AT 0.3m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH109** 1/1

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Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 150mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.42kg (<10L) 0.15-0.3m, NO FCF
									CI-CH	Silty CLAY: medium to high plasticity, red brown.	w<PL			RESIDUAL
	■		■							END OF BOREHOLE AT 0.8m				
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. BH110 1/1

SDUP106: 0.15-0.3m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 11/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 150mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.68kg 0.15-0.3m, NO FCF
										END OF BOREHOLE AT 0.3m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH111** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 230mm.t				
	■		■		■				-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.70kg (<10L) 0.23-0.3m, NO FCF
									CL-CI	Silty CLAY: low to medium plasticity, grey and red brown, trace of ironstone bands.	w≈PL			HAND AUGER REFUSAL
							1			END OF BOREHOLE AT 0.4m				
							2							
							3							
							4							
							5							
							6							
							7							

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ENVIRONMENTAL LOG

Log No. **BH112** 1/1

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Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 8/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** L.R./

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 170mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel, trace of igneous and ironstone gravel, roots and root fibres.	D			INSUFFICIENT RETURN FOR BULK SCREEN
									CI-CH	Silty CLAY: medium to high plasticity, grey mottled red, with ironstone bands.	w<PL			RESIDUAL
							1			END OF BOREHOLE AT 0.6m				
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH113** **1/1**

SDUP102: 0.2-0.4m

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 200mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			INSUFFICIENT RETURN FOR BULK SCREEN
										END OF BOREHOLE AT 0.4m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH114** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 10/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 230mm.t				
	■		■						-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	D			SCREEN: 3.45kg (<10L) 0.23-0.3m, NO FCF
	■										W≈PL			
										FILL: Silty clay, medium to high plasticity, grey mottled orange, trace of siltstone gravel.				INSUFFICIENT RETURN FOR BULK SAMPLE
							1			END OF BOREHOLE AT 0.5m				HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH115** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■				0			CONCRETE: 170mm.t				
									-	FILL: SIlty sand, fine to medium	D			INSUFFICIENT
									CI-CH	grained, light brown, with sandstone gravel.	w<PL			RETURN FOR BULK SCREEN
										Silty CLAY: medium to high plasticity, grey mottled red.				RESIDUAL
							1			END OF BOREHOLE AT 0.5m				HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH116** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 220mm.t				
									-	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel, trace of tile fragments, roots and root fibres.	D			SCREEN: 3.45kg (<10L) 0.2-0.4m, NO FCF
										END OF BOREHOLE AT 0.4m				HAND AUGER REFUSAL
							1							
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH117** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** HAND AUGER **R.L. Surface:** N/A

Date: 9/10/24 **Datum:** -

Plant Type: - **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES 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			CONCRETE: 230mm.t				
	■								-	FILL: Silty sand, fine to medium grained, light brown, trace of igneous gravel and slag.	MD w≈PL			SCREEN: 1.85kg (<10L) 0.23-0.3m, NO FCF
										FILL: Silty clay, low to medium plasticity, grey, trace of siltstone gravel and sand.				INSUFFICIENT RETURN FOR BULK SCREEN
							1			END OF BOREHOLE AT 0.5m				HAND AUGER REFUSAL
							2							
							3							
							4							
							5							
							6							
							7							

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Log No. **BH118** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 58.3m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■	■					0		-	ASPHALTIC CONCRETE: 20mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■								FILL: Silty clay, low to medium plasticity, brown and orange brown, trace of igneous and ironstone gravel, sand and root fibres.				
							1							
	■	■								FILL: Silty clay, low to medium plasticity, grey, trace of igneous gravel and root fibres.	w≈PL			ORGANIC ODOUR
	■	■							CL-CI					INSUFFICIENT RETURN FOR BULK SCREEN
							2			Silty CLAY: low to medium plasticity, light brown and red brown, trace of ironstone bands.				TARGET DEPTH REACHED
										END OF BOREHOLE AT 2.0m				
							3							
							4							
							5							
							6							
							7							

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Log No. **BH119** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 58.1m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■	■					0		-	ASPHALTIC CONCRETE: 20mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■					1			FILL: Silty clay, medium to high plasticity, brown and orange brown, trace of igneous and siltstone gravel, ash and root fibres.				
	■	■								FILL: Silty clay, medium plasticity, grey, trace of igneous gravel and root fibres.				ORGANIC ODOUR
	■						2			FILL: Silty clay, low to medium plasticity, grey brown, trace of igneous gravel and root fibres.				INSUFFICIENT RETURN FOR BULK SCREEN
										END OF BOREHOLE AT 2.0m				INSUFFICIENT RETURN FOR BULK SCREEN
							3							TARGET DEPTH REACHED
							4							
							5							
							6							
							7							

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Log No. **BH120** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 57.9m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■				0		-	ASPHALTIC CONCRETE: 20mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	M			INSUFFICIENT RETURN FOR BULK SCREEN
	■		■							FILL: Sand, fine to medium grained, orange brown, trace of shell fragments.	w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
							1			FILL: Silty clay, low to medium plasticity, grey and orange brown, trace of ironstone and igneous gravel, sand and ash.				
	■		■							FILL: Sand, fine to medium grained, orange brown.	M			INSUFFICIENT RETURN FOR BULK SCREEN
										FILL: Silty clay, low to medium plasticity, dark brown and orange brown, trace of ironstone and igneous gravel.	w≈PL			INSUFFICIENT RETURN FOR BULK SCREEN
							2			END OF BOREHOLE AT 2.0m				TARGET DEPTH REACHED
							3							
							4							
							5							
							6							
							7							

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Log No. BH121 1/1

SDUP101: 0.01-0.15

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.7m

Date: 8/10/24 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION OF AUGERING	■	■	■		■		0		-	ASPHALTIC CONCRETE: 10mm.t	D			SCREEN: 4.13kg (<10L) 0.03-0.3m, NO FCF
									-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	XW			ASHFIELD SHALE
	■	■				N = 27 8,13,14	1			Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey and orange brown.				
										SILTSTONE: grey.	DW			HIGH RESISTANCE
							2			COMMENCE CORING AT 1.8m DEPTH				'TC' BIT REFUSAL
							3							
							4							
							5							GROUNDWATER MONITORING WELL INSTALLED TO 7.0m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 4.0m TO 7.0m. CASING 0m TO 4.0m. 2mm SAND FILTER PACK 2.5m TO 7.0m. BENTONITE SEAL 0.2m TO 2.5m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							6							
							7			END OF BOREHOLE AT 7.0m				

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ENVIRONMENTAL LOG

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Log No. **BH122** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.8m

Date: 8/10/24 **Datum:** AHD

Plant Type: JK500 **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■		■		■		0		-	ASPHALTIC CONCRETE: 10mm.t	D			SCREEN: 1.78kg (<10L) 0.01-0.3m, NO FCF
									-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained igneous gravel.	XW			ASHFIELD SHALE
	■		■			N = 16 6,10, 6/100mm REFUSAL				Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey and orange brown, trace of ironstone gravel.				
	■						1			SILTSTONE: grey.	DW			
							2							
							3							
							4							GROUNDWATER MONITORING WELL INSTALLED TO 6.2m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 3.2m TO 6.2m. CASING 0m TO 3.2m. 2mm SAND FILTER PACK 2.1m TO 6.2m. BENTONITE SEAL 0.2m TO 2.0m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
							5							
							6							
							7			END OF BOREHOLE AT 6.2m				

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Log No. **BH123** **1/1**

Client: TTW (NSW) PTY LIMITED

Project: PROPOSED S5 DATA CENTRE

Location: 269 LANE COVE ROAD, MACQUARIE PARK, NSW

Job No.: E36466PR **Method:** PUSH TUBE **R.L. Surface:** ≈ 65.9m

Date: 9/10/24 **Datum:** AHD

Plant Type: EZIPROBE **Logged/Checked by:** J.T.L./T.H.

Groundwater Record	SAMPLES ES	SAMPLES ASS	SAMPLES ASB	SAMPLES PFAS	SAMPLES DB	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLE-TION	■						0		-	ASPHALTIC CONCRETE: 10mm.t	D			INSUFFICIENT RETURN FOR BULK SCREEN
	■	■							-	FILL: Gravelly sand, fine to medium grained, grey, fine to medium grained, igneous gravel.	XW			ASHFIELD SHALE
										Extremely Weathered siltstone: silty CLAY, low to medium plasticity, grey and orange brown.				REFUSAL
							1			END OF BOREHOLE AT 0.7m				
							2							
							3							
							4							
							5							
							6							
							7							

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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:

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

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:

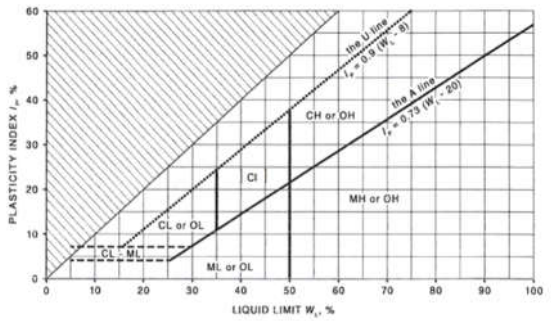
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

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.
		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 PID = 100	Vane shear reading in kPa of undrained shear strength. Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL $w \approx$ PL w < PL $w \approx$ LL w > LL	Moisture content estimated to be greater than plastic limit. Moisture content estimated to be approximately equal to plastic limit. Moisture content estimated to be less than plastic limit. Moisture content estimated to be near liquid limit. Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	D M W	DRY – runs freely through fingers. MOIST – does not run freely but no free water visible on soil surface. WET – free water visible on soil surface.
Strength (Consistency) Cohesive Soils	VS S F St VSt Hd Fr ( )	VERY SOFT – unconfined compressive strength ≤ 25kPa. SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa. FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa. STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa. VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa. HARD – unconfined compressive strength > 400kPa. FRIABLE – strength not attainable, soil crumbles. Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.
Density Index/ Relative Density (Cohesionless Soils)	VL L MD D VD ( )	**Density Index (I_D) Range (%)** / **SPT 'N' Value Range (Blows/300mm)** VERY LOOSE ≤ 15 / 0 – 4 LOOSE > 15 and ≤ 35 / 4 – 10 MEDIUM DENSE > 35 and ≤ 65 / 10 – 30 DENSE > 65 and ≤ 85 / 30 – 50 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.

Appendix E: Waste and Imported Materials Tracking Spreadsheet Examples

Imported Materials Register

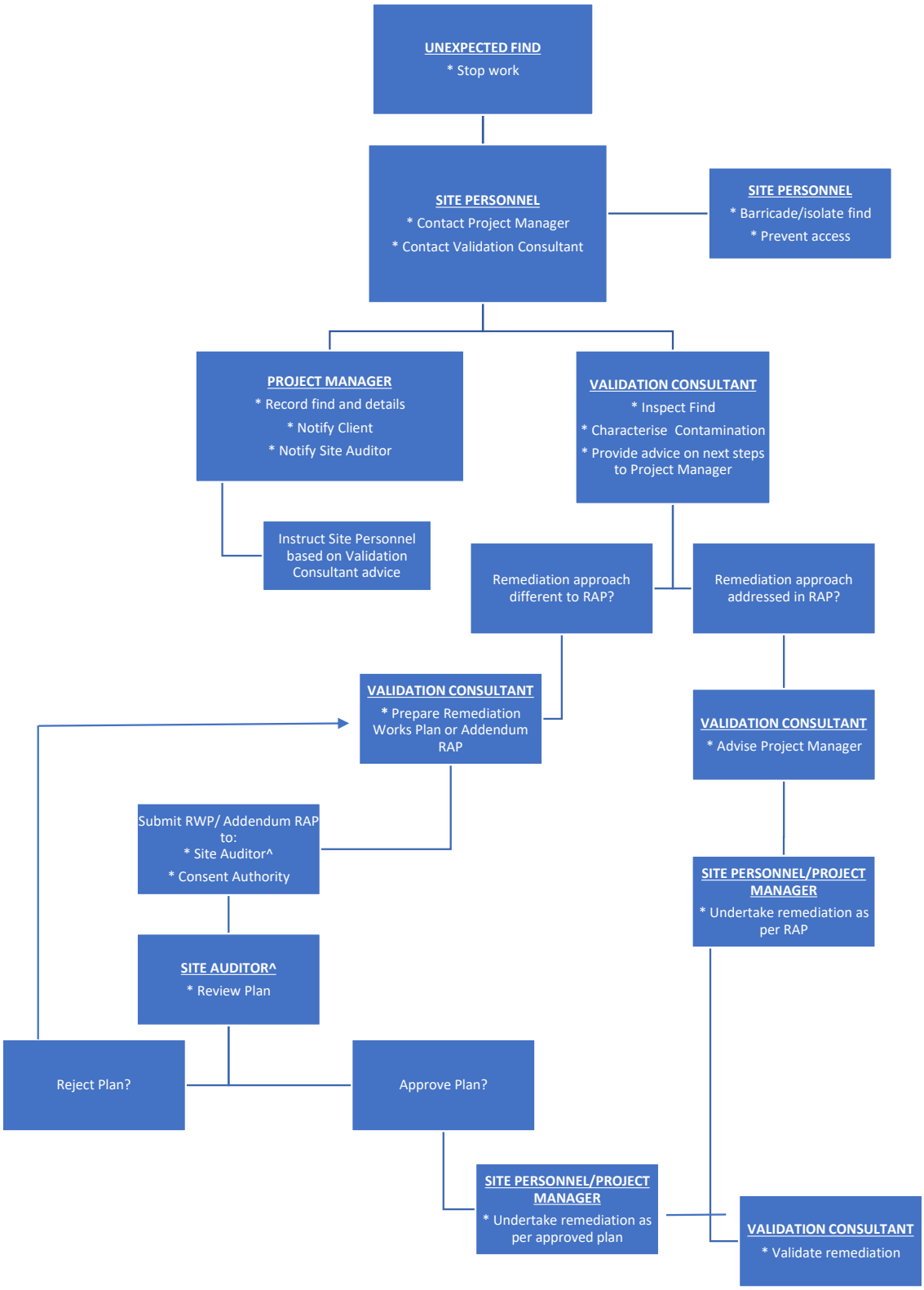
Supplier	Date	Docket/Invoice #	Product Type	Quantity (specify m3 or tonnes)	Area where Material was Placed

Exported (Waste) Materials Register

Load	Date	Material Type / Classification	Site Area where Waste was Generated	Waste Classification Report Reference	Disposal Facility	Tipping Receipt/Docket Number	Tracking Number (where relevant)	Tonnage

Appendix F: Unexpected Finds Protocol

UNEXPECTED FINDS PROTOCOL FLOW-CHART



^ It is noted that a Site Auditor may not be required. Reference is to be made to the conditions of consent to confirm whether a Site Auditor is required.

Appendix G: Guidelines and Reference Documents

Australian and New Zealand Governments (ANZG), (2018). Australian and New Zealand Guidelines for Fresh and Marine Water Quality.

Australian Standard, (2002). AS2460: Acoustics - Measurement of the Reverberation Time in Rooms

Canadian Council of Ministers of the Environment, (1999). Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)

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

Contaminated Land Management Act 1997 (NSW)

Environmental Planning and Assessment Regulation 2021

National Environment Protection Council (NEPC), (2013). National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)

National Occupational Health and Safety Commission (NOHSC), (2005). Guidance note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003 (2005)]

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). Guidelines for Consultants Reporting on Contaminated Land, Contaminated Land Guidelines.

NSW EPA, (2022). Sampling design part 1 – application, Contaminated Land Guidelines

NSW EPA (2022), Preparing environmental management plans for contaminated land

NSW SafeWork, (2019). Code of Practice: How to Safely Remove Asbestos.

NSW SafeWork, (2019). Code of Practice: How to Manage and Control Asbestos in the Workplace.

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)

Protection of the Environment Operations (Waste) Regulation 2014 (NSW)

State Environmental Planning Policy Resilience and Hazards 2021 (NSW)

Western Australian Department of Health, (2021). Guidelines for the Assessment, Remediation and Management of Asbestos-contaminated Soils in Western Australia