Former Tokanui Hospital

Detailed Site Investigation Factual Report

Toitū Te Whenua - Land Information New Zealand

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→ **The Power of Commitment**

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Executive Summary

GHD Limited (GHD) has been engaged by Toitū Te Whenua Land Information New Zealand (LINZ) to undertake contaminated land investigations of the former Tokanui Hospital (the Site) located on Te Mawhai Road, Tokanui, Waikato. This investigation covers the whole site for the purposes of fulfilling a detailed site investigation (DSI) factual report requirement under the Ministry for the Environment's (MfE) Contaminated Land Management Guidelines (CLMG), however noting that the existing disposal sites have been investigated separately by Fraser Thomas Ltd (Fraser Thomas, 2022).

The former Tokanui Psychiatric Hospital is a Deferred Selection Property (DSP) in the Ngāti Maniapoto (herein referred to as Maniapoto) Deed of Settlement (the Deed). The Deed was signed by Maniapoto and the Minster of Treaty of Waitangi Negotiations, became effective on 11 November 2021 and forms part of the Maniapoto Settlement Claims Act 2022. Under the Deed, the Crown has committed to a standalone process within the Property Redress Schedule for the transfer of the Tokanui Hospital (the Tokanui Hospital Deferred Selection Process (THDSP)) which details specific requirements for the demolition and remediation of the Site before it is available for transfer to Maniapoto. LINZ is the Government agency responsible for delivery this project. For detailed project background and context, please refer to the Project Background Document prepared by LINZ (Toitū Te Whenua Land Information New Zealand, 2021). In regards to ground contamination and remediation standards, under Section 9.3 of the deed of settlement property redress schedule, the Crown has agreed to use best endeavours to remediate the Site to:

– 85% of the total land area of the Tokanui Hospital deferred selection properties to "the rural residential remediation standard" (defined in Section 9.1.22 of the Deed as "an acceptable standard or standards for rural residential use chosen in accordance with Contaminated Land Management Guidelines No. 2 Hierarchy and Application in New Zealand of Environmental Guideline Values (Revised 2011) (CLMG 2), or derived through a site-specific risk assessment); and
– A contiguous area not exceeding 15% of the total land area of the Tokanui Hospital deferred selection properties, to "the managed remediation standard" (defined in section 9.1.15 of The Deed as "an applicable standard or standards for recreational use chosen in accordance with CLMG 2, or derived through a site-specific risk assessment, but where use may be subject to controls (for example, in relation to excavating, erecting buildings, or domestic gardening)".

The Deed sets out a process that prior to demolition and remediation, commits the Crown to a number of reports including a Detailed Site Investigation (DSI) and Remedial Action Plan.

The DSI Factual Report (this report) contains reporting of the data collected in the fieldwork programme. This is limited to factual reporting of the fieldwork and is aligned with the requirements of CLMG 1 recommended table of contents for DSI reports. The interpretive parts of the investigation required under CLMG 1 are detailed separately in the **Site Specific Risk Assessment Report** being produced by HAIL Environmental Limited (HAIL).

The purpose of this DSI Factual Report is twofold:

1. to provide a DSI Factual Report prior to commencing any demolition and remediation work as per paragraph 9.4 of the THDSP; and
2. to support application(s) for resource consent that may be required under the National environmental standard for assessing and managing contaminants in soil to protect human health (NES CS), for activities associated with the demolition and remediation works as set out in the Subpart B of the THDSP (*this may include consent for land use change (from a commercial/industrial hospital site to a grassed site with no buildings) and ground disturbance*).

The objectives of the DSI Factual Report are to:

– Collate the data obtained from the fieldwork and sampling
– Provide detail on any departures from the Sampling & Analysis Plan (SAP)
– Comment on field observations and quality control/quality assurance
– Provide the report in a format that aligns with CLMG 1 as per the requirements of the Deed

Fieldwork at the Site was undertaken in March, June, August and September 2023. Sampling was undertaken in accordance with the SAP developed by GHD, with some minor departures. These departures are considered minor and GHD considers that the sampling programme is sufficient to fulfil the goals of the SAP.

GHD has undertaken soil sampling at 192 locations, and sediment sampling in nine locations. Overall, 329 samples have been collected from the Site. Samples were collected with a combination of excavator, hand auger, sediment sampler and hand trowel. HAIL has undertaken X-Ray Fluorescence (XRF) analysis on 95 transects and individual sampling points, and composite samples from 10 areas of the Site. A combined XRF and leachate analysis was undertaken in the halos of three buildings.

HAIL samples were analysed in situ with an XRF, and composite samples were collected with a push sampler and composited on site. Samples for laboratory analysis were collected with a hand digging tool.

Underlying geology generally comprised of clays and sands in the northern part of the Site, and clay in the southwestern portion of the Site. Observed geology is broadly consistent with the published soil and geological information, although allophanic soils appear to reach further north than the published soil data. Groundwater was encountered in one location at a depth of 2.1 metres below ground level.

Demolition fill was observed in areas of the site where demolition had historically occurred, and in the horticultural area. Paint flakes were observed around several buildings.

Samples were delivered to Hill Laboratories in Hamilton for analysis of the contaminants of concern identified during the PSI, namely:

- Metals
- TPH
- BTEX
- PAH
- PCB
- VOC
- SVOC
- Pesticides
- Dioxins
- Asbestos

Screening for volatile compounds with a photo ionisation detector (PID) did not detect the presence of soil vapours around the laundry (B74) (e.g. associated with dry cleaning chemicals) or the former service station (B17) (associated with fuels). Low levels of hydrocarbons were identified with the PID near where the former Store Building (B65) fuel bowser was located (with results ranging between 27 – 28 parts per million (ppm)). Of the 128 samples analysed for asbestos, 12 samples had detections of asbestos.

Full discussion and interpretation of soil and sediment sampling results are included in the accompanying **Site Specific Risk Assessment Report.**

A QA/QC programme has been undertaken, including field and laboratory procedures and duplicate sampling. Based on the results of this QA/QC sampling are considered to be acceptable and the data set suitable for use in the accompanying **Site Specific Risk Assessment Report**.

This report is subject to, and must be read in conjunction with, the limitations set out in section 7 and the assumptions and qualifications contained throughout the Report.

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List of abbreviations/glossary

Acronym/term	Description
*Denotes definitions relevant to this report copied from the Tokanui Hospital Deferred Selection Process, Subpart A: Definitions	
ACM	Asbestos containing material, used to refer to material containing asbestos. These are usually building materials such as fibre cement, cladding material or insulation.
BTEX	Benzene, toluene, ethylbenzene and xylenes, a group of contaminants associated with petrol.
CEnvP SC	Certified Environmental Practitioner (Site Contamination), a professional accreditation for environmental practitioners. This accreditation is also a requirement for LINZ suppliers conducting contaminated land investigations.
CLMG	Contaminated Land Management Guidelines, a series of guidelines produced by the Ministry for Environment used for consistency of reporting and investigation of contaminated sites. The NES CS (see below) incorporates six documents by reference which include the CLMG. For example, interpretation of the NES CS requires preliminary site investigations and detailed site investigations to be prepared in accordance with CLMG 1.
CLMG 1*	means the Contaminated land management guidelines No. 1: reporting on contaminated sites in New Zealand, Ministry for the Environment, revised edition 2011;
CLMG 2*	means the Contaminated land management guidelines No. 2: hierarchy and application in New Zealand of environmental guideline values, Ministry for the Environment, revised edition 2011
CSM	Conceptual site model, a system of identifying contaminant sources, routes of potential exposure, and receptors who may be impacted by contamination. This model is used as the basis of investigation and is an iterative process that is updated as new information is gathered.
Deed of Settlement (the Deed)	The Ngāti Maniapoto Deed of Settlement signed by Maniapoto and the Crown, which was signed on 11 November 2021 and given effect by the Maniapoto Settlement Claims Act 2022, which came into force on 28 September 2022.
Demolition and remediation works*	means the physical works required to carry out the demolition and remediation of each Tokanui Hospital deferred selection property (excluding any new disposal site or existing disposal site on that property) as described in paragraph 9.16;
DSI	Detailed site investigation, as defined in the NES CS; "*a detailed site investigation involves intrusive techniques to collect field data and soil samples for analytical testing to determine concentrations of contaminants of concern.*" The investigation must be done in accordance with CLMG 5 and reported in accordance with CLMG 1 (the DSI report is specifically defined in the Deed, see below).
Detailed Site Investigation report (DSI)*	means a detailed site investigation report as described in the CLMG 1
Existing Disposal Consents*	means the land use resource consents numbered 102269.01.01, 102270.01.01 and 102271.01.01.
Existing disposal sites*	means the two existing sites (as described in the existing disposal consents) located on one of the Tokanui Hospital deferred selection properties that the Crown historically used to dispose of waste; indicated as 'Existing disposal sites' on the plan (subject to survey) 'Tokanui Hospital deferred selection properties' in part 7 of the attachments;
HAIL	Hazardous activities and industries list, as defined in Regulation 3 of the NES CS as, "*The current edition of the Hazardous Activities and Industries List, Wellington, Ministry for Environment.*" The HAIL is a list of 53 activities and industries that are considered likely to cause land contamination through the use, storage or disposal of hazardous substances.
Managed Remediation Standard*	Means an applicable standard or standards for recreational use chosen in accordance with CLMG 2, or derived through a site-specific risk assessment, but where use may be subject to controls (for example, in relation to excavating, erecting buildings or domestic gardening).
NES CS	Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, a set of nationally consistent regulations for the resource consenting of contaminated sites.
OCP	Organochlorine pesticides, a group of pesticides.

Acronym/term	Description
PAH	Polycyclic aromatic hydrocarbons, a group of contaminants associated with diesel fuel and burnt material
PCB	Polychlorinated biphenyls, a group of contaminants associated with electrical transformers.
PID	Photo-ionisation detector, a measurement tool for field screening soil for volatile vapours such as those associated with petrol or solvents.
PSI	Preliminary site investigation, as defined in Regulation 3 of the NES CS as an investigation done by a SQEP, is reported on in accordance with CLMG 1 and results in a report that is certified by the practitioner. The NES CS also states, "*the main objectives of the PSI are to gather information about a piece of land to assess the suitability of the land for its current or intended use, and to design a detailed site investigation (if required).*"
Rural residential remediation standard*	Means an applicable standard or standards for rural residential use chosen in accordance with CLMG 2 or derived through a site-specific risk assessment.
SAP	Sampling and analysis plan, a plan setting out the proposed sampling programme for an environmental investigation and completed in accordance with CLMG 1 and CLMG 5.
Settlement Date	Is defined as s12 of the Maniapoto Settlement Claims Act 2022, being 24 November 2022.
Site-specific risk assessment*	Means the derivation of remedial criteria based on a conceptual site model in a manner generally consistent with CLMG 1.
SQEP	Suitably Qualified and Experienced Practitioner. This is not defined within the NES CS regulations, but in the *Users Guide, National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (April 2012)* which provides guidance on determining who is a SQEP. This is detailed in Section 2.1.1 of the NES CS Users Guide.
SVOC	Semi-volatile organic compounds, a group of hydrocarbon contaminants which are commonly associated with industrial processes.
THDSP	Tokanui Hospital Deferred Selection Process, a standalone process for the demolition and remediation of the Tokanui Hospital set out in Part 9 of the Deed of Settlement: Property Redress Schedule.
TPH	Total petroleum hydrocarbons, a screening analysis used to assess the presence of hydrocarbons in soil.
VOC	Volatile organic compounds, a group of hydrocarbon contaminants associated with fuels, solvents and cleaning products.
WDC	Waipa District Council, the district council the Site is located in.
WRC	Waikato Regional Council, the regional council the Site is located in.
WWTP	Waste-water treatment plant
XRF	X-ray fluorescence spectrometry, a method for screening soil for heavy elements.

1. Introduction

1.1 Background: Ngati Maniapoto Deed of Settlement and the Tokanui Deferred Selection Process

The former Tokanui Hospital (the Site) is managed by Toitū Te Whenua/Land Information New Zealand (LINZ) on behalf of the Crown in the Treaty Settlements Landbank. Land held in the Landbank is Crown land which has been declared surplus and can be used as cultural or commercial redress in Tiriti o Waitangi Settlement claims. The Tokanui Hospital is a deferred selection property in the Ngāti Maniapoto Deed of Settlement (the Deed) and forms part of the Maniapoto Settlement Claims Act 2022, which gives effect to the Deed. The Tokanui situation is unique as no other property included in a Treaty settlement has required demolition and remediation on this scale or required a commitment to undertake remediation in a deed of settlement. Under the Deed, Maniapoto and the Crown have agreed to a standalone process within the Property Redress Schedule, Part 9: Tokanui Hospital Deferred Selection Process (THDSP), for the transfer of the Site which details specific requirements for the demolition and remediation of the Site before it is available for transfer to Maniapoto. LINZ is the Government agency responsible for delivering this project. For detailed project background and context, please refer to the Project Background Document (Toitū Te Whenua Land Information New Zealand, 2021).

Subpart B of the THDSP out sets out agreed standards for the demolition and remediation of the Site. While Opus Limited (Opus) and AECOM Limited (AECOM) have undertaken several previous investigations at the Site, which are further detailed in Section 1.2 of this report, the Crown and Maniapoto have acknowledged at the date of Deed signing, there was not enough information available for the Crown to commit to a particular remediation standard (paragraph 9.2 of the Deed). LINZ have therefore engaged GHD Limited (GHD) and HAIL Environmental Limited (HAIL Environmental) to undertake contaminated land investigations in accordance with the Ministry for the Environment's (MfE) Contaminated Land Management Guidelines (CLMG) to enable LINZ to meet the Crown's obligations in regard to the remediation of the Site as set out in the Remediation Standards, described in detail in Section 1.3. The GHD and HAIL Environmental works will support the demolition and remediation of the Site as part of the Former Tokanui Psychiatric Hospital Demolition and Remediation Project (the Project).

The land will be changed from a commercial/industrial land use to a rural residential land use in accordance with the Deed requirements. This means demolition and removal of the Site buildings, with the Site being left in a grassed state. LINZ will obtain the necessary resource consents under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES CS) for the demolition and remediation activities. Changes in land use as part of future redevelopment will require separate consenting and are not part of the Crown responsibility, that will be the responsibility of the future land owners.

1.2 Background: Investigation Timeline to Date

A number of previous investigations dating back to 2015 have been completed to gain an understanding of the Site to inform detailed demolition and remediation options and associated costings. The investigations from 2015 are summarised below, with further detail on sampling undertaken as part of historical reports provided in Section 3.2.

In 2015, the Ministry of Justice (MoJ) commissioned Opus to prepare a Demolition Plan for the safe and efficient removal of all subterranean infrastructure and services, roadways and terrestrial infrastructure, buildings and hardstanding from the Site, so that it can be returned to pasture. Opus' brief was to provide MoJ a comprehensive Demolition Plan. In the same year, Opus also prepared a Preliminary Site Inspection (PSI) (the Opus PSI) report which comprised an initial contamination assessment of the Site and potential effects on the potential future uses of the Site and was intended to be included as part of the Demolition Plan. The Opus PSI report highlighted areas for which further work was required, in addition to identifying parts of the Site that required a Detailed Site Investigation (DSI).

LINZ took over the responsibility of the Landbank from MoJ and management Site was also transferred. LINZ then became responsible for scoping of any demolition and remedial works. Over the course of 2018 – 2020, LINZ commissioned several reports from AECOM to help inform the project feasibility, costings and agreed the Crown requirements as part of treaty settlement negotiations.

In 2018, AECOM completed a gap assessment of the Opus PSI which included review of the Opus PSI and identification of any gaps in the process that was completed which may have led to potentially contaminating historical activities and/or features, not being identified (AECOM, 2018b). Also in 2018, AECOM completed an onsite disposal feasibility study. The options assessment report identified two key variables affecting the final level of remediation:

– whether demolition waste from the site will be transported offsite or contained in a purpose-built landfill onsite; or,
– whether horizontal infrastructure, such as roading and below ground services, are removed or partially retained on Site.

In 2019, AECOM completed a DSI of the Site (the AECOM DSI). The purpose of the AECOM DSI was to assess the soil contaminant conditions at the Site and the associated risk to human health and the environment, for a proposed future agricultural land use. AECOM stated that given its size, it was not practical to investigate all areas of the Site, therefore the approach taken was to investigate soils associated with selected areas / features, which collectively are representative of the wider Site (AECOM, 2019).

The AECOM DSI included a conceptual site model (CSM) which considered source, pathway and receptor linkages, allowing an assessment of risk to human health and the environment. AECOM concluded that the CSM showed some complete and potentially complete source, pathway, receptor linkages, and that the soil contaminant conditions at the Site could pose some risk to human health and the environment if no soil remediation is completed (AECOM, 2019).

1.3 GHD and HAIL Environmental Investigations

GHD and HAIL Environmental have been engaged to undertake contaminated land investigations in accordance with the CLMG to enable LINZ to meet the Crown's obligations regarding the remediation of the Site.

The investigations comprise iterative steps as per the MfE's CLMG. These steps are summarised in Figure 1 with more detailed descriptions in the remainder of this section.

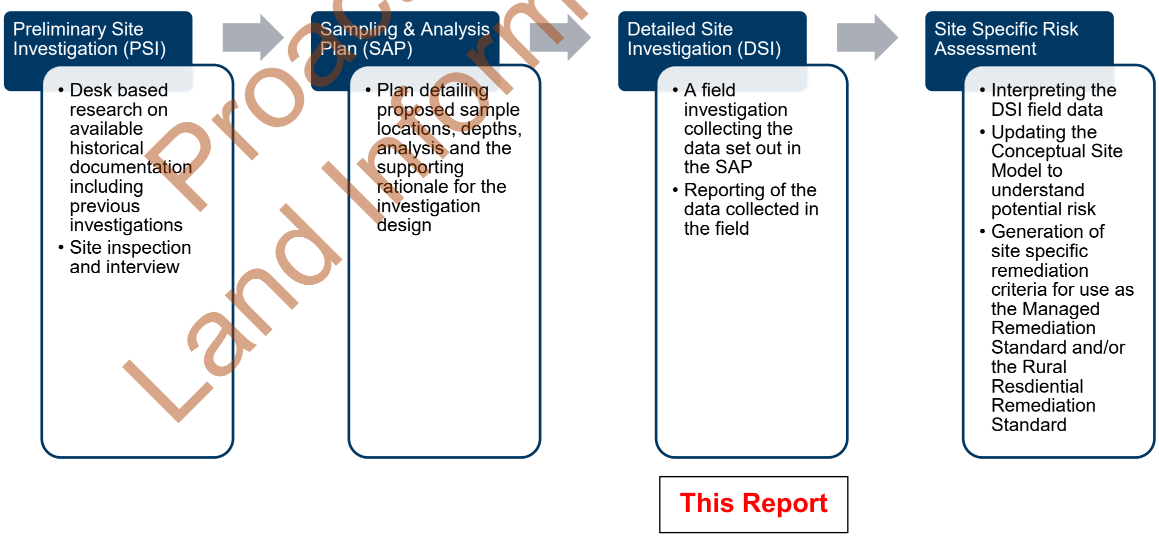

Figure 1 Tokanui Site Investigation Process

The first step was a PSI encompassing the entire Site, undertaken by GHD in 2022; the PSI comprised:

– A thorough site walk over.

– An interview with a former hospital staff member.
– Research of council and other publicly available records.
– Review of existing reports to identify and close data gaps.
– Identification of historical activities that have the potential to have caused contamination that are listed on the MfE HAIL.
– The refinement of the conceptual site model developed by AECOM (2019) to reflect findings from the PSI and inform this Sampling and Analysis Plan (SAP).

In order to understand the degree and extent of contamination that may have occurred, an intrusive investigation including field screening and laboratory analysis is required across the Site as part of a DSI. Such investigations typically involve sampling different environmental media (e.g. soil and sediment) via a number of sampling techniques and the use of a variety of laboratory chemical analysis. CLMG No.5: Site Investigation and Analysis of Soils (Ministry for the Environment, 2021) recommends that an SAP be prepared as part of the investigation to provide the methodology for addressing the investigation objectives and data gaps identified during the PSI.

The SAP (GHD, 2022b) took the information from the PSI and previous reports in order to design a sampling programme for the identified HAIL activities. The proposed field work and sampling was then completed as part of this DSI.

Following completion of the field investigations, the next step of the project is to undertake a site-specific risk assessment in order to generate site specific remediation criteria for use as the Rural Residential Remediation Standard and/or Managed Remediation Standard as defined in the Deed.

Report Structure

As shown in Figure 1 (Tokanui Site Investigation Process), this DSI report includes the reporting of the data collected in the fieldwork programme. This report is limited to factual reporting of the fieldwork and is aligned with the requirements of CLMG 1 recommended table of contents for DSI reports. The interpretive parts of the investigation required under CLMG 1 are detailed separately in the **Site Specific Risk Assessment Report** being produced by HAIL Environmental. This report has therefore been named the **DSI Factual Report** and contains the following:

– Section 1: Introduction
– Section 2: Site Description
– Section 3: Historical Site Use
– Section 4: Sampling & Analysis Plan
– Section 5: Sampling Results – limited to:
  - Departures from the SAP
  - Field observations
  - Results of field and laboratory quality assurance/quality control
  - Provision of data tables

The HAIL Environmental **Site Specific Risk Assessment Report** will contain evaluation and interpretation of results, statistical analysis, generation of site specific remedial criteria, an updated conceptual site model and risk assessment. Combined, these two reports comprise the DSI for the Site.

The DSI Factual Report should be read in conjunction with the Site Specific Risk Assessment Report.

The GHD / HAIL Environmental DSI did not include an intrusive investigation into the existing disposal sites on the eastern side of the Wharekōrino Stream which has been investigated separately by Fraser Thomas Ltd (FTL).The report on the existing disposal sites should be read in conjunction with **DSI Factual Report** and **Site Specific Risk Assessment Report**.

1.4 Purpose & Objectives

The purpose of this document is twofold:

1. To provide a DSI prior to commencing any demolition and remediation work as per paragraph 9.4 of the THDSP; and
2. To support resource consent(s) for the demolition and remediation works as set out in the Subpart B of the THDSP.

The objectives of the DSI Factual Report are to:

- Collate the data obtained from the fieldwork and sampling.
- Provide detail on any departures from the SAP.
- Comment on field observations and quality control/quality assurance.
- Provide the report in a format that aligns with CLMG 1 as per the requirements of the Deed.

2. Site description

2.1 Site identification

The Site is located at 149 Te Mawhai Road, Tokanui, Waikato, approximately 6.2 kilometres south of Te Awamutu. A map of the Site is included as Figure A1 in Appendix A. Table 1 below summarises the information about the Site.

Table 1 Site details

Attribute	Details
Site name	Former Tokanui Hospital
Address	149 Te Mawhai Road, Tokanui, Waipā
Legal description	Section 1, SO 44852
Site area	79.0175 Hectares
Regional council	Waikato Regional Council
District council	Waipā District Council
Zoning	Rural, under the Waipā District Plan

2.2 Site layout

There are 74 remaining buildings associated with the hospital; several buildings have already been demolished prior to LINZ management of the site. Structures originally onsite supported patient care as well as patient wards, housing/accommodation for hospital employees, waste-water treatment plant (WWTP), substations (some containing transformers), a swimming pool, a closed landfill (existing disposal site) and substantial roading and underground infrastructure such as three waters, electrical and communications, and steam ducts associated with the operations at the hospital.

A building identification system was adopted during previous investigations. Site buildings and the building identification system are listed with locations shown in Figure A2, Appendix A.

The buildings at the Site are mostly in a deteriorated condition, and asbestos and lead paint are known to be part of the building fabric.

The Site is predominantly grassed, with building structures, and asphalted roads central areas. There are small groups of trees along the roadways and amongst the buildings. Access to the Site is via the main access gate on Te Mawhai Road.

Services mostly follow the roads with some water and power infrastructure cutting across grazing areas. FTL has undertaken a detailed assessment to confirm the extent and location of the services throughout the Site as part of their horizontal infrastructure assessment (Fraser Thomas, 2023).

The northwestern boundary of the Site includes six residential tenanted houses; the eastern boundary of the Site adjoins a residential village of ~50 tenanted houses; and a second residential village and decommissioned WWTP, approximately 1 kilometre to the east of site. The residential villages are out of scope of the demolition and remediation project.

Following engagement with mana whenua and the completion of an archaeological assessment by CFG Heritage, several sites of archaeological and cultural significance have been identified. LINZ has therefore implemented accidental discovery protocols, engaged cultural monitors, and obtained archaeological authority under the Heritage New Zealand Pouhere Toanga (HNZPT) Act (2014) for ground disturbance in areas with potential for pre-1900 human occupation. These locations are shown on Figure A1, Appendix A. Further information regarding sites of cultural and archaeological significance can be found in the Cultural Impact Assessment (Te Muraahi & Maniapoto, 2021) the Archaeological Assessment (CFG Heritage, 2023) and the Waahi Tapu Investigation and Cultural Induction Summary (TAR Block Ltd., 2023). It is worth noting these documents were used to enable the contaminated land investigations and that LINZ is continuing open dialogue with mana whenua representatives for the life of the project. New information regarding sites of cultural significance on the Site will be incorporated by LINZ into the remedial options and into any future archaeological authority application for ground disturbance associated with the remedial works.

2.3 Current site uses

Grassed areas of the Site are leased for stock grazing. Security and maintenance personnel are frequently working at the Site, and police training exercises (such as the training of police dogs) frequently occurs at the Site.

Building 59 (the gardener shed) is used as a base for the current lease holder for the site (see Figure A2, Appendix A for location). The shed contains old, empty IBCs and drums. An old concrete pad with weed spray storage signage is included on the eastern side.

A waste-water treatment plant previously operated at the Site (see Figure A2, Appendix A for location) until 2019 when it was decommissioned and replaced with a pump station.

2.4 Proposed site use

As per the THDSP, the Crown will, in carrying out the demolition and remediation works:

- Comply with all necessary consents and approvals for the demolition and remedial works.
- Remediate the land in accordance with the applicable remediation standard.
- Remove all vertical building structures from the property.
- Determine the extent of horizontal infrastructure to be removed, subject to Ministerial decisions.
- Ensure that where the land has been damaged by the impact of the demolition and remediation works, it is left free of building debris and is stabilised by grassing.

Future land use beyond the demolition and remediation of the Site is unknown but likely to be a rural residential use (e.g. agricultural land with farm houses), based on surrounding land uses. Any development of the Site in the future is beyond the scope of the Crown.

2.5 Surrounding land uses

The Site is located in a predominantly rural area. Some residential properties are located to the north and east, the AgResearch Tokanui Dairy research farm is located to the south-east, with the remainder of the surrounding land being in agricultural use, mostly as dairy farms. There are several wāhi tapu sites located within 500 metres of the Site, including Waipuna/freshwater springs, cultural and archaeological sites 400 metres to the north-east, the Te Wawhai Road willow wetland located immediately north of the WWTP and a forest patch 250 metres east of Wharekino stream (Waipā District Council, 2016).

2.6 Site inspection

A site walkover was undertaken by a GHD Technical Director in August 2022 as part of the PSI. A summary of the findings of this walkover are included below in in Table 2.

Table 2 Site Walkover Summary of Key Observations

Building/area	Observations
B8: Dentist building	A discharge pipe from routed from inside the building was observed to exit on the eastern side of the building at the edge of the concrete pad. This pipe discharges to ground.
B16: Petrol station	The concrete island and some pipework are still visible. A manhole is located between the island and the building. Previous sampling undertaken by AECOM as part of the Z Energy Ltd. tank removal report have shown that the material beneath the concrete island and fuel lines had been impacted by the operation of the fuel tank but were suitable to remain on site. The workshop part of B16 still has vehicle inspection fits, these were filled with water. Some minor fly tipping was observed to the east, which shows some evidence of burning.

Building/area	Observations
B57: Swimming pool	Evidence of chemical storage was observed in the form of drum storage in one of the outer buildings. This is likely to have been a pool-cleaning chemical, but this could not be confirmed via drum labels.
S2: Substation 2	Chicken wire is placed across the door. Equipment, including transformers can be observed inside.
Gully to the south of B8	The gully has a culvert which enters from the eastern side. Appears to be a surface water collection area. This location was sampled by AECOM as part of their site investigation.
B59: Gardeners Shed	Contains old, empty Intermediate Bulk Containers (IBCs) and drums. Currently used by the farmer for storage. An old concrete pad near the door with weed spray storage signage on it on the eastern side.
B61: Shed 11	A small square building in the commercial area of the Site. It has no windows and has vents on the outside. Initially not accessible at time of initial site inspection, but subsequent access has shown it contains a small above ground tank (potentially an air compressor) and associated pipework. Its exact use is unknown. The current utility service plans for the area do not show a piped connection to this building. Some minor oil staining on the internal floor was evident.
B63: Workshop	There is a large extraction chimney to the back of the workshop, which is a former wood working area. Sawdust was observed on the ground.
B65: Store	An old UST was present in the grass. The tank vent is still visible on the exterior of the building. The bowser footing is visible under the canopy.
B66: Assistant engineers office	Building has a vehicle ramp, with oil change/service pit outside. Oil filters were observed on the ground underneath the pit.
B67: Incinerator Shed 8	A small shed with a chimney. External pipe lagging on the northern external wall appears to contain asbestos fibres.
B68: Main boiler house	A hopper for coal was located on the eastern side. A sump is located beside the stairway below ground, filled with liquid and old plastic containers. On the northern side an old AST bund with pipework above ground entering the building. Old transformer units were located within the building.
B73: Shed 7	Appears to be a pump house associated with the laundry. The discharge point from the shed is unknown. There is a concrete plinth inside which has oil staining. A pipe tunnel with concrete paver covering in the paddock to the north appears to connect to the Laundry Building (B74). A scrub area in the paddock appears to have a discharge point within it, with stepped concrete surrounding it. This is heavily overgrown and may just be a stormwater drainage point.
B74: Laundry	A long building with a high glass roof. GHD was unable to access the building due to the risk of glass dropping inside. There are small concrete channels exiting the base of the building towards B73. On the western side of the laundry building is a blue stick up pipe, which looks like a monitoring well without a cap. There are piles of asphalt scrapings in the same area. On the south side near the pedestrian entrance there are downpipes to the ground which come from the inside of the building and may be a possible area of discharge to the ground.
B35: Shed 1	A corrugated iron shed with no internal floor. Inside is some internal wooden racking and concrete structures. Immediately to the west are the ruins of a larger building, which includes areas of concrete lined below ground pits.
Area between B34 and B35	A number of concrete foundations, believed to be from former glasshouses.
Eastern/ south-eastern edge of paddock	A linear concrete structure leading to the paddock fence in the direction of the stream. The use of this structure is unknown but may have been used as a livestock dip.
South-east of the paddock	An old chimney base and other depressions and hummocks are present in the ground.
WWTP Seepage	The WWTP pump station appears to discharge to the stream just south of the main road. Seepage was observed near the main discharge pipe, flowing from an area showing some ground collapse.
WWTP Discharge	During the walkover it was noted that a concrete discharge pipe flows into the Wharekōrino Stream from the pump station. This was associated with visibly poor water quality and algal growth.

2.7 Environmental setting

2.7.1 Site topography

The topography of the Site is gently undulating, with elevations ranging. Elevation ranges between 29 and 46 metres above sea level.

2.7.2 Soils

The Manaaki Whenua Landcare Research 'SoilsMapViewer' (Manaaki Whenua Landcare Research, 2022) identifies two main soil types underlying the Site, Orthic Gley soils ordinary Gley Soils, usually found on older land surfaces. They are strongly affected by waterlogging and have been chemically reduced. They have light grey subsoils, usually with reddish brown or brown mottles. The grey colours usually extend to more than 90 cm depth. Waterlogging occurs in winter and spring, and some soils remain wet all year.

Orthic Allophanic Soils are deep Allophanic Soils, dominated by allophane (also imogolite or ferrihydrite) minerals. These stiff, jelly-like minerals coat the sand and silt grains and maintain porous, low-density structure with weak strength. The soils are identified by a distinctly greasy feel when moistened and rubbed firmly between the fingers. The soil is easy to dig and samples crumble easily when crushed in the hand (Manaaki Whenua Landcare Research, 2022).

Due to their large specific surface area and small particle size, allophanes are very reactive and have a high ion exchange capability This may lead to charged contaminants such as metal ions adsorbing to the surface of these grains (Parfitt, 1990) (McLarren & Cameron, 1996).

Figure 2 below shows the soil units underlying the Site.

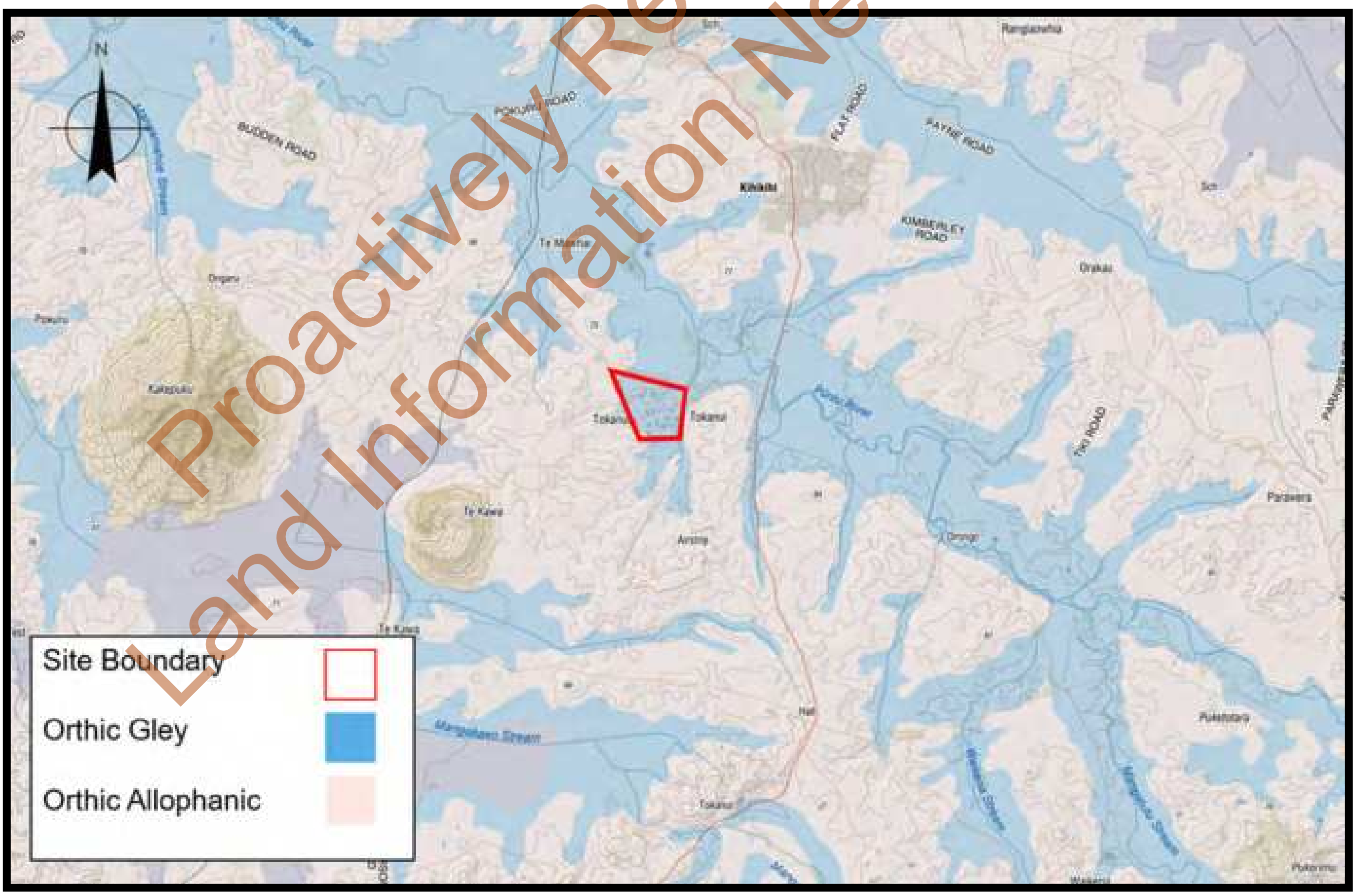

Figure 2 *Soils map*

2.7.3 Geology

The Institute of Geological and Nuclear Science (GNS) 1:250,000 map of the Waikato (Edbrooke, 2005) shows two main geological units underlying the Site, Typically unconsolidated alluvial sediments (Middle Pleistocene - Late Pleistocene river deposits of the Piako subgroup of the Tauranga group, described as locally derived pumiceous clays, sandy clays and gravels).

Distal ignimbrite deposits of the Tauranga group (Early Pleistocene - Middle Pleistocene river and igneous deposits of the Walton subgroup of the Tauranga group, being alluvium dominated by primary and reworked non-welded ignimbrite).

The basement rock underlying the Hamilton Basin consists of faulted greywacke (indurated sandstone, siltstone and mudstone) of the Waipapa Terrance.

Figure 3 below shows the underlying geology of the Site. Geological observations from this investigation are included in Section 5.2.1

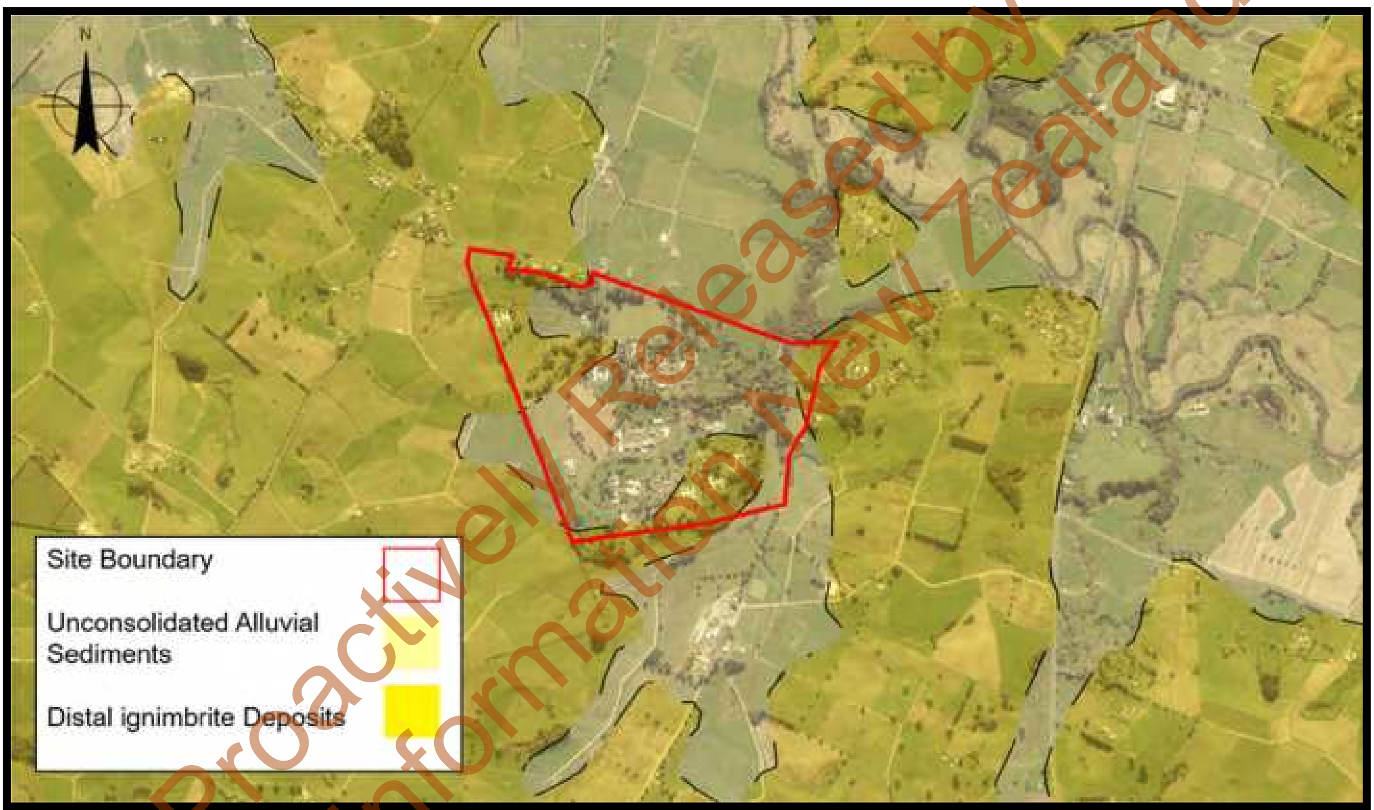

Figure 3 Underlying geology

2.7.4 Hydrogeology

The Site is located within the area classified by WRC as the Waipa Aquifer under Section 3.3 of the Waikato Regional Plan (Map 11) (Waikato Regional Council, 2012). This aquifer underlies an area of approximately 1,420 km^2 within the Waikato Region.

The site is located above the Waipa Aquifer, in the southern end of the Hamilton Basin. The Waipa Aquifer can be considered as a regional aquifer, with a single hydrogeological unit comprising groupings of multiple units of undifferentiated unconfined and leaky aquifers, making it difficult to establish high yielding wells in the aquifer (Schofield, 1972) (Perch & Marshall, 1988).

A search of the Wells Aotearoa New Zealand website (Te Uku Kahika, 2022) indicated a total of six groundwater bores were located within 500 metres of the Site. None of these bores are used to supply potable drinking water.

Groundwater observations made during the AECOM DSI investigation ranged between 1.3 and 2.4 m bgl. These measurements were from test pits within the commercial area of the Site and were collected between late May and September, implying that these are likely to be high winter groundwater levels (AECOM, 2019).

Annual monitoring of bores is undertaken by WSP as part of a resource consent (Number 102269) associated with the former disposal sites on the east side of the Wharekōrino Stream. Two bores known as P2 and P7 are sampled with groundwater levels measured. Groundwater is sampled to coincide with high and low groundwater levels (generally September and April). The WSP annual reports from 2020 and 2021 (WSP, 2020) (WSP, 2021) both indicated that the P2 and P7 bores were dry. Groundwater samples were collected from P2 and sent for laboratory analysis in both 2018 and 2019 (WSP, 2018) (WSP, 2019a), but no groundwater levels were recorded in either of the reports. The AECOM 2019 data is therefore the only groundwater level data within the Site.

No assessment or investigation to confirm groundwater flow direction has been undertaken to date; however, the regional groundwater is inferred to flow in a general northerly direction, towards the Pūniu River. Localised groundwater is inferred to flow to the east towards the Wharekōrino Stream, which transects the Site.

2.7.5 Hydrology

The nearest surface water body is the Wharekōrino Stream and flows south to north and through the Site, ultimately flowing into the Pūniu River, located approximately 600 metres north of the Site.

The Opus report (Opus, 2015) states that several drainage ditches across the Site flow into a larger gully, oriented west to east, which leads into the Wharekōrino stream. The AECOM DSI (AECOM, 2019) identified a low-lying area to the southeast of the bus shelter and carpark building (B09) as a suspected area where stormwater would collect.

2.8 Stormwater

A survey of horizontal infrastructure undertaken by FTL in 2023 included an assessment of the stormwater system at the Site. The majority of stormwater is routed to a retention basin in the centre-east of the Site and then to a tributary of the Wharekōrino Stream. This is known as the Trunk Stormwater System. Remaining stormwater was found to discharge via a separate discharge point or was cross connected to other services (e.g. discharged to the sewer). Key findings are as follows:

– The majority of site drainage discharges to the Trunk Stormwater System. This also takes drainage from land to the west outside of the Site and flows into the stormwater retention basin which drains to the east via a stormwater grate, identified as SWMH (NOGISID6). This then discharges eastwards to a tributary of the Wharekorino Stream.
– Building 26, Former Wards 21/21A: this area drains directly to the Wharekorino Stream via a separate drainage outlet
– Building 03: CCTV shows drainage heading to the north before being lost in a flooded section. The discharge point is unknown.
– Building 55: believed to have a cross connection to the wastewater pipe at this location

Direct stormwater discharge to surface water is therefore limited to two locations, the discharge from the Trunk Stormwater System via the stormwater retention basin, and the direct discharge from Building B26 (Fraser Thomas, 2023).

Figure 4 below shows the stormwater discharge points from the Site.

Figure 4 *Stormwater discharge points*

3. Historical site use

3.1 Summary of site history

The Site was first designated as a hospital in 1910 and was opened in July 1912; by the 1960s it was one of the largest psychiatric institutions in New Zealand (Swarbrick, 2022). The move towards deinstitutionalisation meant a shift towards community care, and smaller more decentralised psychiatric wards attached to general hospitals and the hospital eventually closed in March 1998 (Coleborne, 2012). Following its closure, the Site was transferred from the Waikato District Health Board (DHB) to the Office for Treaty Settlements Landbank, initially managed by Ministry of Justice and then transferred to LINZ in 2017.

Over the period of occupation, the Site expanded, with additional wards being constructed and site infrastructure being upgraded to support this expansion. The Site stopped expanding in the 1970s, with some buildings being demolished from the 1980s onwards.

3.2 Previous sampling

Sampling has been undertaken as part of four previous investigations at the Site, two underground storage tank (UST) removal reports, a DSI undertaken of the hospital site targeting the halos of the structures at the site and representative areas, and a DSI focusing on the decommissioning of the WWTP. The findings of these reports are summarised below. A map summarising the historical sampling locations at the Site in the above reports is included in Appendix A, Figure A3.

3.2.1 AECOM (2018) Underground Petroleum Storage System Removal at the Former Tokanui Hospital

This report documents AECOM's supervision of the removal of an underground petroleum storage system (UPSS) (AECOM, 2018a) located near the former store building (B65), the associated soil sampling and a risk assessment. The removal was undertaken on behalf of the UPSS owners, Z Energy. Sampling occurred after the removal of a 5,000 litre steel UST on 30 and 31 July 2018.

Hydrocarbon odours were noted in the base of the tank pit but no visual evidence of impacted material was noted. Six samples were analysed for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene and xylenes (BTEX) suites and a metals suite. None of the samples remaining at the site exceeded acceptance criteria for a tier one residential/agricultural land use (all pathways and inhalation) and maintenance/excavation worker (soil acceptance criteria) when compared to the relevant guidelines.

Two samples were collected from stockpiled material and analysed for TPH, BTEX and a metals suite. These were compliant with the above criteria, however the material was removed from site.

3.2.2 AECOM (2018) Underground Petroleum Storage System Decommissioning at Tokanui Hospital

This report documents the decommissioning and removal of an UPSS from the former petrol station (Building B16), the associated soil sampling and a risk assessment. The work was commissioned by Z Energy Ltd as owner of the tanks between 26 and 30 July 2018 (AECOM, 2018c).

No soil discolouration was observed within the tank pits or UPSS components. Hydrocarbon odours were noted in the excavated bedding material that supports the tank. A steam pipe, constructed of potentially asbestos containing material was observed during excavation and remains in place.

A total of 21 samples were analysed for TPH and BTEX. None of the soil remaining at the Site exceeded soil acceptance criteria for a tier one commercial/industrial and agricultural land use. Minor hydrocarbon impacted material was removed from the site.

The excavation was reinstated with GAP40 Gravel. Due to the distance of surface water bodies from the UST removal area hydrocarbon soil impacts from the UST were not assessed against the soil acceptance criteria for protection of groundwater quality.

3.2.3 AECOM (2019) Tokanui Hospital: Detailed Site Investigation (draft)

This report outlines the DSI AECOM undertook at the Site in May and July 2019 (AECOM, 2019).

AECOM's approach to the investigation was to assess the soils associated with features of the site and use them as a representative sample of the activity undertaken in the location. These fell into four categories:

– Green space and undeveloped areas, then used for stock grazing (the grassed areas predominantly along the western and southern boundary of the Site
– The 'commercial area' of the Site, where the majority of identified HAIL activities were undertaken when the Site was operational
– The buildings, a selection of which were investigated
– A low-lying area where stormwater potentially collects

Buildings at the Site were grouped into seven categories based on their cladding, roof type and condition of guttering. Buildings halos were investigated to assess the lateral and vertical extent of the potential impacts. Samples were collected between 0.5 – 2.5 m from the building edge, with additional sampling at some buildings at a distance of 6.5 m from the building edge. Samples were collected from depths of 0, 0.25 and 0.5 m bgl.

Samples from the green space, stormwater collection area and commercial area were excavated with a combination of manual excavation and use of an excavator.

Field screening of samples was undertaken with an X-ray fluorescence (XRF) detector and photo-ionisation detector (PID). Results of the XRF screening for lead in the building halo showed exceedances of background concentrations of lead in all building types, and almost all building groups had exceedances of adopted human health guidelines for asbestos or lead (BRANZ asbestos guidelines and CCME Canadian Environmental Quality guidelines), with the most significant impacts being the structures with "asbestos roof, all guttering conditions, all cladding types" and "painted iron roof, no/damaged guttering, all cladding types". The full extent of the exceedances was not vertically or horizontally delineated in the majority of building halos.

Test pitting in the green space of the Site showed exceedances of background concentrations for several metals, and an exceedance of the adopted human health guidelines for copper, and asbestos (CCME Canadian Environmental Quality guidelines, BRANZ asbestos guidelines).

Test pitting in the commercial area of the Site showed exceedances of background concentrations for several metals, and an exceedance of the adopted human health guidelines for arsenic, chromium, copper, and nickel (CCME Canadian Environmental Quality guidelines).

Test pitting in the stormwater collection area of the Site showed exceedances of background concentrations for several metals, and an exceedance of the adopted human health guidelines for lead and copper (CCME Canadian Environmental Quality guidelines).

3.2.4 WSP (2019) Tokanui Village and Hospital Waste-water Upgrade Detailed Site Investigation

WSP undertook a DSI of the Hospital WWTP ahead of the WWTP decommissioning (WSP, 2018b). The WWTP is geographically separate from the main hospital site, with the two being separated by the Wharekōrino Stream. The former hospital area lies to the west of the stream and the WWTP on the east of the stream.

A total of 12 samples were collected from six locations in the northern half of the WWTP site from the area around the drying beds prior to works being upgrade works being undertaken and analysed for a metals suite, volatile organic compound (VOC) suite and asbestos.

Metals were found to be above background concentrations, but below applicable human health guideline values (commercial/industrial). VOCs and asbestos were not detected in any of the samples.

3.3 GHD (2022) Former Tokanui Hospital Preliminary Site Investigation

GHD undertook a PSI of the Site in 2022 (GHD, 2022a). This investigation included:

– A review of the available information and data from the previous existing reports provided to GHD to identify and close any data gaps identified.
– Identify activities on the MfE Hazardous Activities and Industries List (HAIL) and potential sources of contamination for the purposes of change of land use under *the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* (NES CS) (changing from a commercial industrial hospital site to a grassed site with no buildings) and compliance with the terms of the Deed.
– Refine the conceptual site model developed by AECOM (2019) to reflect the findings from the PSI and inform the sampling plan.

The PSI identified 43 locations where HAIL activities have taken place were identified across the Site. These activities include:

– A2: Chemical bulk storage – *located in the water treatment plant.*
– A5: Dry cleaning plants including dry-cleaning premises or the bulk storage of dry-cleaning solvents – *located in the Laundry.*
– A8: Livestock dip operations – *located in the horticultural area.*
– A10: persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds – *associated with the spray shed, horticultural areas, sports turfs.*
– A14: Pharmaceutical manufacture including blending, mixing or formulation of pharmaceuticals – *located in the Pharmacy.*
– A17: Storage tanks or drums for chemicals or liquid waste – *Swimming pool chemical store, water treatment plant, morgues, fuel storage tanks*
– B4: Substations – Associated with the *substations*
– E1: Asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition – *associated with current and previously demolished buildings.*
– F4: Motor vehicle workshops – *associated with the vehicle workshop.*
– F7: Service stations including retail or commercial refuelling facilities – *associated with the refuelling area.*
– G4: Landfilling – *Waste disposal to land – the consented disposal sites.*
– G6: waste or wastewater treatment – *Incinerator, hospital wastewater treatment plant.*
– I: Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment – *associated with the boiler, dentist, fly tipping, sawdust pile*.

The existing conceptual site model (CSM) was updated based on the findings of the PSI. This CSM identified potentially complete linkages between contaminant sources on Site and sensitive human and ecological receptors, namely excavation workers, future land users, the Wharekōrino Stream and the cultural areas of the Site.

This CSM, and the rest of the findings of the PSI have been used to develop the SAP for the Site. This SAP is discussed in Section 4.

4. Sampling and analysis plan

Due to the size of the investigation GHD has developed a separate Sampling and Analysis Plan (GHD, 2022b), which is included in this report as Appendix B.

The SAP has been designed to achieve the following objectives:

– Ensure the DSI has been adequately scoped to address the remaining uncertainties or data gaps identified in the PSI.
– Detail the analytes to be investigated, field techniques, analytical techniques and methods, statistical methods to enable the development of site-specific remediation standards.
– Ensure the DSI will be fit for purpose to support resource consent application(s) associated with the demolition and remediation works.
– Ensure the DSI will provide the statistical level of confidence required to inform the remedial strategy and Assessment of Remedial Options for future decision making regarding remedial and/or management approaches for soils that are compliant with paragraph 9.3 of the THDSP.

The SAP has been produced in general accordance with CLMG 1 and 5 as per the requirements of the Deed.

The sampling programme was designed to address the data gaps identified in the PSI. This included assessing and delineating the impacts of the HAIL activities and deteriorating building fabric on the soil and sediments at the Site.

This sampling programme was informed by and builds on the existing data sets from the AECOM draft DSI, 4Sight Consulting Limited's Asbestos and Lead Paint Demolition Survey Reports (Areas 1 – 4), and the WSP DSI of the WWTP. It used a combination of field screening techniques (XRF and PID) and laboratory chemical analysis of soil and sediment samples.

A combination of targeted sampling (targeting point source locations and building halos) and systemic sampling (targeting the larger areas of the Site such as the grazing areas and the horticultural area) was undertaken. Compositing was undertaken where appropriate in these larger areas. Samples were analysed for contaminants associated with the relevant activity, and leachability analysis was undertaken on selected samples to assess the potential for soil leaching in landfill or soil leaching into the underlying groundwater.

Samples were collected via mechanical excavation, hand auger or other hand tool, or sediment sampler. Samples were handled under appropriate chain of custody controls, and a quality control/quality assurance programme will be put in place to provide further robustness.

The data from the sampling programme will subsequently be used to undertake a site-specific risk assessment to generate site specific remediation criteria for use as the Rural Residential Remediation Standard and Managed Remediation Standard as defined in the Deed.

5. Sampling results

5.1 Summary of field work

GHD's fieldwork were undertaken in three phases:

- Between 6 – 30 March 2023
- Between 7 – 29 June 2023
- Between 11 – 12 September 2023.

HAIL Environmental fieldworks were completed 6 – 15 March 2023, with additional sampling undertaken on 28 August 2023.

GHD has undertaken soil sampling at 192 locations, and sediment sampling at nine locations.

HAIL Environmental completed XRF analysis on 95 building transects and individual sampling points, as well as composite sampling of 10 open space areas of the Site. Additionally, three building halos were sampled for leachate analysis.

Maps showing the sampling locations for the soil sampling, sediment sampling, XRF soil analysis and open space soil composite sampling are included in Appendix C.

Samples were collected in line with the SAP as detailed in Section 4. Minor departures from the SAP are described in Table 3 below.

Table 3 Changes from the SAP

Location	Reason	GHD comment
B35_HA01 and 04 B35_HA02 and 03	Unable to hand auger through concrete slab.	The collection of sample B35_HA02 and 03 via breaking through the concrete slab with an excavator and use of an excavator to sample instead of a hand auger provided a sufficiently representative sample. B35_HA01 and B35_HA04 were therefore not collected. An excavator was used to break the surface and collect samples.
B57_TP01 B61_TP01	Unable to drill through floor slab.	The slab thickness likely has protected the underlying soil and contaminants are unlikely to have entered the soil profile.
B66_HA01 and 02	Unable to access through concrete slab and above ground structure.	A surface sample of the material on top of the concrete slab was collected.
SCH_TP 01 - 04 TRF_TP 01 – 03 B7_TP 01 and 03 CHP_TP 03 B3_TP 01 and 03	Unable to access location with excavator.	A hand auger was used to collect samples.
B67_HA 01 and 02	Unable to hand auger through asphalt seal	An excavator was used to break through the surface and collect samples.
Changes in compositing schedule	To assess the same underlying soil unit.	The sample depths outlined in the SAP are based on the observed geology and the published soil and geological maps of the area, as well as the assumed soil horizon depths. As the presence and depths of horizons differed from the SAP, scheduling had to be modified. Composite samples were collected at the same locations as per the SAP. The compositing process is further discussed in Section 5.3.1

Location	Reason	GHD comment
HT_Comp C1, HT_Comp E2, HT_Comp E4	Additional sampling in order to assess unanticipated fill material.	Bricks, tile, concrete and other fill material was observed in the horticultural compositing area of the Site. To assess the potential impacts associated with this and in order to keep the composite samples representative of the undisturbed soil units, separate additional analysis for metals, PAH and asbestos was undertaken on the sub-samples containing this fill material and those sub-samples were not included within the composite analysis. This removal of these samples is reflected in the lower amount of sub-samples shown in Table 5.

GHD and HAIL Environmental considers that these changes are minor and that the sampling programme is sufficient to fulfil the goals of the SAP.

5.2 Field observations

5.2.1 Underlying soil and geology

Geological logs documented by GHD are included in Appendix D. A summary of the geology encountered and examples photos are provided below.

Generally, soil in northern areas of the Site consisted of a dark brown silty clay topsoil to a depth of approximately 0.4m bgl. A reddish-brown clay with fine trace sand between approximately 0.4 – 0.9 m bgl and a reddish-brown to grey sand underlying the clay. Figure 5, below, shows an indicative example of the soil profile in the northern areas, the photo is taken from location HT_COMP G1.

Figure 5 HT_COMP G1

The southern area of the Site in contrast was typically a sandy clay, an example of this material is provided in Figure 6. Where test pits were extended below 2.0 m bgl, a sandy silt was encountered.

Figure 6 B74_TP09

Parts of the south-western areas of the Site, specifically around the stores (B65) and Gardeners Shed (B59), tended to have a stronger blue colouring within the encountered clay. Figure 7 below shows an indicative example, from B65_TP03. Figure 8, below, shows a close-up example of the blue clay.

Figure 7 B65_TP03

Figure 8 B59_TP01

HAIL Environmental field observations included:

- Soil appeared to differ based on topography. Soils encountered at the more elevated areas of the site (outside of the centre) were generally described as comprising dark brown silt (topsoil) to a depth of between 0.1-0.4 m below ground level (bgl), underlain by an orange-brown silt.
- Soils encountered at the less elevated areas of the site (near the centre) were generally described as comprising brown silt (topsoil) to a depth of between 0.05-0.2 m bgl, underlain by light brown clayey silt with orange and grey mottling.
- Northern areas of the site were noticeably wetter, with reeds and other wetland plants noted within paddocks, and had field drainage installed. These areas were represented by COMP01 and COMP02. Only push sampling was undertaken in these areas, so the soil profile was not inspected. The topsoils appeared similar to those generally encountered across the site.

Overall soils in the northern portion of the Site (broadly the area north of the drainage gully, including the north-western area of the Site where the former Nurses' Home was located), the north-eastern area horticultural area, and around the original hospital area were consistent with the orthic gley soils described in the published soil map.

Soils in the southern portion of the Site (broadly the area south of the drainage gully, including the areas around the laundry (B 74), boiler (B 68), stores (B 65), and gardener shed (B 59)) were consistent with the orthic allophanic description in the published soil map. Additionally, one location to the north of the Former Ward F building (NW_Fill TP 04) was also consistent with this description. Overall the extent of allophanic soil appears to extend further north than on the published map, and may be in areas which historically were wetlands.

5.2.2 Groundwater

Groundwater was observed by GHD at approximately 2.1 m bgl in one location (B74 TP 02). No other groundwater was encountered during the fieldwork programme. Low levels of water were observed in the eastern end of the drainage gully, near the culvert, however it was unclear if this was water ponding on top of the ground or interacting with groundwater. The HAIL Environmental investigations did not encounter groundwater in any locations.

5.2.3 Visual and olfactory observations

Table 4 below outlines the significant visual and olfactory (odour) field observations during the DSI. A representative photolog from both GHD and HAIL Environmental field investigations are included in Appendix E.

Table 4 Field observations

Location	Location ID	Observations
GHD		
Locations around former nursing home	NUR_TP 01 – TP 04.	Brick, concrete pipe, ceramics
Northern portion of the horticultural area	HT_Comp C1, HT_Comp E2, HT_Comp E4.	Brick, concrete, asphalt
Southern portion of the horticultural area	HT_TP25, TP 27 – TP 28.	Brick, concrete, pipe, ceramics
Underlying Substation 2	SB2_TP03.	Asbestos sheeting
Area around the demolished Ward 2	WD2_TP 03 – 05, TP 07 – TP 09.	Brick, pipe, ceramics
The area around Demolished Structure 2	DS_TP03 – TP 05.	Brick, pipe
The area north of B26	B26_TP 01 – TP 03.	Rubble and other fill material, brick, wire.
Sampling location inside the petrol station	B16_TP01.	Faint hydrocarbon odours were noted during the excavation. Assessment with a photoionisation detector (PID) showed low levels of hydrocarbons (< 1 ppm).
Wards F, G, H	WDF TP 01 – 03, WDG TP 01 – 03, WDH TP 01 – 03	Brick, concrete, asphalt, ceramics
HAIL Environmental		
Paint flakes	B2, B5-B8, B11, B15, B17, B19, B21, B23, B27, B30, B35, B52, B55 and B59	Paint flakes

No other visual or olfactory evidence of contamination was encountered by GHD or HAIL Environmental during the excavations.

5.3 GHD Soil sampling and analysis

Soil and sediment sampling locations and depths were selected as described in the SAP. Samples were collected from the near surface (0 – 0.1 m bgl), a deeper sample (at approximately 0.5 m bgl) and at depth (1.0 m bgl, and deeper in some locations such as around the former UST locations).

Soil sampling locations were excavated with the use of an excavator, hand auger or trowel. A sediment sampler was used to collect sediment samples.

The hand augers, trowels and sludge and sediment sampler were cleaned with a mixture of Decon-90® detergent and water between sampling locations. The sediment sampler used a plastic liner, which was replaced between sampling locations.

Sampling locations within the footprint of buildings were accessed by breaking the foundation slab with an excavator, or via concrete cutting. Samples were collected from these locations by hand auger.

Samples were placed directly into laboratory supplied containers and placed into a chilly bin. Samples were either delivered directly to Hill Laboratories (Hills) in Hamilton or stored in a refrigerator on site before delivery to the laboratory under standard GHD chain of custody protocols. Hills are International Accreditation New Zealand (IANZ) accredited for the analytical methods required in the SAP. Where appropriate, field screening samples were placed into a plastic ziploc bag before headspace analysis was undertaken with a PID.

Sampling was scheduled in general accordance with the sampling programme described in the SAP (excluding the departures from the SAP listed in Section 5.1).

Tabulated results of GHD soil and sediment sampling are included in Appendix F. Full laboratory certificates are included in Appendix G.

Areas with differing sampling methodologies are discussed in Sections 5.3.1 – 5.3.3.

5.3.1 Soil Compositing – Horticultural area

Subsamples were collected during the investigation as outlined in Section 5.3. These were sent to Hills who undertook compositing of between two and four of these subsamples into a composite sample as outlined in Table 5 below and then analysed for metals and pesticides (Organo-chlorine, -nitrogen, and -phosphorus pesticides and acid herbicides) as described in the SAP.

Table 5 Composite samples

Composite samples	Subsamples
HT_COMP A 0.1	HT_COMP A1 0.1, HT_COMP A2 0.1, HT_COMP A3 0.1, HT_COMP A4 0.1
HT_COMP A 0.5	HT_COMP A1 0.5, HT_COMP A2 0.5, HT_COMP A3 0.5, HT_COMP A4 0.5
HT_COMP B 0.1	HT_COMP B1 0.1, HT_COMP B2 0.1, HT_COMP B3 0.1, HT_COMP B4 0.1
HT_COMP B 0.5	HT_COMP B2 0.5, HT_COMP B4 0.5
HT_COMP C 0.1	HT_COMP C2 0.1, HT_COMP C3 0.1, HT_COMP C4 0.1
HT_COMP C 0.5	HT_COMP C1 0.5, HT_COMP C3 0.5, HT_COMP C4 0.5
HT_COMP D 0.1	HT_COMP D1 0,1, HT_COMP D2 0.1, HT_COMP D3 0.1, HT_COMP D4 0.1
HT_COMP D 0.5	HT_COMP D1 0.5, HT_COMP D2 0.5, HT_COMP D3 0.5
HT_COMP E 0.1	HT_COMP E1 0.1, HT_COMP E3 0.1
HT_COMP E 0.5	HT_COMP E1 0.5, HT_COMP E3 0.5, HT_COMP E4 0.5
HT_COMP F 0.1	HT_COMP F1 0.1, HT_COMP F2 0.1, HT_COMP F3 0.1, HT_COMP F4 0.1
HT_COMP F 0.5	HT_COMP F1 0.5, HT_COMP F2 0.5, HT_COMP F4 0.5
HT_COMP G 0.1	HT_COMP G1 0.1, HT_COMP G2 0.1, HT_COMP G3 0.1
HT_COMP G 0.5	HT_COMP G1 0.5, HT_COMP G2 0.5, HT_COMP G3 0.5
HT_COMP H 0.1	HT_COMP H1 0,1, HT_COMP H2 0.1, HT_COMP H3 0,1
HT_COMP H 0.5	HT_COMP H1 0.5, HT_COMP H2 0.5, HT_COMP H3 0.5

5.3.2 TCLP and SPLP analysis

Samples were selected for leachability analysis as described in the SAP. Samples selected for analysis are shown in Table 6. Laboratory certificates are included in Appendix G. Samples for toxic characteristic leaching procedure (TCLP) analysis were selected based on elevated concentrations of contaminants identified in the samples. A representative set of samples from across the Site were selected for synthetic precipitation leachate procedure (SPLP) analysis to assess the potential exposure pathway from soil leaching to groundwater.

Table 6 Leachability analysis schedule

Analysis	Samples
TCLP (metals)	B16_TP06 0.1 B19_TP01 0.1 B26_TP01 0,1 B34_TP05 0.1 B35_HA01 0.1 B66_HA01

Analysis	Samples
	B66_HA02 B66_TP01 0.1 B67_HA02 0.1 DIP_HA02 0.1 DIP_TP03 0.2 DS02_TP03 0.1 DS02_TP03 0.5 DS03_TP03 0.1 HT_TP25 0.2 HT_TP29 0.1 WWTP_TP03 0.1 CHP_TP01 0.2 CHP_TP04 0.2
SPLP (metals)	B16_TP04 0.1 B26_TP02 0.1 B34_TP06 0.1 B35_HA03 0.1 B59_TP04 0.1 B71_TP02 0.1 B73_TP01 0.1 DS02_TP05 0.1 HSP_SED04 0.05 PAV_TP01 0.1 STR_SED03 0.3 HSP_SED01 0.1
TCLP (PAH)	B66_HA02 B67_HA02 0.1 HT_TP30 0.1

5.3.3 PID field screening

PID field screening was undertaken at locations where hydrocarbons were suspected to be present, including the petrol station (B16), the laundry (B74), the store (B65), engineer's office (B66), Shed (B67) and Boiler House (B 68).

B65 TP03 contained low PID readings between 27 – 28 parts per million (ppm). The PID did not detect any hydrocarbons in any of the remaining locations.

5.4 HAIL environmental sampling and analysis

5.4.1 Halo sampling methodology

Halo sampling was completed to assess the extent of lead contamination around site buildings. For consistency with the AECOM investigation, field screening was completed at 0.5, 1.5, 2.5, 3.5 and 6.5 m distances along transects set out perpendicular to each building. Field screening was also completed at 100 mm depth increments at the 0.5 m distance.

Up to two transects were set out at each building, excluding buildings previously assessed during the AECOM investigation. Buildings which were surrounded by impermeable surfacing or constructed from materials highly unlikely to include lead-paint e.g. galvanised steel sheds and units with uPVC cladding were also excluded from the current investigation.

The approximate locations of former buildings including Wards F and H, the Nurses' Home, the chapel (B4) and the sports pavilion (B64) were identified and assessed using the halo sampling methodology.

Field screening was completed using X-ray fluorescence (XRF) in situ: a non-destructive technique used to estimate the content of heavy elements in a sample by measuring the fluorescent (or secondary) X-rays emitted from a sample when it is excited by a primary X-ray source.

An Olympus Vanta VMW XRF instrument was used. Screening was undertaken in situ at beam energies of 15 and 40 keV and a duration of 20 seconds per beam. The user held a current radiation user license and the instrument held a current source license.

As XRF measurements vary to a certain extent depending on the soil matrix and water content, replicate measurements were collected at a minimum rate of 1 in every 10 measurements. XRF data is included as Appendix G.

As XRF is a semi-quantitative technique, matched soil samples were collected at a rate of 1 in every 10 measurements. Soil samples were collected to represent the lower, middle and upper range of lead concentrations identified by the XRF.

Soil samples were collected directly into laboratory-supplied glass jars and submitted to Hills in Hamilton under standard chain of custody documentation for lead analysis. The laboratory report is included as Appendix G.

Soils were logged to New Zealand Geotechnical Society (NZGS) standards. Soils that were predominantly gravel or had obvious contaminant particles (paint flakes) were excluded from halo sampling.

Discussion and interpretation of the halo sampling are included in the **Site Specific Risk Assessment Report.**

5.4.2 Grazing area composite sampling

Open space areas of the Site currently used for grazing were sampled for selected heavy elements and pesticide residues. The open space areas were divided into ten contiguous blocks (COMP01-COMP10) for sampling purposes.

Each block was sampled using the Fonterra DDT soil sampling protocol, which involves a composite formed in the field from at least 30 soil plugs collected in a Z-pattern across the full extent of the block using a 37.5 mm push sampler.

The composite samples were submitted to Hills in Hamilton under standard chain of custody documentation for standard heavy element, organochlorine pesticide (OCP) and pH analysis and, for COMP10 only (due to the proximity to the former dental surgery, B8), mercury. The laboratory report is included in Appendix G.

Discussion and interpretation of the open space composite sampling are included in the **Site Specific Risk Assessment Report.**

5.4.3 Leachability sampling

Leachability sampling was completed on a subset of 'Group A' buildings to assess soil for removal. Group A buildings included those constructed pre-1944 with weatherboard cladding or pre-1974 with iron cladding. Previous halo sampling had identified elevated soil lead concentrations around Group A buildings and the subset included in the leachate sampling were buildings B2, B11 and B59.

For consistency with the previous halo sampling, field screening was completed at 0.5, 1.5, 2.5, 3.5 and 6.5 m distances along a transect set out perpendicular to each building. Field screening was also completed at 100 mm depth increments at the 0.5 m distance.

Field screening was completed as per the previous methodology described in Section 5.4.1 including the collection of duplicate samples. XRF data is included as Appendix G.

Matched soil samples were collected to represent the lower, middle and upper range of lead concentrations identified by the XRF. Soil samples were collected directly into laboratory-supplied glass jars and submitted to Hills in Hamilton under standard chain of custody documentation for total recoverable and TCLP analysis for lead. The TCLP test simulates leaching from soil within a typical municipal landfill in operating phase. The laboratory report is included as Appendix G.

Soils were logged to NZGS standards. Soils that were predominantly gravel or had obvious contaminant particles (paint flakes) were excluded from leachate sampling.

Discussion and interpretation of the leachability sampling are included in the **Site Specific Risk Assessment Report.**

5.5 Field and laboratory quality assurance/quality control

As outlined in the SAP, a robust quality assurance/quality control program is important to demonstrate the appropriateness of the analysis. The GHD QA/QC programme is detailed in Sections 5.5.1 – 5.5.5, with the HAIL Environmental QA/QC programme discussed in Section 5.5.6. Based on the following QA/QC programme documented in Sections 5.5.1 – 5.5.6. GHD considers that the programme has been followed and that the results of the sampling are appropriate for assessment.

As the investigation included fieldwork from both GHD and HAIL Environmental, separate sections in relation to quality assurance/quality control are provided in the following sections.

5.5.1 GHD Field quality control

Soil and sediment sampling were completed under the supervision of a suitably qualified and experienced practitioner holding Certified Environmental Practitioner – Site Contamination specialist certification and with more than 23 years' experience in site contamination.

Calibration certificates for the PID were requested from the rental company. Certificates are included in Appendix G.

As discussed in Section 5.3, Decon90 was used to clean equipment between sampling locations in order to minimise cross contamination. Rinsate blanks were collected by running laboratory supplied deionised water across the surface of the sampling equipment (hand auger, excavator bucket, sediment sampler and hand trowel).

5.5.2 GHD Laboratory quality control

Hills has been selected by GHD to undertake the primary and duplicate analysis for the GHD sampling programme. Hills is accredited by IANZ which represent New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA), this accreditation is internationally recognised. Analyses were performed in accordance with the terms of the accreditation.

5.5.3 GHD Quality control procedures

The quality assurance and quality control (QA/QC) programme undertaken as part of the assessment by GHD included the following:

– Use of appropriately qualified and trained staff
– Preservation of samples with ice during transport from the field to the laboratory
– Transportation of samples to the laboratory with accompanying chain-of-custody documentation
– Compliance with sample holding times – these were:
  - Metals – 6 months
  - VOCs (includes BTEX/TPH) – 14 days
  - SVOCs (includes PAHs) – 14 days until sample extraction, 40 days after sample extraction
– Review of results of field duplicate and triplicate sample results
– All laboratory analysis was undertaken by IANZ accredited laboratories

5.5.4 Compliance with holding times

The majority of samples were analysed within laboratory holding times. Due to issues with laboratory communications there were limited exceptions that were not within holding times for volatile analysis. Despite this, there are additional samples in the same areas as listed below meaning that the data outcomes have not been compromised and there remains sufficient data coverage.

– WWTP_TP01 – 04: No visual or olfactory evidence of impact was observed in any of the test pits and previous sampling by WSP did not detect VOCs in any of the six samples analysed.
– B26 TP03: one location only, there are two other test pits with samples from the same location that were analysed – therefore there is appropriate data coverage.
– B73 TP01: the location of interest comprised a concrete pad with some surface oil staining. Despite several attempts, the concrete pad turned out to be too thick to excavate through. It therefore will have provided a barrier to contaminant migration. An additional sampling location is also present in the same area.
– B74 TP08/09: two locations, however there are another seven locations with samples from the same building that were analysed – therefore there is appropriate data coverage.
– Substations 2 and 4: SB4: two locations involved, however a third test pit from the same location that was analysed. Transformer oils were the contaminant of concern, however no evidence of staining or odours were observed at any of the locations. SB2 – there are no additional samples at this location, however there was no visual or olfactory evidence of hydrocarbons at this location.
– B16: two locations, however there are another six locations with samples from the same building that were analysed – therefore there is appropriate data coverage.
– SCH and TRF: all locations. No potentially asbestos containing materials were observed in the soil profile during sampling in these areas. Contaminants associated with the activity identified in the areas (demolished building – metals and metalloids and asbestos) and sport turf/tennis court (metals and metalloids, persistent pesticides, and asbestos) remain persistent in the environment and are unlikely to volatise or degrade during storage. Therefore results are considered representative of the soil conditions at the Site.

The Site Specific Risk Assessment will include consideration of the above in its interpretation.

5.5.5 GHD Field duplicate and triplicate analysis

5.5.5.1 Duplicate set analysis

Field duplicates were collected during the collection of the primary samples and submitted to the laboratory for analysis for metals, TPH and PAH (as applicable).

5.5.5.2 Relative percentage difference calculations

A quantitative measure of the precision and accuracy of the analyses was made using calculated relative percentage difference (RPD) values between primary samples and duplicate samples (precision) and primary samples and triplicate samples (accuracy). The RPD values were calculated using the following equation.

$$\text{RPD (\%)} = \frac{\langle Co - Cs \rangle}{\left\langle \frac{Co + Cs}{2} \right\rangle} \times 100$$

Where Co = concentration obtained from the original sample

Cs = concentration obtained from the duplicate sample

The usual acceptance criteria within the CLMG (No.5) for RPDs is between 0 and 30% in soils (rising to 50% for trace SVOCs). However, a large percentage differential can occur particularly in soils due to the following:

- A small analytical differential between two samples based on the low levels of detection from the primary and duplicate soil sample; and
- Samples analysed in soil collected from non-homogenous (heterogeneous) soil profile.

The relative percentage difference (RPD) values for the duplicate are included in Appendix H.

RPDs range between 0 – 108%, with most of the results being in the 0 – 30% range. Samples containing outliers (RPDs of > 50%) predominantly had the remainder of their analytes in the 0 – 30% range, with averages of RPDs for these samples all being >30%. Substances at very low concentrations, especially around laboratory limits of detection, will naturally have higher variations associated with them than samples with higher concentrations. This can lead to higher-than-normal RPD values, which can cause the data to look less reliable than it is.

Based on this, the duplicate sampling can be regarded as acceptable.

5.5.5.3 Triplicate blanks analysis

Triplicate samples were collected during the investigation and sent to an alternate IANZ accredited laboratory. Analytica Laboratories (Part of ALS Limited) was selected as an IANZ accredited laboratory, who are IANZ accredited for the required methods (metals, TPH, PAH). RPD were calculated as per the above method. Results are included in Appendix H

RPDs ranged between 0 – 113% with the majority or results in the 0 – 30% range. The triplicate sample collected from the Sediment Sample (HSP 01 0.05/Trip B) contained RPDs ranging between 10 – 113%, with all but one ranging between 10 – 34%. Due to the heterogeneous nature of the matrix of sediment samples, including the presence underwater and potential for higher concentration materials collecting in the sediment, can lead to higher RPDs. Based on this, the triplicate sampling can be regarded as acceptable.

5.5.6 HAIL Environmental quality assurance and control

Halo sampling and open space composite sampling were completed under the supervision of a suitably qualified and experienced practitioner holding Certified Environmental Practitioner – Site Contamination specialist certification and with more than 17 years' experience in site contamination, including extensive experience with XRF.

A blank and reference standards (NIST 2710a and 2711a) were scanned at the beginning of each field session and at each change of battery to confirm the reliability of the XRF measurements.

Following field work, XRF data was processed in order to remove incomplete scans with durations of less than 20 seconds per beam.

As described in Section 5.4.1, replicate measurements were collected at a minimum rate of 1 for every 10 measurements with the XRF, and matched soil samples were collected at a rate of 1 in every 10 measurements.

In order to assess the precision of the XRF data, the RPD between the mean of the replicate measurements and the standard deviation of the replicate measurements was calculated. The data quality objective was an overall RPD of no more than 30 %.

In order to assess the accuracy of the halo sampling data, the XRF data was evaluated against the results of the matched soil samples using linear least squares regression analysis with XRF data as the independent variable and laboratory results as the dependent variable.

Hills is accredited by International Accreditation New Zealand (IANZ) which represent New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA), this accreditation is internationally recognised. Analyses were performed in accordance with the terms of the accreditation.

The quality assurance reports provided by the laboratory indicated that all blank, standard and spike results were within acceptable tolerances.

Overall, the RPD for XRF replicates was 24%, which is within the 30% data quality objective. The average RPD of replicates with lead concentrations less than 2,000 ppm was 16 % and the average RPD of replicates with lead concentrations above 2,000 ppm was 31 %. Higher heterogeneity at high concentrations is consistent with the presence of flakes of lead-based paint in the most contaminated samples, which matches field observations and the conceptual site model.

In order to assess the precision of the XRF data, the RPD between the mean of the replicate measurements and the standard deviation of the replicate measurements was calculated. Overall, the RPD for XRF replicates was 13%, which is within the data quality objective.

Duplicate samples collected during the leachate analysis included the collection of DUP01 which was a field replicate of B2/3 A 0.0; replicates were analysed for total recoverable lead. The mean relative percentage difference for lead was 57 %, which is outside the data quality objective. Heterogeneity at high concentrations has been reported previously in lead samples from around these buildings. It is consistent with the presence of paint flakes in the most contaminated samples, which matches field observations and the conceptual site model.

6. Discussion and conclusions

6.1 Works Completed

Fieldwork at the Site was undertaken in March, June, August and September 2023.

Sampling was undertaken in accordance with the SAP developed by GHD, with some minor departures including change of sampling excavation methodology, inability to collect samples at depth due to hard ground, changes to the compositing schedule to better represent the underlying soil conditions, and additional sampling to assess unanticipated fill material. These departures are considered minor and GHD and HAIL Environmental considers that the sampling programme is sufficient to fulfil the goals of the SAP.

GHD has undertaken soil sampling at 192 locations, and sediment sampling in nine locations. Overall, 329 samples have been analysed from the Site. Samples were collected with a combination of excavator, hand auger, sediment sampler and hand trowel.

HAIL Environmental has undertaken XRF analysis on 98 building transects and individual sampling points, as well as composite sampling of 10 areas of the Site and collection of validation samples for the XRF analysis and TCLP analysis. HAIL Environmental samples were analysed in situ with an XRF, and composite samples were collected with a push sampler and composited on site.

6.2 Field Observations & Laboratory Analysis

Underlying geology generally comprised of clays and sands in the northern part of the Site, and clay in the southwestern portion of the Site. Observed geology is broadly consistent with the published soil and geological information, although Allophanic soils appear to reach further north than in shown in the map (to approximately the drainage gully bisecting the Site mentioned in Section 2.7.5, and incorporating the area around the laundry, boiler, and stores) Soils in the north-west of the Site (near the former Nurses Home) appear to be gley soils.

Groundwater was encountered in one location at a depth of approximately 2.1 m bgl. No other groundwater was encountered.

Demolition rubble containing brick, pipes (metal and ceramic), and other building materials was observed in the footprint of structures formerly located at the Site, including the Former Nurse's Home, the Former Ward 2, And Wards F, G, and H. No ACM pieces were observed in the soil profile. Fill and other demolition rubble was also observed in the horticultural areas, and in the area around Demolished Structure (north of B 26). This material is common on sites where uncontrolled demolition has occurred. Asbestos sheeting was observed in one test pit adjacent to Substation 2. HAIL environmental noted the presence of paint flakes around several buildings.

Screening for volatile compounds with a PID did not detect the presence of soil vapours around the laundry (e.g., associated with dry cleaning chemicals) or the former service station (associated with fuels). Low levels of hydrocarbons were identified with the PID near where the Store Building (B65) fuel bowser was located (with results ranging between 27 – 28 ppm).

Samples were delivered to Hills in Hamilton for analysis of the contaminants of concern identified during the PSI, namely:

- Metals
- TPH
- BTEX
- PAH
- PCB
- VOC
- SVOC
- Pesticides
- Dioxins

– Asbestos

Laboratory reports containing the sampling results are included in this DSI report (see Appendix F).

A QA/QC programme has been undertaken, including field and laboratory procedures and duplicate sampling. Based on the results of this QA/QC sampling are considered to be acceptable and the data set suitable for use.

Discussion of relative soil and sediment concentrations, comparison with criteria or guidelines and their significance are not included in this report but are included in the accompanying **Site Specific Risk Assessment Report**.

7. Limitations

This report: has been prepared by GHD for Toitū Te Whenua - Land Information New Zealand and may only be used and relied on by Toitū Te Whenua - Land Information New Zealand for the purpose agreed between GHD and Toitū Te Whenua - Land Information New Zealand as set out in section 1.4 of this report.

GHD otherwise disclaims responsibility to any person other than Toitū Te Whenua - Land Information New Zealand arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the Statement of Work (N00457) and are subject to the scope limitations set out in the underlying agreement with LINZ.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

This DSI does not include the Existing Disposal Sites to the east of the Wharekōrino Stream which are being investigated by Fraser Thomas Ltd as part of a separate report (Fraser Thomas, 2022).

8. Suitably Qualified and Experienced Practitioner (SQEP) Statement

8.1 GHD SQEP

Mark Ballard is the GHD Technical Director for the project. Mark is a CEnvP-SC (#41175) under the Environment Institute of Australia and New Zealand (EIANZ) Certified Environmental Practitioner programme. He has 23 years' experience working on contaminated land and hydrogeological investigations and acts as the SQEP of this report.

8.2 HAIL Environmental Review

Dr. Dave Bull of HAIL Environmental has acted as a third-party reviewer of this report. Dave is a CEnvP-SC (#40026), as well as a Chartered Chemist. He has a Ph.D in Environmental Science and 25 years of professional experience including 17 years in contaminated land consulting in New Zealand and England.

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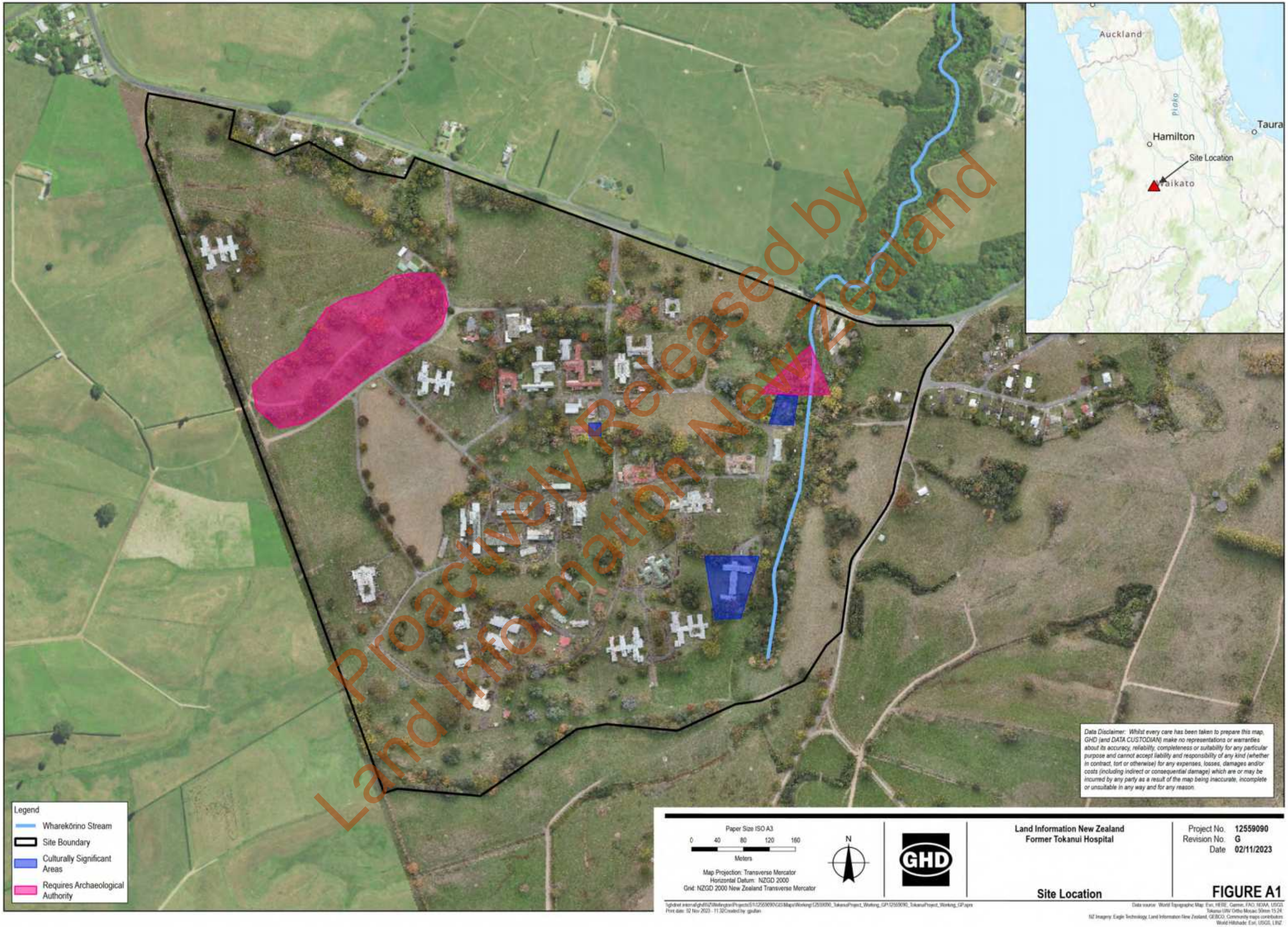
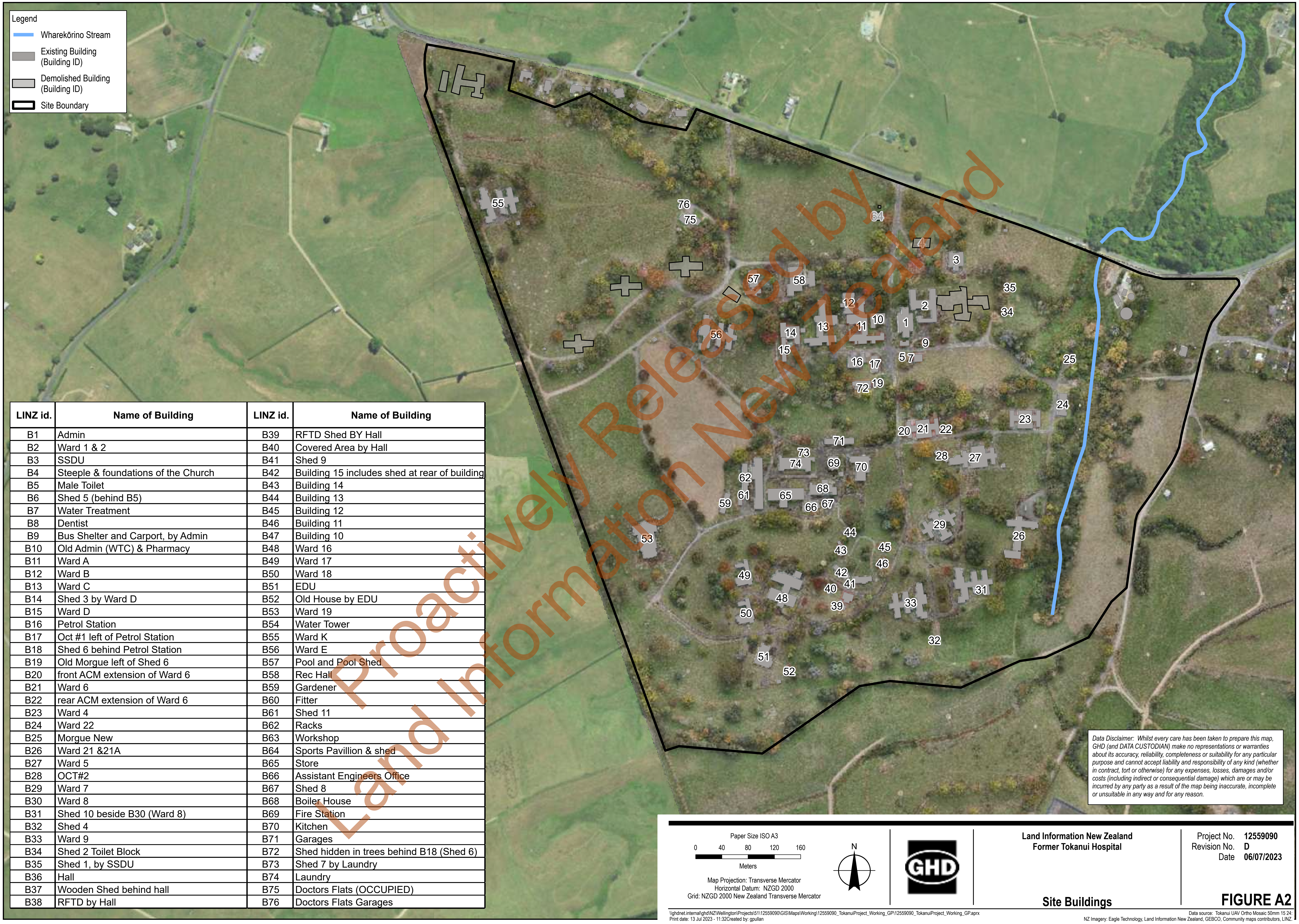
Appendices

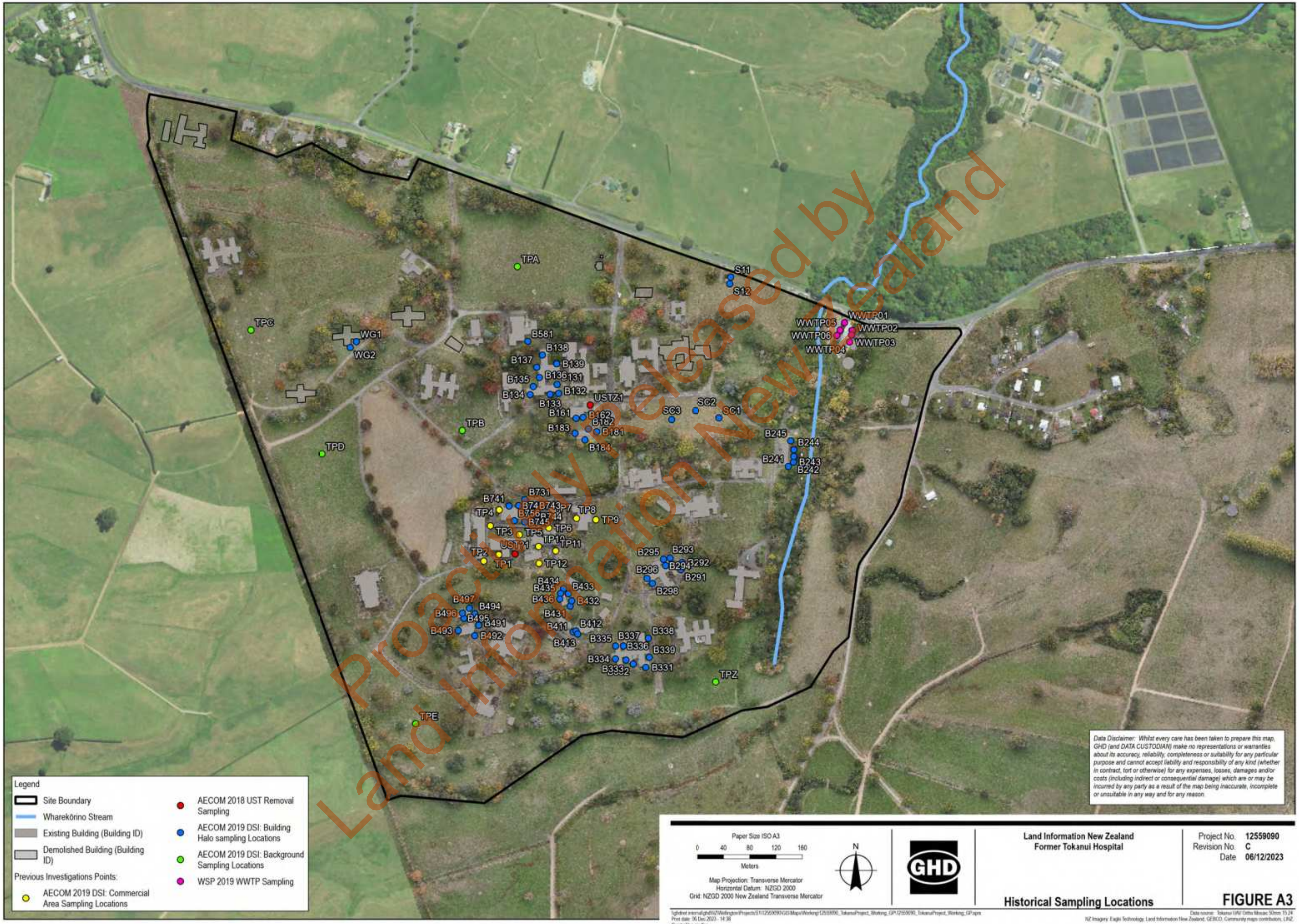
Appendix A

Site maps


Auckland
Hamilton
Taura
Piako
Site Location
Waikato
Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.
Legend
Wharekōrino Stream
Site Boundary
Culturally Significant Areas
Requires Archaeological Authority
Paper Size ISO A3
0 40 80 120 160
Meters
Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator
N
GHD
Land Information New Zealand
Former Tokanui Hospital
Site Location
Project No. 12559090
Revision No. G
Date 02/11/2023
FIGURE A1



LINZ id.	Name of Building	LINZ id.	Name of Building
B1	Admin	B39	RFTD Shed BY Hall
B2	Ward 1 & 2	B40	Covered Area by Hall
B3	SSDU	B41	Shed 9
B4	Steeple & foundations of the Church	B42	Building 15 includes shed at rear of building
B5	Male Toilet	B43	Building 14
B6	Shed 5 (behind B5)	B44	Building 13
B7	Water Treatment	B45	Building 12
B8	Dentist	B46	Building 11
B9	Bus Shelter and Carport, by Admin	B47	Building 10
B10	Old Admin (WTC) & Pharmacy	B48	Ward 16
B11	Ward A	B49	Ward 17
B12	Ward B	B50	Ward 18
B13	Ward C	B51	EDU
B14	Shed 3 by Ward D	B52	Old House by EDU
B15	Ward D	B53	Ward 19
B16	Petrol Station	B54	Water Tower
B17	Oct #1 left of Petrol Station	B55	Ward K
B18	Shed 6 behind Petrol Station	B56	Ward E
B19	Old Morgue left of Shed 6	B57	Pool and Pool Shed
B20	front ACM extension of Ward 6	B58	Rec Hall
B21	Ward 6	B59	Gardener
B22	rear ACM extension of Ward 6	B60	Fitter
B23	Ward 4	B61	Shed 11
B24	Ward 22	B62	Racks
B25	Morgue New	B63	Workshop
B26	Ward 21 &21A	B64	Sports Pavillion & shed
B27	Ward 5	B65	Store
B28	OCT#2	B66	Assistant Engineers Office
B29	Ward 7	B67	Shed 8
B30	Ward 8	B68	Boiler House
B31	Shed 10 beside B30 (Ward 8)	B69	Fire Station
B32	Shed 4	B70	Kitchen
B33	Ward 9	B71	Garages
B34	Shed 2 Toilet Block	B72	Shed hidden in trees behind B18 (Shed 6)
B35	Shed 1, by SSDU	B73	Shed 7 by Laundry
B36	Hall	B74	Laundry
B37	Wooden Shed behind hall	B75	Doctors Flats (OCCUPIED)
B38	RFTD by Hall	B76	Doctors Flats Garages



Land Information New Zealand
Former Tokanui Hospital

Historical Sampling Locations

Project No. 12559090
Revision No. C
Date 06/12/2023

FIGURE A3

Print date: 06 Dec 2023 - 14:38
Created by: gsullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ

Appendix B

Sampling and analysis plan

Former Tokanui Hospital

Sampling and Analysis Plan

Toitū Te Whenua - Land Information New Zealand

07 October 2022

→ **The Power of Commitment**

Project name	LINZ - Former Tokanui Hospital
Document title	Former Tokanui Hospital | Sampling and Analysis Plan
Project number	12559090
File name	2023.08.23_FTPH_SAP_Rev0.docx

Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S4	Rev A	D Jackson	M Ballard		A Gray		07/10/22
S4	Rev B	D Jackson	M Ballard		A Gray		26/05/23
S4	Rev C	D Jackson	M Ballard		A Gray		07/07/23
S4	Rev 0	D Jackson CEnvP #1711	M Ballard CEnvP – SC #41175		A Gray		23/08/23
S4	Rev 1	D Jackson CEnvP #1711	M Ballard CEnvP – SC #41175		A Gray	p.p	06/10/23

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List of abbreviations/glossary

Acronym/term	Description
*Denotes definitions relevant to this report copied from the Tokanui Hospital Deferred Selection Process, Subpart A: Definitions	
ACM	Asbestos containing material, used to refer to material containing asbestos. These are usually building materials such as fibre cement, cladding material or insulation.
BTEX	Benzene, toluene, ethylbenzene and xylenes, a group of contaminants associated with petrol.
CEnvP SC	Certified Environmental Practitioner (Site Contamination), a professional accreditation for environmental practitioners. This accreditation is also a requirement for LINZ suppliers conducting contaminated land investigations.
CLMG	Contaminated Land Management Guidelines, a series of guidelines produced by the Ministry for Environment used for consistency of reporting and investigation of contaminated sites. The NES CS (see below) incorporates six documents by reference which include the CLMG. For example, interpretation of the NES CS requires preliminary site investigations and detailed site investigations to be prepared in accordance with CLMG 1.
CLMG 1*	means the *Contaminated land management guidelines No. 1: reporting on contaminated sites in New Zealand*, Ministry for the Environment, revised edition 2011.
CLMG 2*	means the *Contaminated land management guidelines No. 2: hierarchy and application in New Zealand of environmental guideline values*, Ministry for the Environment, revised edition 2011.
CLMG 5	means *Contaminated land management guidelines No. 5 – Site Investigation and Analysis of Soils, Ministry for the Environment, revised edition 2011.*
CSM	Conceptual site model, a system of identifying contaminant sources, routes of potential exposure, and receptors who may be impacted by contamination. This model is used as the basis of investigation and is an iterative process that is updated as new information is gathered.
Deed of Settlement (the Deed)	The Ngāti Maniapoto Deed of Settlement signed by Maniapoto and the Crown, which was signed on 11 November 2021 and given effect by the Maniapoto Settlement Claims Act 2022, which came into force on 28 September 2022.
Demolition and remediation works*	means the physical works required to carry out the demolition and remediation of each Tokanui Hospital deferred selection property (excluding any new disposal site or existing disposal site on that property) as described in paragraph 9.16.
DSI	Detailed site investigation, as defined in the NES CS; "*a detailed site investigation involves intrusive techniques to collect field data and soil samples for analytical testing to determine concentrations of contaminants of concern.*" The investigation must be done in accordance with CLMG 5 and reported in accordance with CLMG 1 (the DSI report is specifically defined in the Deed, see below).
Detailed Site Investigation report*	means a detailed site investigation report as described in the CLMG 1.
Existing Disposal Consents*	Means the land use resource consents numbered 102269.01.01, 102270.01.01 and 102271.01.01.
Existing Disposal Sites*	The two existing sites (as described in the existing disposal consents) located on one of the Tokanui Hospital deferred selection properties that the Crown historically used to dispose of waste; indicated as 'Existing disposal sites' on the plan (subject to survey) 'Tokanui Hospital deferred selection properties' in part 7 of the attachments.
HAIL	Hazardous activities and industries list, as defined in Regulation 3 of the NES CS as, "*The current edition of the Hazardous Activities and Industries List, Wellington, Ministry for Environment*." The HAIL is a list of 53 activities and industries that are considered likely to cause land contamination through the use, storage or disposal of hazardous substances.
Managed Remediation Standard*	Means an applicable standard or standards for recreational use chosen in accordance with CLMG 2, or derived through a site-specific risk assessment, but where use may be subject to controls (for example, in relation to excavating, erecting buildings or domestic gardening).
NES CS	Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, a set of nationally consistent regulations for the resource consenting of contaminated sites.

Acronym/term	Description
OCP	Organochlorine pesticides, a group of pesticides.
PAH	Polycyclic aromatic hydrocarbons, a group of contaminants associated with diesel fuel and burnt material
PCB	Polychlorinated biphenyls, a group of contaminants associated with electrical transformers.
PID	Photo-ionisation detector, a measurement tool for field screening soil for volatile vapours such as those associated with petrol or solvents.
PSI	Preliminary site investigation, as defined in Regulation 3 of the NES CS as an investigation done by a SQEP, is reported on in accordance with CLMG 1 and results in a report that is certified by the practitioner. The NES CS also states, "*the main objectives of the PSI are to gather information about a piece of land to assess the suitability of the land for its current or intended use, and to design a detailed site investigation (if required).*"
Rural residential remediation standard*	Means an applicable standard or standards for rural residential use chosen in accordance with CLMG 2, or derived through a site-specific risk assessment.
SAP	Sampling and analysis plan, a plan setting out the proposed sampling programme for an environmental investigation and completed in accordance with CLMG 1 and CLMG 5.
Settlement Date	Is defined as Section 12 of the Maniapoto Settlement Claims Act 2022, being 24 November 2022.
Site-specific risk assessment*	Means the derivation of remedial criteria based on a conceptual site model in a manner generally consistent with CLMG 1.
SPLP	Synthetic Precipitation Leaching Procedure, a testing method to assess the leaching of contaminants from soils.
SQEP	Suitably Qualified and Experienced Practitioner. This is not defined within the NES CS regulations, but in the *Users Guide, National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (April 2012)* which provides guidance on determining who is a SQEP. This is detailed in Section 2.1.1 of the NES CS Users Guide.
Substations vs Transformers	The following has been used to avoid confusion as the LINZ Building Registry refers to substations and the HAIL categories mention transformers. Transformers step up or down voltage and this occurs at a substation. At Tokanui there are 8 separate substations with transformers within them. All associated locations in the SAP are therefore called Substations and have been numbered SB1-SB8.
SVOC	Semi-volatile organic compounds, a sub group of volatile organic compounds (VOCs) which are commonly associated with industrial processes.
TCLP	Toxicity Characteristic Leaching Procedure, a testing method to assess the leaching contaminants in soil from a landfill.
THDSP	Tokanui Hospital Deferred Selection Process, a standalone process for the demolition and remediation of the Tokanui Hospital set out in Part 9 of the Deed of Settlement: Property Redress Schedule.
TPH	Total petroleum hydrocarbons, a screening analysis used to assess the presence of hydrocarbons in soil.
USEPA	United States Environmental Protection Agency, the United States environmental protection regulator which is referenced in some New Zealand contaminated land guidance documents.
VOC	Volatile organic compounds, a group of volatile contaminants that have high vapour pressure and low water solubility. They are typically associated with fuels, solvents and cleaning products.
WDC	Waipa District Council, the district council the Site is located in.
WRC	Waikato Regional Council, the regional council the Site is located in.
WWTP	Waste water treatment plant
XRF	X-Ray Fluorescence detector, a method for field screening soil for metal concentrations.

1. Introduction

1.1 Background: Ngati Maniapoto Deed of Settlement and the Tokanui Deferred Selection Process

The former Tokanui Hospital (the Site) is managed by Toitū Te Whenua/Land Information New Zealand (LINZ) on behalf of the Crown in the Treaty Settlements Landbank. Land held in the Landbank is Crown land which has been declared surplus and can be used as cultural or commercial redress in Tiriti o Waitangi Settlement claims. The Tokanui Hospital is a deferred selection property in the Ngāti Maniapoto Deed of Settlement (the Deed) and forms part of the Maniapoto Settlement Claims Act 2022, which gives effect to the Deed. The Tokanui situation is unique as no other property included in a Treaty settlement has required demolition and remediation on this scale or required a commitment to undertake remediation in a deed of settlement. Under the Deed, Maniapoto and the Crown have agreed to a standalone process within the Property Redress Schedule, Part 9: Tokanui Hospital Deferred Selection Process (THDSP), for the transfer of the Site which details specific requirements for the demolition and remediation of the Site before it is available for transfer to Maniapoto. LINZ is the Government agency responsible for delivering this project. For detailed project background and context, please refer to the Project Background Document (Toitū Te Whenua Land Information New Zealand, 2021).

Subpart B of the THDSP out sets out agreed standards for the demolition and remediation of the Site. While Opus Limited (Opus) and AECOM Limited (AECOM) have undertaken several previous investigations at the Site, which are further detailed in Section 3 of this report, the Crown and Maniapoto have acknowledged at the date of Deed signing, there was not enough information available for the Crown to commit to a particular remediation standard (paragraph 9.2 of the Deed). LINZ have therefore engaged GHD Limited (GHD) and HAIL Environmental Limited (HAIL Environmental) to undertake contaminated land investigations in accordance with the Ministry for the Environment's (MfE) Contaminated Land Management Guidelines (CLMG) to enable LINZ to meet the Crown's obligations in regard to the remediation of the Site as set out in the Remediation Standards, described in detail in Section 5. The GHD and HAIL Environmental works will support the demolition and remediation of the Site as part of the Former Tokanui Psychiatric Hospital Demolition and Remediation Project (the Project). The Site layout and key features are shown in Figure A1 in Appendix A.

In accordance with the Deed requirements, demolition and removal of the Site buildings and some of the Site infrastructure will take place, leaving the Site in a grassed state, remediated to a rural residential or managed land use standard. A future change in land use from commercial/industrial (former hospital use) to rural residential may occur. LINZ will obtain the necessary resource consents under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES CS) for the demolition and remediation activities and potentially for the land use change to a grassed site. Changes in land use as part of future redevelopment will require separate consenting and are not part of the Crown responsibility, that will be the responsibility of the future land owners.

1.2 Background: Investigation Timeline to Date

A number of previous investigations dating back to 2015 have been completed to gain an understanding of the Site to inform detailed demolition and remediation options and associated costings. The investigations from 2015 are summarised below, with further detail on reports relevant to the design of this Sampling and Analysis Plan provided in Section 3.

In 2015, the Ministry of Justice (MoJ) commissioned Opus to prepare a Demolition Plan for the safe and efficient removal of all subterranean infrastructure and services, roadways and terrestrial infrastructure, buildings and hardstandings from the Site, so that it can be returned to pasture. Opus' brief was to provide MoJ a comprehensive Demolition Plan. The Opus Preliminary Site Inspection (the Opus PSI) report comprised an initial contamination assessment of the Site and potential effects on the proposed Site use and was intended to be included as part of the Demolition Plan. The Opus PSI report highlighted areas for which further work was required, in addition to identifying parts of the Site that required a Detailed Site Investigation (DSI).

After the Opus PSI was completed, LINZ took over the responsibility of the Site from MoJ, and therefore the management of any demolition and remedial works. Over the course of 2018 – 2019, LINZ commissioned several reports from AECOM.

In 2018, AECOM completed a gap assessment of the Opus PSI which included review of the Opus PSI and identification of any gaps in the process that was completed which may have led to potentially contaminating historical activities and/or features, not being identified. In 2018 AECOM also completed an onsite disposal feasibility study. The options report identified two key variables affecting the final level of demolition:

– whether demolition waste from the site will be transported offsite or contained in a purpose-built landfill onsite; or,
– whether horizontal infrastructure, such as roading and below ground services, are removed or partially retained on site.

In 2019, AECOM completed a DSI of the Site (the AECOM DSI). The purpose of the AECOM DSI was to assess the soil contaminant conditions at the Site and the associated risk to human health and the environment, for a proposed future agricultural land use. AECOM stated that given its size, it was not practical to investigate all areas of the Site, therefore the approach taken was to investigate soils associated with selected areas / features, which collectively are representative of the wider Site.

The AECOM DSI included a conceptual site model (CSM) which considered source, pathway and receptor linkages, allowing an assessment of risk to human health and the environment. AECOM concluded that the CSM showed some complete and potentially complete source, pathway, receptor linkages, and that the soil contaminant conditions at the Site may pose some risk to human health and the environment if no soil remediation is completed.

1.3 GHD and HAIL Investigations

GHD and HAIL Environmental Limited have been engaged to undertake contaminated land investigations in accordance with the CLMG to enable LINZ to meet the Crown's obligations regarding the remediation of the Site.

The investigations comprise iterative steps as per MfE's CLMG. These steps are summarised in Figure 1 with more detailed descriptions in the remainder of this section.

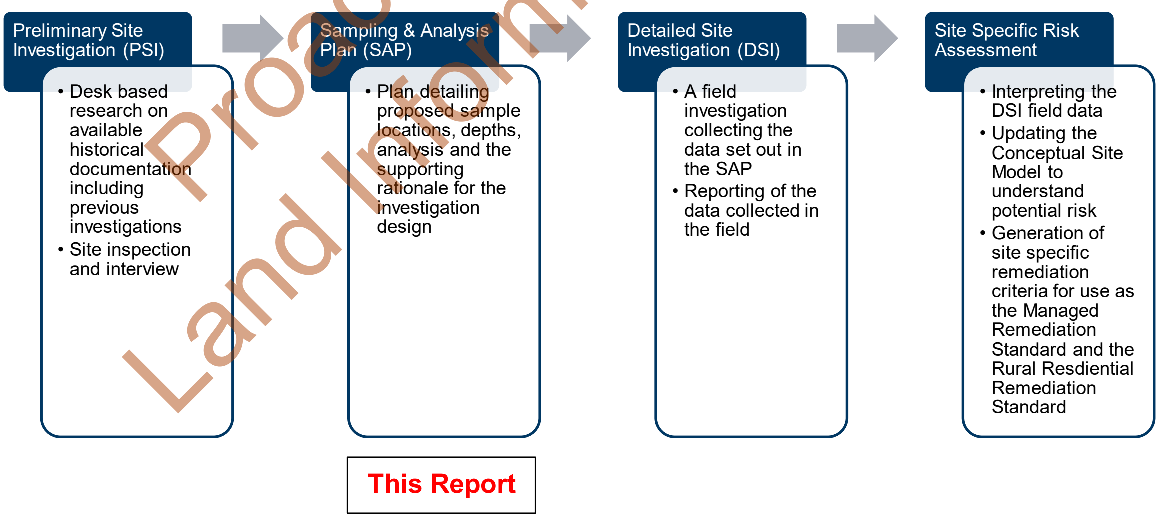


Figure 1 ***Tokanui Site Investigation Process***

The first step was the completion of a PSI encompassing the entire Site. The PSI (GHD, 2022) comprised:

– A thorough site walk over
– An interview with a former hospital staff member
– Research of council and other publicly available records
– Review of existing reports to identify and close data gaps
– Identification of historical activities that have the potential to have caused contamination that are listed on the MfE HAIL.
– The refinement of the conceptual site model developed by AECOM (2019) to reflect findings from the PSI and inform this Sampling and Analysis Plan (SAP).

In order to understand the degree and extent of contamination that may have occurred an intrusive investigation including field screening and laboratory analysis is required across the Site as part of a DSI. Such investigations typically involve sampling different environmental media (e.g. soil and sediment) via a number of sampling techniques and the use of a variety of laboratory chemical analysis. CLMG No.5: Site Investigation and Analysis of Soils (Ministry for the Environment, 2021) recommends that a SAP be prepared as part of the investigation to provide the methodology for addressing the investigation objectives and data gaps identified during the PSI. This document forms the SAP for the upcoming DSI.

The DSI data will be used to undertake a site-specific risk assessment in order to generate site specific remediation criteria for use as the Managed Remediation Standard and/or Rural Residential Remediation Standard referred to in the Deed.

It should be noted that the GHD / HAIL Environmental Detailed Site Investigation will not include an intrusive investigation into the existing disposal sites to the east of the Wharekōrino Stream, which has been investigated separately by Fraser Thomas Ltd (FTL).

1.4 Purpose

The purpose of this document is to provide an SAP with an investigation methodology for the DSI by addressing the data gaps identified during the PSI. The SAP has been produced in accordance with the CLMG as per the requirements of the Deed.

A DSI is not only required prior to commencing any demolition and remediation work (as per paragraph 9.4 of the THDSP), it may also required under the NES CS to support the application(s) for resource consent for ground disturbance activities associated with the demolition and remediation works as set out in the Subpart B of the THDSP. Due to the scale of the Site and the number of potential contaminant source(s), LINZ has engaged GHD to produce this SAP to describe and plan how the sampling objectives will be achieved.

1.5 Objectives

The main objective of this SAP is to ensure LINZ are able to meet the Crown's obligations with regard to the remediation standards, by ensuring the data collected as part of the DSI is undertaken to provide statistically reliable data about the nature, distribution and concentration of contaminants, sufficient to complete a robust risk assessment.

The objectives of this SAP are therefore to:

– Ensure the DSI has been adequately scoped to address the remaining uncertainties or data gaps identified in the PSI.
– Detail the analytes to be investigated, field techniques, analytical techniques and methods, statistical methods to enable the development of site-specific remedial standards.
– Ensure the DSI will be fit for purpose to support resource consent application(s) associated with the demolition and remediation works, and for land use change to a grassed site with no buildings.
– Ensure the DSI will provide the statistical level of confidence required to inform the remedial strategy and Assessment of Remedial Options for future decision making regarding remedial and/or management approaches for soils that are compliant with paragraph 9.3 of the THDSP.

2. Site Description

2.1 Site Location Details

The Site is located at 149 Te Mawhai Road, Tokanui, Waikato, approximately 6.2 kilometres south of Te Awamutu. A map of the Site is included as Figure A1, in Appendix A, with information about the Site shown in Table 1, below. A map of Site buildings and list of building names is included as Figure A2, in Appendix A.

The information in the remainder of Section 2 is summarised from the GHD PSI undertaken in 2022 (GHD, 2022).

Table 1 Site Details

Attribute	Details
Address	149 Te Mawhai Road, Tokanui. Waikato
Legal description	Section 1, SO 44852
Area	79.0175 Hectares
Current property owner	LINZ, on behalf of the New Zealand Government.
Regional council	Waikato Regional Council
District council	Waipā District Council
Zoning	Rural, under the Waipā District Council Plan
Current site use	Vacant buildings and other structures associated with the former hospital; grassed areas of the Site are leased for stock grazing.
Proposed future site use	This is beyond the scope of the Crown. As per the THDSP, the Crown will, in carrying out the demolition and remediation works (all section numbers below relate to sections of the Deed): - comply with all necessary consents and approvals for the demolition and remediation works (9.16.1); - Remediate the land in accordance with the applicable remediation standard as referred to in paragraphs 9.3 and 9.7 (9.16.2); - remove all vertical building structures from the property (9.16.3.); - determine the extent of horizontal infrastructure to be removed, subject to Ministerial decisions described in 9.9 (9.16.4); and, - ensure that, where the land has been damaged by the impact of the demolition and remediation works, it is left free of building debris, and is stabilised by grassing (9.16.5.) Future land use beyond the demolition and remediation of the Site is unknown but likely to be a rural residential use (e.g. agricultural land with farm houses).

2.2 Current Site Layout

The site is predominantly grassed, with structures, and asphalted roads central areas. There are small groups of trees along the roadways and amongst the structures. The area is gently undulating, with elevations ranging between 22 and 45 metres above sea level. Access to the Site is via the main access gate on Te Mawhai Road.

2.3 Surrounding Land Uses

The surrounding land uses comprise rural residential properties to the north and east. Pastoral farmland is present to the south, east and west. The land to the east also contains the AgResearch Tokanui Dairy Research and the Tokanui Hospital cemetery.

2.4 Environmental Setting

2.4.1 Soils and Geology

The two main soil types underlying the Site are Orthic Gley soils (reduced light grey subsoils with mottles, strongly affected by waterlogging, underlying most of the area) and Orthic Allophanic (low density, stiff jelly-like minerals which are dominated by allophane with imogolite and ferrihydrite, mostly the south-western portion) (Manaaki Whenua Landcare Research, 2022).

The GNS Science 1:250,000 map (Edbrooke, 2005) shows two main geological units underlying the Site. The area sits within the Hamilton Basin, a thick alluvial deposit comprised of typically unconsolidated alluvial sediments and distal ignimbrite deposits of the Tauranga group. Basement rock consists of faulted greywacke (indurated sandstone, siltstone, and mudstone).

Observed geology during intrusive investigations by AECOM broadly confirm the published geology underlying the Site is predominantly silts and clays (AECOM, 2019).

2.4.2 Hydrogeology

The Site is located in the southern end of the Hamilton Basin above the Waipā Aquifer. The Waipā Aquifer is considered to be a regional aquifer, comprising multiple units of undifferentiated unconfined and leaky aquifers. This makes it difficult to reliably place high yielding water bores in the aquifer (Schofield, 1972).

A borehole search was undertaken by consulting the Wells Aotearoa New Zealand website, which identified a total of six bores within 500 metres of the Site. Water level in these boreholes ranged between 7.5 and 33.2 metres below ground level (m bgl). The Wells Aotearoa New Zealand website states that none of these wells are used to supply drinking water (Te Uru Kahika, 2022).

Groundwater observations made during the AECOM DSI investigation ranged between 1.3 and 2.4 m bgl. These measurements were from test pits within the commercial area of the Site and were collected between late May and September, implying that these are likely to be high winter groundwater levels (AECOM, 2019).

Annual monitoring of bores is undertaken as part of a resource consent associated with the former disposal sites on the east side of the Wharekōrino Stream and reported on by WSP. Two bores known as P2 and P7 are sampled with groundwater levels measured. The WSP annual reports from 2020 and 2021 (WSP, 2020) (WSP, 2021) both indicate that the P2 and P7 bores were dry. Groundwater samples were collected from P2 and sent for laboratory analysis in both 2018 and 2019 (WSP, 2018) (WSP, 2019a), but no groundwater level was recorded in either of the reports. The AECOM 2019 data is therefore the only groundwater level data within the Site.

No assessment or investigation to confirm groundwater flow direction has been undertaken to date; however, the regional groundwater is inferred to flow in a general northerly direction, towards the Pūniu River. Localised groundwater is inferred to flow to the east towards the Wharekōrino Stream, which transects the Site.

2.4.3 Hydrology

The nearest body of surface water is the Wharekōrino Stream, which runs south to north in the eastern portion of the Site, ultimately discharging into the Pūniu River, 600 metres to the north.

Drainage ditches across the Site run into a main west to east gully which leads to the Wharekōrino Stream. Piped stormwater at the Hospital is discharged to a series of catch pits and soakaways located around the Site. Historically drainage was a frequent issue at the Hospital, and wetlands were formally present before the development of the site (GHD, 2022). The *Tokanui Psychiatric Hospital, site investigation: archaeological assessment* (CFG Heritage, 2023) stated the following regarding wetlands and swamps around the Site.

"According to historical accounts, the vegetation of the flat land immediately surrounding the Pūniu River in the vicinity of the project area appears to have consisted of native shrubs, flax and pockets of swampland in the 19th century, which was drained after the land confiscations of the New Zealand Wars (Waikato Times, 15 January 1878: 3). The hospital site is at the junction of three waterways, noted in ML 6748 drawn in 1889 as Makaroa, Tarutahi Swamp, and Wharekorino Swamp."

The Manaaki Whenua/Landcare Research website (**https://ourenvironment.scinfo.org.nz/maps-and-tools/app/Wetlands/wetlands_historic**) contains a map of the historical wetlands at the Site. As shown in Figure 2 these areas (shaded green) cover the majority of the present-day Site[1] .

Figure 2 *Historical Wetland Locations*

[1] credit to Landcare Research New Zealand Limited for use of the map under Creative Commons Attribution 3.0 New Zealand License

3. Previous Investigations

Several previous investigations and reports have been undertaken to support the project and inform this investigation. These include:

– Environmental investigations at the Site
– Assessments of the building structures and material
– Stream and groundwater monitoring
– Cultural and archaeological assessments

These are discussed in Sections 3.1 (Previous Environmental Investigations) and 3.2 (Other Relevant Reports) below.

3.1 Previous Environmental Investigations

The Crown has engaged various environmental consultants as part of previous project feasibility work and scoping dating back to 2015. GHD has assessed the following reports (listed from oldest to most recent) as part of the development of the PSI and this SAP document.

- *Tokanui Psychiatric Hospital: Site Scoping, Contamination Preliminary Site Inspection Report* (Opus, 2015).
- *Underground Petroleum Storage System Decommissioning at Tokanui Hospital* (AECOM, 2018a).
- *PSI Gap Assessment: Tokanui Hospital* (AECOM, 2018b).
- *Underground Petroleum Storage System Removal at The Former Tokanui Hospital* (AECOM, 2018c).
- *Former Tokanui Psychiatric Hospital – AST Removal and Mechanical Pit Dewatering* (AECOM, 2018d).
- *Tokanui Hospital: Detailed Site Investigation* (draft) (AECOM, 2019).
- *Tokanui Village And Hospital Waste-Water Upgrade Detailed Site Investigation* (WSP, 2019b).

The following sections summarise the main findings of each investigation and how this information has been used in designing the SAP. Data gaps that have been identified are collated in Section 4.3.

3.1.1 Tokanui Psychiatric Hospital: Site Scoping, Contamination Preliminary Site Inspection Report (Opus, 2015)

A PSI report was undertaken by Opus for the MoJ as part of preparing a Demolition Plan for the Site. The Opus PSI described an initial contamination assessment of the Site and potential effects on the proposed land use, which at that point in time was agricultural. The PSI included a review of the Site's history to understand likely HAIL activities at the Site, to identify key 'Areas of Concern' and likely 'Contaminants of Potential Concern' arising from the identified HAIL activities. The investigation also included the development of a CSM.

The Opus PSI presented a list of HAIL activities. These HAIL activities were used as a starting point in planning the proposed DSI sampling locations within this SAP. The identified HAIL locations from the Opus PSI were compared with the later AECOM investigations where samples were collected. This enabled an understanding of which HAIL activities had been investigated by AECOM and what gaps remained that required further investigation.

3.1.2 Underground Petroleum Storage System Decommissioning at Tokanui Hospital (AECOM, 2018a)

Two 10,000 litre steel underground storage tanks (UST) (one petrol and one diesel) and associated infrastructure (e.g. fuel lines) were removed from the former petrol station (Building B16) between 26th and 30th July 2018. The work was commissioned by Z Energy Ltd as owner of the tanks.

Soil samples were collected during the removal and were analysed for Total Petroleum Hydrocarbons (TPH) and benzene, toluene, ethyl benzene and xylene (BTEX). None of the soil samples exceeded soil acceptance criteria for commercial/industrial and agricultural land use when compared to the relevant guideline values. Due to the distance of surface water bodies from the UST removal area, hydrocarbon soil impacts were not assessed against soil acceptance criteria for protection of groundwater quality.

The sampling undertaken around the area of the former fuel tanks and the associated underground petroleum storage system (UPSS) is considered sufficient to have characterised this location. The former petrol station also had an associated vehicle workshop. The vehicle workshop has not been previously investigated and this SAP proposes to collect samples from both around workshop building and beneath the floor of the former workshop.

3.1.3 PSI Gap Assessment: Tokanui Hospital (AECOM, 2018b)

The purpose of this AECOM report was to review the Opus PSI (2015) and identify any gaps in the process in which the investigation was undertaken that may have led to potentially contaminating activities or other relevant Site features not being identified, and, to make recommendations on how these gaps could be filled. The report was not intended to fill the identified data gaps.

The report recommended a review of historical aerial photography, a more thorough review of WDC and WRC property files, and that interviews with former 3.2site workers be undertaken. AECOM additionally recommended that a full site inventory, including a building-by-building assessment of potentially contaminating hazardous features or activities should also be compiled.

AECOM suggested that the findings of these additional tasks could be compiled as an addendum to the Opus PSI and should include an updated CSM as well as recommendations for further investigation to assess the Site against the rural land use scenario under the NES CS.

A site walkover was undertaken by AECOM which identified updates to the previous Opus PSI in relation to chemical storage at the Site. GHD has used this additional information to add proposed sampling locations to this SAP (these are the presence of previously unrecorded chemical storage in the swimming pool area, water treatment plant and at Substation No.7).

3.1.4 Underground Petroleum Storage System Removal at the former Tokanui Hospital (AECOM, 2018c)

A 5,000 litre steel UST and associated fuel lines were removed from the southern side of the Stores (Building B65). Some infrastructure, including part of a vent line were left in situ. Hydrocarbon odours were noted during the removal of the tank. The removal was undertaken on behalf of the UPSS owners, Z Energy. Sampling occurred after the removal of a 5,000 litre steel UST on 30th and 31st July 2018.

Soil samples were collected during the removal and analysed for metals, TPH and, BTEX. Results of the analysis were below acceptance criteria for a residential/agricultural land use and for the protection of maintenance / excavation workers.

AECOM did not consider that the underlying groundwater was sensitive and therefore hydrocarbon results were not assessed against soil acceptance criteria for protection of groundwater quality. Residual hydrocarbon impacts comprising visual staining and volatile vapours were observed in the soil which remains on site.

Although the soil results complied with the acceptance criteria for residential/agricultural land use, not all parts of the UPSS were able to be tested. Part of the vent system against the side of the building was not removed, nor was a fuel bowser that was located under a canopy area. This SAP proposes sampling of the previously uninvestigated areas of the UPSS and those areas of vapours noted at the time of the former tank removal.

3.1.5 Former Tokanui Psychiatric Hospital – AST Removal and Mechanical Pit Dewatering (AECOM, 2018d)

This report documented:

– the emptying and removal of two above ground storage tanks of unknown volume adjacent to the former Boiler House (building B68).
– emptying and removing four waste oil drums and containers outside the former Assistant Engineer's Office (building B66) and within the former petrol station (building B16).
– Dewatering the vehicle inspection pit in the former petrol station.

A total of 16,000 litres of waste oil and water was removed from the ASTs, waste oil drums and vehicle inspection pit. This volume also includes the dewatering of the UST, which was subsequently removed from Site. These activities were undertaken on 30th and 31st July 2018.

No sampling or other analysis of soil or water were undertaken as part of the 2018 investigation.

These areas were identified as data gaps and the area of the former ASTs and the vehicle inspection pit were added to the soil sampling schedule in this SAP. The area of the drum removal outside B66 was also inspected during the PSI walkover. It was found to contain some oil filters and evidence of localised oil-stained ground. This area was also added to proposed soil sampling schedule in this SAP.

3.1.6 Tokanui Hospital: Detailed Site Investigation (draft, AECOM 2019)

AECOM undertook an investigation of the soils associated with selected features of the Site and used the results as being representative sample of the whole area. These areas comprised four categories:

– Sampling around the commercial area, where most of the HAIL activities identified by AECOM occurred. This sampling was not targeted to assess the HAIL activities but to assess the general conditions of the area.
– The halos of selected buildings, which was used to represent the potential impact from groups of buildings.
– The green spaces around the site currently used for grazing. Several of the locations targeted coincided with the locations which were then being assessed for a potential onsite waste disposal facility.
– A low-lying stormwater collection area.

Building halos showed exceedances of background concentrations of lead, and almost all building types showed exceedances of adopted human health guidelines for lead or asbestos, with painted cladding, painted iron roofs and absent or damaged guttering showing the highest impacts in the building halos.

Test pitting in the green space of the Site showed exceedances of background concentrations for several metals, and an exceedance of the adopted human health guidelines for copper, and asbestos.

Test pitting in the commercial area of the Site showed exceedances of background concentrations for several metals, and an exceedance of the adopted human health guidelines for arsenic, chromium, copper, and nickel.

Test pitting in the stormwater collection area of the Site showed exceedances of background concentrations for several metals, and an exceedance of the adopted human health guidelines for lead and copper.

The report provided a broad indication of the levels of contaminants of concern in a number of HAIL activity areas within the Site. The AECOM DSI comprises the largest previous investigation undertaken at the Site. GHD has used this information to understand the data gaps in two main categories and add sufficient sampling in this SAP to close these gaps. The two categories are:

1. *Areas of the Site with HAIL activities that have been sampled, but not all contaminants of concern had been analysed in the samples collected* – for example, soil samples around the gardeners shed had metals and asbestos testing completed as part of previous building halo testing, however the building was known to store pesticides and these had not been analysed in previous testing.
2. *Areas of the Site with newly identified HAIL activities that have not been tested* – for example, an area of historical horticultural use in the north of the site, a former bowling green, two former morgues and a former dentist surgery.

3.1.7 Tokanui Village and Hospital Waste-Water Upgrade, Detailed Site Investigation, (WSP 2019)

WSP undertook an investigation of the Hospital WWTP ahead of decommissioning of the WWTP. The WWTP is geographically separate from the main hospital site, with the two areas being separated by the Wharekōrino Stream. The former hospital area lies to the west of the stream and the WWTP on the east of the stream.

A total of 12 samples were collected from six locations in the northern half of the WWTP facility where the filter beds were formerly located. Samples were analysed for metals, volatile organic compounds (VOCs), and asbestos. Metal results were above background concentrations, but below applicable human health guideline values. VOCs and asbestos were not detected in any of the samples.

The southern portion of the WWTP was not part of the scope of the WSP investigation but has been identified as a data gap. Sampling of this southern area is included in this SAP.

GHD Preliminary Site Investigation (2022)

GHD reviewed the findings of the investigations outlined in Section 3.1, to confirm whether an activity or industry on the HAIL has been, is, or is more likely than not to have been undertaken withing the Site boundary. In addition to the HAIL activities identified by the previous investigations, we identified additional areas which are suspected to have been subject to HAIL activities, including a former horticulture area, a potential historical livestock dip, a former bowling green, former morgues and a former dentist surgery. In total, 42 HAIL sites were identified across the Site.

Table 2, below, outlines the HAIL activities presumed and confirmed to have occurred at the Site and the contaminants of concern (CoC) associated with these activities (Ministry for the Environment, 2023). These have been grouped by HAIL category.

The data gathered from the PSI has been added to that from previous reports to identify unresolved or new data gaps for resolution within the DSI. These gaps are listed in Section 4.3 with the proposed sampling rationale and detailed in Sections 5 and 6.

Table 2 HAIL activities associated contaminants of concern

HAIL activity (Source)	HAIL category	Contaminants of Concern
A – Chemical manufacture, application and bulk storage		
Water treatment plant	A2 – Chemical formulation or bulk storage	Asbestos and metals.
Laundry	A5 – Dry cleaning plants including dry-cleaning premises or the bulk storage of dry-cleaning solvents	Volatile hydrocarbons including chlorinated solvents
Livestock Dip	A8 – Livestock dip	Metals and pesticides/insecticides
Market Gardens / Horticulture	A10 – Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds	Metals, a wide range of organic compounds, organochlorines, organonitrogens, organophosphates
Sports turfs		
Swimming pool – chemical store	A17 – Storage tanks or drums for chemicals or liquid waste	Metals, semi-volatile compounds
Water treatment plant		Metals, asbestos
Morgues		Formaldehyde (likely to have degraded given the time elapsed), mercury, lead
Fuel storage tanks		Metals, hydrocarbons, PAH, BTEX

HAIL activity (Source)	HAIL category	Contaminants of Concern
B – Electrical and electronic works, power generation and transmission		
Substations (with transformers)	B4 – Substations	Polychlorinated biphenyls (PCBs), hydrocarbons, asbestos, metals especially copper, tin, lead, and mercury
E – Mineral extraction, refining and reprocessing, storage and use.		
Hazardous materials in existing building fabric Inappropriate historical demolition	E1 – Asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition	Asbestos and metals
F – Vehicle refuelling, service and repair		
Vehicle workshops	F4 – Motor vehicle workshop	Metals, hydrocarbons, PAH, BTEX, solvents
Service station	F7 – Service stations including retail or commercial refuelling facilities	Metals, hydrocarbons, PAH, BTEX
G – Cemeteries and waste recycling, treatment and disposal		
Existing Disposal Sites*	G3 – Landfill Sites	Hydrocarbons, (including PAH), SVOCs metals
Incinerator	G6 – Waste or wastewater treatment	Metals, hydrocarbons (including PAH), dioxins
Hospital WWTP		Metals, PAH, semi-volatile organic compounds, solvents
I –intentional or accidental release of a hazardous substance		
Boiler	I – Any other land what has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment	Metals, Hydrocarbons, PAH
Dentist		Mercury, present in amalgam in dental fillings, is a hazardous substance.
Demolished buildings		Metals (asbestos associated with inappropriate demolition is covered under Category E1)
Fly tipping		Asbestos, hydrocarbons, metals (from waste)
Soil Disturbance**		Metals, asbestos, semi-volatiles
Workshop sawdust piles		Metals and semi-volatiles

*The disposal sites are not part of the scope of the GHD/HAIL Environmental investigations, and are covered in a separate investigation by Fraser Thomas Ltd. As they are a HAIL activity present within the Site they are listed for completeness.

**Soil disturbance was observed in aerial photos but this is not currently categorised as landfill G3, but is proposed for the DSI investigation to rule out landfilling.

3.2 Other Relevant Investigations

In addition to these reports, other investigations have been undertaken as part of the demolition and remediation project relevant to this SAP and subsequent DSI, including:

- *Annual Stream and Bore Monitoring Reports* (WSP, 2019-2022). These reports showed that surface water and bore water samples are collected from the area of the former disposal sites as part of an existing resource consent. No sediment sampling has been undertaken from the Wharekōrino Stream or from stormwater runoff channels that come from the Site. Sediment sampling has been added to the SAP and is discussed in further detail in the Sampling Schedule in Section 6.

- *Cultural impact assessment: Pokuru 1B – Former Tokanui Hospital Campus* (Te Muraahi & Maniapoto, 2021) This report was undertaken to gain an understanding of the cultural significance of the Site to mana whenua. The report helped identify a number of wāhi tapu areas, or areas of cultural significance / sensitivity, at the Site (e.g. the former morgues). In these areas, less intrusive field sampling techniques are proposed in this SAP, i.e. the use of hand dug samples as opposed to a machine dug test pit with the works being under the supervision of a local cultural monitor.

- *Asbestos and Lead Paint Demolition Survey Report, Areas 1-4* (4Sight, 2022). These reports were undertaken by 4Sight Consulting Ltd (4Sight) to inform the demolition scope for the buildings at the site. The survey found lead based paint on the majority of the buildings across the Site – however sampling of the surrounding soil was not part of the survey scope. In terms of this SAP, the design of building halo sampling for lead based paint was based on alignment with the AECOM 2019 DSI where previous soil sampling transects had occurred. In terms of asbestos sampling design for the SAP, where a building was not identified to contain asbestos and ACM, that building was excluded from consideration because they were not considered to have been a source of potential contamination. Buildings that were scheduled for further sampling were those where weathering of external features of existing buildings, containing asbestos was recorded (e.g. external cladding) or areas of historical demolition works. Further detail on the asbestos in soil sampling is provided in Section 5.4.

- *Tokanui Psychiatric Hospital, Site Investigation: Archaeological Assessment* (Draft, Underground Overground Archaeology, 2023). An archaeological assessment was undertaken by CFG Heritage in order to identify potential archaeological sites (sites associated with pre-1900 human activity) within the Site to support a future application for an archaeological authority to Heritage New Zealand as part of an archaeological assessment of effects (CFG Heritage, 2023) and in accordance with the Heritage New Zealand Pouhere Taonga Act 2014.

These reports have been reviewed by GHD and have been used to inform the sampling design, in particular where soil disturbance is required in proximity to areas of cultural and archaeological significance including the application for archaeological authority where required. A cultural induction facilitated by mana whenua was held on 8 – 9 February and attended by field staff. A Cultural Monitoring Protocol and Accidental Discovery Protocol have also been adopted and will be adhered to by personnel during the investigation in case of the discovery of artifacts on Site.

4. Conceptual Site Model

4.1 What is a Conceptual Site Model?

A CSM identifies the potential contaminant sources (e.g. fuels, pesticides), sensitive receptors that may be affected (e.g. people, soil) and the contaminant transport pathways that may link them together (e.g. accidental ingestion of soil, leakage to ground). A risk is present if there is a complete source-pathway-receptor (SPR) linkage. An example of a complete linkage is shown below in Figure 3:

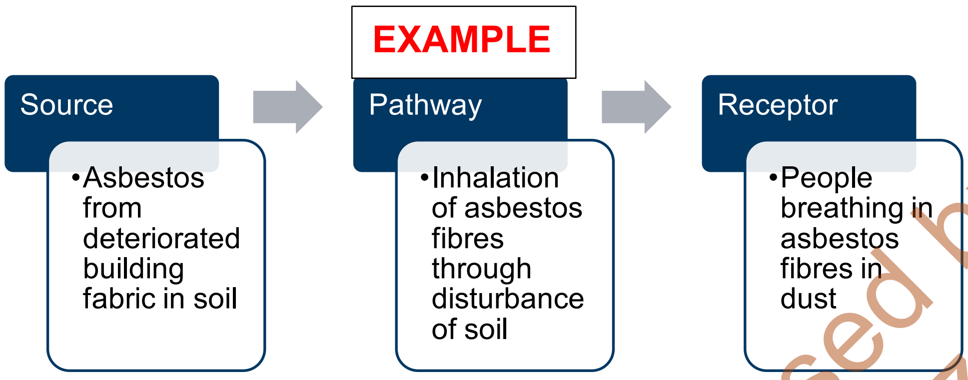


Figure 3 Example of a Complete Source-Pathway-Receptor Linkage

4.2 The Tokanui Hospital CSM

As part of the PSI (GHD, 2022), an initial CSM was developed to communicate the potential risks to human health and the environment from the HAIL sites.

The CSM is designed to be refined and updated as more data is gathered through the investigation process. For example, the current CSM as presented in the PSI report will be reassessed once sampling data is collected during the DSI and presented as an updated version in the DSI report.

Sources, pathways and receptors and a discussion of whether a complete SPR linkage is considered likely, is provided in Table 3. Due to the large number of potential contaminant sources on the Site it is not plausible to show them all, therefore for ease of use, the sources have been amalgamated into similar groupings. A visual representation of the CSM is also provided below in Figure 4.

The final column of Table 3 shows whether the SPR linkage is considered *Potentially Complete* or *Incomplete*. These terms are defined as follows:

– *Potentially Complete* means that the three elements of the SPR linkage are potentially present however testing is required to confirm whether contaminants of concern are present and whether they are at concentrations that may pose a risk to human health or the environment.

– *Incomplete* means that the existing evidence indicates that the SPR linkage is incomplete or unlikely to occur – for example the linkage to offsite residents from hydrocarbons present in the soil within the Site is considered incomplete as there is not the opportunity for offsite residents to be in contact with such soil.

SPR linkages that have been assessed as *Incomplete* have been shaded grey in Table 3.

The purpose of the CSM is to highlight those areas of potential risk based on what is known at this point. For example, "Potentially Contaminated" just means that the three elements of the linkage are present - the land is not necessarily contaminated. To resolve this, the exposure pathways identified in the CSM will be assessed via sample collection in the DSI and subsequent risk assessment, with soil concentrations to be compared against remedial criteria as per the requirements of the THDSP.

Shallow groundwater is not abstracted for potable water supply purposes within the area, with potable reticulated (piped) supply in place. Water supply comes from the Mangaukia Stream near Pirongia, approximately 14 km north-west of the Site. Groundwater is not considered as a receptor in the CSM but rather as a potential contaminant transport pathway to nearby surface water - the Wharekōrino Stream and Pūniu River. The results of the DSI soil sampling and site data collection (such as volatile vapour monitoring and field observations) will be used as a screening tool to understand whether further investigation of the underlying groundwater is warranted.

Future Site Users

The Site will be left in a remediated state as per the requirements of the Deed and the THDSP. This will include the removal of all buildings and leaving the Site in a grassed state. LINZ will obtain all necessary consents for the demolition and remediation as per the Deed requirements. The former disposal sites will remain on the east side of the Wharekōrino Stream and will be managed under their current resource consents.

Once remediation is complete and the land passes from the Crown to new owners, those future owners will need to evaluate contamination issues in relation to any planned future development. Development will need to be considered in the context of where the remediated areas are, where residual concentrations remain and the layout of the future development design.. Future owners will need to apply for any resource consents in respect to their future development plans.

Table 3 Conceptual Site Model Linkages & Discussion

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
Hospital Operations & Building Materials	Asbestos and heavy metals in soil	Inhalation of asbestos fibres or metals in contaminated dust	On-site human health (maintenance /excavation workers)	As part of the future remedial work at the Site, soil disturbance will occur. If not working under an appropriate management plan including appropriate personal protective equipment, workers may be exposed to contaminants in the soil via the inhalation of contaminated dust. Future site users may also be exposed to contaminants via the inhalation of dust during future on Site activities.	Complete – previous investigations have already established concentrations around site buildings above human health thresholds
			On-site human health (future site users)		Potentially Complete
			Off Site Residents (via windborne dust)	There is the potential for windblown dust to affect both these receptors. However these can be managed with appropriate controls. Building demolition phase will be subject to HSE requirements, so risks can be managed and controlled (e.g. dust, erosion and sediment control plans, boundary asbestos monitoring).	Potentially Complete
			Ecological Receptors (flora and fauna)		
	Inorganic contaminants from on-Site industrial activity such as fuel storage and handling (metals)	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices).	Potentially Complete
			On-site human health (future site users)	Future users may have direct contact with contaminated soil or ingest contaminants through contaminated future produce grown on Site.	Potentially Complete
			Off Site Residents	Offsite residents will not have direct contact with contaminated soil on the Site.	Incomplete
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil, with potential for plant die-back in highly contaminated areas. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Stormwater run-off or from contaminated groundwater migration	Human health & Ecological Receptors (surface water – Wharekōrino Stream and Puniu River)	Ecological receptors in the river may be impacted via contaminated discharges. Surface water quality may also deteriorate as a result.	Potentially Complete

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
	Organic contaminants from on-Site industrial activity such as fuel storage and handling (hydrocarbons and chlorinated solvents)	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices).	Potentially Complete
			On-site human health (future site users)	Future users may have direct contact with contaminated soil or ingest contaminants through contaminated future produce grown on Site.	Potentially Complete
			Off Site Residents	Offsite residents will not have direct contact with contaminated soil on the Site.	Incomplete
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil, with potential for plant die-back in highly contaminated areas. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Inhalation of vapours	On-site human health (maintenance /excavation workers)	Excavation workers may be exposed to pockets of vapours in the subsurface.	Potentially Complete
			On-site human health and structures (future site users)	Vapours may be present in the subsurface from historical leaks or spills. These may migrate into future buildings and structures and there is potential for human exposure.	Potentially Complete
			Off Site Residents	Vapours, if present, are likely to be associated with specific former structures on the Site (e.g. former fuel tanks). These are likely to be localised around the sources and migration beyond the Site boundary is unlikely. .	Unlikely to be Complete
			Ecological Receptors (flora and fauna)	Plants and animals may be exposed to pockets of vapours in the subsurface. As these are likely to be localised areas, animals - being more mobile, are unlikely to have long exposure periods. Potential impacts may be reduced plant growth or plant die-back.	Potentially Complete
		Stormwater run-off or from contaminated groundwater migration	Human Health & Ecological Receptors (Surface Water - Wharekōrino Stream and Puniu River)	Ecological receptors in the river may be impacted via contaminated discharges. Surface water quality may also deteriorate as a result.	Potentially Complete

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
Waste Water Treatment Plant	Asbestos in soil from former buildings	Inhalation of asbestos fibres	On-site human health (maintenance /excavation workers)	Previous investigation in the northern portion of the WWTP site did not find asbestos in soil. However, the southern portion of the WWTP site was not tested. Only one structure remains in the southern portion. Building demolition phase will be subject to HSE requirements, so airborne risk can be managed and controlled.	Potentially Complete
			On-site human health (future site users)		Potentially Complete
			Off Site Residents (via windborne dust)		Potentially complete
	Organic and inorganic contaminants from WWTP activities (metals, hydrocarbons)	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			On-site human health (future site users)	Future users may have direct contact with contaminated soil or ingest contaminants through contaminated future produce grown on Site	Potentially Complete
			Off Site Residents	Offsite residents will not have direct contact with contaminated soil on the Site	Incomplete
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil, with potential for plant die-back. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Piped discharges from the WWTP (noting that there is an existing resource consent in place for the WWTP effluent)	Human Health & Ecological Receptors (Surface Water - Wharekōrino Stream and Puniu River)	The WWTP has a resource consent to discharge hospital effluent into the stream. Ecological receptors in the river may be impacted via contaminated stream sediment.	Potentially Complete
Historical Horticultural Activity	Organic and inorganic contaminants from fertilisers and crop spraying (pesticides, herbicides, metals)	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			On-site human health (future site users)	Future users may have direct contact with contaminated soil or ingest contaminants through contaminated produce grown on Site	Potentially Complete
			Off Site Residents	Offsite residents will not have direct contact with contaminated soil on the Site	Incomplete

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil, with potential for plant die-back. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Leaching of contaminants from soil then migration in groundwater	Human Health & Ecological Receptors (Surface Water - Wharekōrino Stream and Puniu River)	There is no evidence of direct stormwater discharge pipework from the former horticultural area. However important transport mechanisms are via overland flow and leaching from soil to groundwater and then migration via groundwater flow towards the Wharekōrino Stream.	Potentially Complete
Fly Tipping (B60)	Organic and inorganic contaminants from refuse	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			On-site human health (future site users)	Future site users may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			Off Site Residents	Offsite residents will not have direct contact with fly tipped material on the Site.	Incomplete
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil, with potential for plant die-back. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Stormwater run-off or from contaminated groundwater migration	Human Health & Ecological Receptors (Surface Water - Wharekōrino Stream and Puniu River)	Although some localised contaminants may have leached from stockpiles to soil, given the distance to the Wharekōrino Stream, it is considered unlikely to be at risk.	Incomplete
Animal Grazing	Heavy metals (e.g. cadmium) associated with superphosphate fertiliser application and pesticides (e.g. DDT)	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			On-site human health (future site users)	Future site users may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
			Off Site Residents	Offsite residents will not have direct contact with contaminated soil on the Site	Incomplete
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil, with potential for plant die-back. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Leaching of contaminants from soil then migration in groundwater	Human Health & Ecological Receptors (Surface Water - Wharekōrino Stream and Puniu River)	Leaching from soil to groundwater and then migration via groundwater flow towards the Wharekōrino Stream is a potential migration pathway. Some of the grazing areas immediately border the Wharekōrino Stream. The testing of the soils (via leaching tests) is proposed as a means of confirming if the exposure pathway is complete.	Potentially Complete
Sports Turfs (Former Bowling Green/Tennis Courts)	Organic and inorganic contaminants from spraying associated with sports turf care - e.g. weedkillers (pesticides, herbicides, metals)	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			On-site human health (future site users)	Future users may have direct contact with contaminated soil or ingest contaminants through contaminated future produce grown on Site	Potentially Complete
			Off Site Residents	Offsite residents will not have direct contact with contaminated soil on the Site	Incomplete
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil, with potential for plant die-back. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Leaching of contaminants from soil then migration in groundwater	Human Health & Ecological Receptors (Surface Water - Wharekōrino Stream and Puniu River)	Leaching from soil to groundwater and then migration via groundwater flow towards the Wharekōrino Stream is a potential migration pathway. Given the distance of these locations to the Wharekōrino Stream, it considered unlikely to be at risk.	Incomplete

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
Sheep dip	Metals and metalloids, organo-chlorines, -nitrogens and -phosphates used in the drenching of livestock.	Contact with skin or accidental ingestion	On-site human health (maintenance /excavation workers)	Excavation workers may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			On-site human health (future site users)	Future site users may have direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)	Potentially Complete
			Off Site Residents	Offsite residents will not have direct contact with contaminated soil on the Site	Incomplete
			Ecological Receptors (flora and fauna)	Plants may be affected by uptake of residual contaminants from soil. Animals may have direct contact with contaminated soil or ingest contaminants through contaminated plants on Site.	Potentially Complete
		Leaching of contaminants from soil then migration in groundwater	Human Health & Ecological Receptors (Surface Water - Wharekōrino Stream and Puniu River)	Leaching from soil to groundwater and then migration via groundwater flow towards the Wharekōrino Stream is a potential migration pathway. Some of the grazing areas immediately border the Wharekōrino Stream. The testing of the soils (via leaching tests) is proposed as a means of confirming if the exposure pathway is complete.	Potentially Complete

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
Landfill* *Note this part of the conceptual site model has been summarised from the Fraser Thomas closed landfill assessment and unless otherwise noted is their assessment of the conditions of the disposal sites and the associated risk assessment, for full details please see their report*	Metals, hydrocarbons, asbestos, medical waste	Ingestion and dermal contact of contaminated materials	Site users	Current use of the area is pastoral farming and animal food crops. Topsoil contains some minor elevated contaminant levels, including some asbestos contamination. The landfill area is subject to intermittent access by site users and more frequent but still intermittent animal grazing. It is considered unlikely there would be an unacceptable risk of contaminant exposure to humans associated with ongoing direct soil contact, except in the portions of the area with asbestos contamination. This risk can be further mitigated through providing relevant H&S advice to site users and through appropriate management controls.	Complete
			Maintenance and excavation workers	Topsoil contains some asbestos contamination, while the fill material also contains asbestos above commercial/industrial levels. Medical waste is also present in the fill. If soil disturbance activities are to be undertaken then specific contaminated land management controls would need to be implemented to manage potential risks.	Complete
	Asbestos, metals, hydrocarbons	Inhalation of contaminated soils (dust)f.	Site Users Neighbouring site users	Inhalation of contaminated dusts and asbestos fibres generated during any disturbance of soils within the site presents a risk to site users, maintenance/ excavation workers, and neighbouring site users. [*GHD notes this risk is higher for maintenance and excavation workers due to the more direct contact with the soil, including the more heavily impacted soils in the disposal locations*] The risk is considered low for existing site users and neighbours and can be mitigated through specific land management controls during such soil disturbance works.	Potentially complete
			Maintenance and excavation workers		Complete
	Metals, hydrocarbons	Overland transport of contaminants within surface water and sediments	Downgradient receiving environments	The landfill area generally has good grass cover. There are some areas of exposed soils and some ponding areas around the landfill areas, and therefore potential for surficial silt/sediment from topsoil across the fill area to be transported in surface runoff to the Wharekorino Stream. Six monthly monitoring of Wharekorino Stream water has found heavy metal concentrations to be lower than the adopted ANZECC guidelines, but iron concentrations often exceed ANZECC long term irrigation and aesthetics drinking water standards. The Wharekorino Stream in the vicinity of the site is typically subject to low flows and is	Potentially complete

Source	Contaminants of Concern	Pathway	Receptor	Discussion	SPR Linkage Complete?
				considered unlikely to be used for water consumption or long term irrigation. The Wharekorino Stream merges with the much larger Pūniu River approximately 670m below the landfill site, where it is considered unlikely, that after attenuation and mixing, contaminants would be recorded in concentrations that would pose an unacceptable risk to ecological receptors. If uncontrolled soil disturbance (e.g. ploughing of landfill area) is undertaken, then potential exists for contaminant release to the downgradient receiving environment via soil erosion and stormwater runoff. This is considered unlikely based on existing use of the landfill paddocks.	
		Leaching of contaminants to groundwater	Downgradient groundwater users Downgradient receiving environments	A complete pathway exists for contaminants to leach from fill materials to shallow groundwater beneath the site and discharge to the Wharekorino Stream. Long term groundwater and stream water quality monitoring has shown elevated boron levels within the groundwater and corresponding elevated groundwater levels midstream and downstream of the site in excess of upstream boron levels, but with all results complying with ANZECC 95% freshwater protection level standards. As there is only one groundwater abstraction bore within 1km downstream of the site where water is used for nursery irrigation, it is considered unlikely that any potential contaminant migration via groundwater would pose an unacceptable risk to human health. Furthermore, it has been confirmed that there is a direct pathway for shallow groundwater under the landfill to flow in to the Wharekorino Stream and hence be subject to attenuation and mixing, so that any contaminants present would not pose an unacceptable risk to ecological receptors.	Complete
	Landfill gas	Inhalation of landfill gas	Site users Maintenance and excavation workers Neighbouring site users	The potential for landfill gases to be generated within the fill profile due to disposal of putrescible materials, including green waste, is considered low. Any landfill gas that was generated would likely be vented through the surface of the fill material to atmosphere. Main possible risk relates to the accumulation of landfill gas within confined spaces.	Incomplete

A cultural impact assessment has been undertaken for the Site (Te Muraahi & Maniapoto, 2021) to capture and understand the cultural significance of the Site. This will be used to inform LINZ of the demolition and remediation project scope. Further context as to the significance of these sites is included in the Cultural Impact Analysis (Te Muraahi & Maniapoto, 2021).

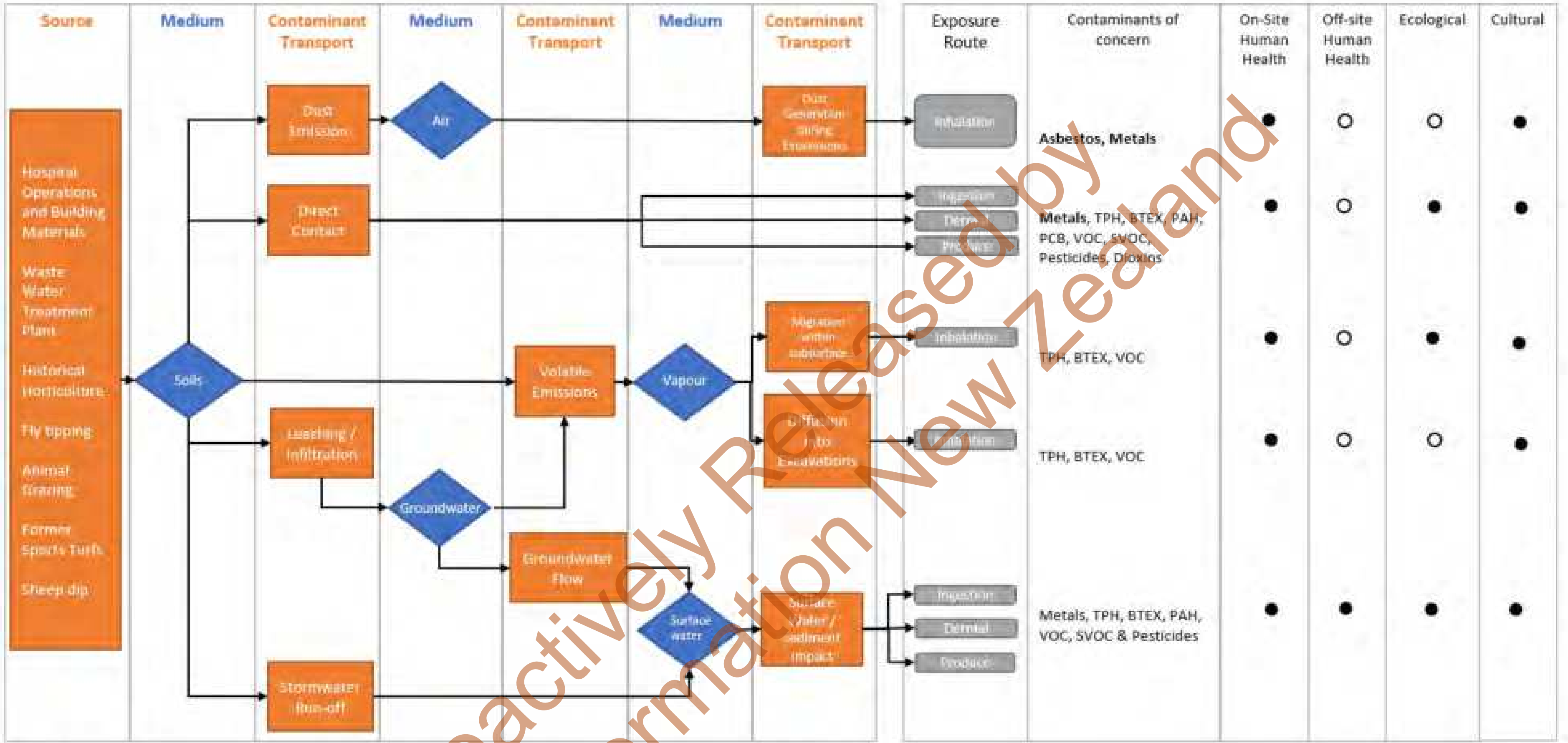
This assessment has identified several cultural receptors, such as culturally significant sites, waterways, flora and fauna.

The identification of culturally significant areas is important for the management of earthworks associated with the remedial work, including minimising earthworks in these areas to minimise potential damage to these sites, sediment, and erosion controls to prevent runoff, and to avoid soil disturbance in these areas. Each of these sites will need to be assessed to measure the level of potential risk of damage from earthworks and other remediation activities.

Cultural receptors do not easily align with the typical conceptual site model, however these have been included in the separate table below as a way to identify and acknowledge potential cultural risks.

Table 4 Cultural Impacts from Contaminated Soil

<table>
<tr><th>Source</th><th>Contaminants of concern</th><th>Pathway</th><th>Receptor</th><th>Discussion</th><th>SPR Linkage complete?</th></tr>
<tr><td rowspan="6">Contaminated soil</td><td rowspan="3">Metals, hydrocarbons, pesticides, asbestos</td><td rowspan="3">Overland flow of soil or sediments</td><td>Culturally significant land areas</td><td rowspan="3">Contamination may be mobilised during earthworks, or from exposed soil, and carried overland into significant areas of the site or into waterways, and subsequently into plants and animals in or near the waterways. These impacts may impact the cultural significance of the soils and waterways, and may impact the ability to collect kai from waterways. This can be managed via appropriate management plans during earthworks (sediment and erosion control plans).</td><td rowspan="3">Potentially complete</td></tr>
<tr><td>Waterways</td></tr>
<tr><td>Flora and fauna</td></tr>
<tr><td rowspan="2">Metals, hydrocarbons, pesticides</td><td>Leaching</td><td>Underlying soil and groundwater</td><td>Contamination may leach from contaminated shallow soil in culturally significant areas, leading to further degradation of the soil or underlying groundwater.</td><td>Potentially complete</td></tr>
<tr><td>Groundwater interactions with surface water</td><td>Flora and fauna</td><td>Impacted groundwater may flow into surface water, and subsequently impact the health of plants and animals who live in and near the surface water.</td><td>Potentially complete</td></tr>
<tr><td>Hydrocarbons</td><td>Soil vapour</td><td>Culturally significant areas</td><td>Soil vapour may be carried through preferential pathways (e.g. permeable soil) to areas underlying culturally significant areas.</td><td>Potentially complete</td></tr>
</table>



Contaminant – Identified contaminant of concern, historically reported above previously adopted criteria.
Contaminant – Identified contaminant of potential concern, below adopted criteria or not currently assessed.
● - Pathway potentially complete
○ - Pathway unlikely to be complete
Refer Section 5 for the definitions of the contaminants of concern

Figure 4 Conceptual site model

4.2.1 Potentially complete pathways

Potentially complete pathways identified in the CSM included several potential exposure risks to human health and environmental receptors from contaminants in the soil profile via ingestion, inhalation, dermal and produce pathways.

The potentially exposure pathways fall within broadly typical scenarios as follows:

– Excavation Workers – workers who come into contact with contaminated material as part of earthworks or soil disturbance within the Site
  - Soil disturbance may result in the accidental inhalation of asbestos or metal-contaminated dust generated during excavation works
  - Soil disturbance may result in the accidental inhalation of volatile vapours generated during excavation works from hydrocarbon or solvent sources
  - Excavation workers having direct contact with contaminated soil on skin or the accidental ingestion of contaminants (e.g. from poor hand-washing hygiene practices)

– Future Site users – the Site will be left in a remediated state as per the requirements of the Deed and the THDSP. This will include the removal of all buildings and leaving the Site in a grassed state. Once remediation is complete and the land passes from the Crown to new owners, those future owners will need to evaluate contamination issues in relation to any planned future development. Development will need to be considered in the context of where the remediated areas are, where residual concentrations remain and the layout of the future development design.

– Surface water and ecology– the Wharekōrino Stream has the potential to receive impacted stormwater and sediment from the site
  - Overland flows and the stormwater network transporting impacted sediment into surface water bodies near the site, may be impacting the ecology of the waterways and impacting potential food sources in the stream.

– While the CSM is based on the protection of human and environmental health, cultural health also needs to be protected. These concepts are often interwoven with each other, and often share several of the same exposure pathways. As a result there is the potential for risk to a number of cultural receptors from the historical Site activities.

4.3 Identified data gap resolution

The GHD PSI identified data gaps for further assessment in the DSI. These data gaps and their proposed resolution are outlined below in Table 5. Further detail on the sampling schedule and analysis is also provided in Sections 5 and 6.

Table 5 Identified data gaps

Data gap	Description	Proposed resolution
Understanding soil contamination from HAIL activities	Assessment of the impacts of HAIL activities identified in PSI, that have not been previously investigated.	The principal focus of this SAP, using a combination of judgemental and composite sampling approaches to collect a robust data set. Detailed in Sections 6 and 7.
Impacts on the Wharekōrino Stream	While the biannual landfill discharge monitoring required under consent 102269 (undertaken by FTL) has been monitoring potential impacts on the Wharekōrino Stream, the potential for the Hospital site impacts via stormwater discharge and overland flow is not understood at this time. The stormwater discharge and overland flow may have contributed to impacts in the stream and its sediments.	To address this sediment sampling will be undertaken along points of overland flow and in the stream and discharge points from the Hospital WWTP. SPLP analysis will assess if there is evidence of soil leaching contaminants to groundwater, with potential migration to the Wharekōrino Stream.
Two unknown building uses: • Building 61 • The former building west of Building 35	Building 61 (also known as Shed 11) is a small square building in the commercial area of the Site. It has no windows and has vents on the outside and currently contains a small above ground tank (potentially an air compressor) and associated pipework. Its exact use is unknown. The current utility service plans for the area do not show a piped connection to this building. Some minor oil staining on the internal floor was evident.	Sampling is proposed through the floor of B61 to assess whether any underlying impacts have occurred. A single location is proposed, comprising metals, hydrocarbons, semi-volatile and volatile organic compounds.
	The former building west of B35 was a rectangular shaped building north of the former glasshouses and in the area used historically for horticulture. The building was demolished but some of the foundations and the building outline remains. As it has been demolished the building does not appear on the LINZ Building ID list.	The former building use was likely tied to the area's historical horticultural use. Sampling is proposed both around the building footprint and within it. Samples will be analysed for metals and asbestos, plus a range of pesticide and herbicides.
Dry Cleaning	The AECOM gap assessment (AECOM, 2018b) listed dry cleaning as a data gap, but no research of records or hospital laundry practices has been undertaken until the GHD PSI. Research undertaken by LINZ found that dry cleaning is typically not used for standard hospital laundry practices as it is unlikely to meet health specifications for sterilisation. No records were found by GHD during the PSI to demonstrate that chemical storage of chlorinated solvents occurred on the site.	To confirm there is no risk from chlorinated solvents within the Site, soil sampling will be collected and analysed for these chemicals in targeted locations.
Impacts under the building slabs	As many of the impacts of the HAIL activities are likely to be within the footprint of the buildings associated with the activity, sampling of these locations is required prior to demolition of the structure.	LINZ will excavate suitable holes in building floors to enable GHD to collect samples from specific buildings of interest.

Data gap	Description	Proposed resolution
Fly tipping (or small scale waste burial)	There is anecdotal evidence of waste material being buried at the Site, but specific locations have not been able to be identified. While one interview with a former employee was undertaken, it indicated that this practice had ceased by the 1970s, historical disposal cannot be ruled out.	Key areas have been identified in the PSI from aerial photography assessment. Other known areas of fly tipping were removed by LINZ. GHD will undertake sampling in areas of suspected fly tipping. These will cover metals, asbestos, hydrocarbons and volatile organic compounds.
Areas of soil disturbance and/or infilling	Areas of potential soil disturbance were identified in the PSI. These were in the area immediately north of the former Wards F, G and H, in the area of the stream gully and to the south of the hospital in the paddocks beyond Building 30.	The area to the north of the former Wards F, G and H will be sampled via test pitting. Samples will be tested for metals, asbestos and SVOCs. The remaining areas identified south of Building 30 and in the stream gully area have been expanded into the scope of Fraser Thomas' separate investigation.
Extent of Soil Contamination from Deteriorated Building Fabric and Demolished Structures	AECOM undertook an asbestos survey and developed an Asbestos Management Plan for the Site in 2018. Impacts were then partially assessed during the AECOM DSI however these were not fully delineated and the full extent of the impacts from building fabric across the Site are unknown. In 2022, 4Sight undertook more thorough surveying of asbestos and lead based paint as part of the demolition surveys which confirmed the buildings where lead and asbestos have been identified in the building fabric.	To address this, HAIL Environmental are undertaking investigations of the building halo with an XRF. This, alongside with the GHD sampling of the demolished buildings and substations and the existing data set from the AECOM DSI (AECOM 2019) will allow a better understanding of the extent of impacts from the building fabric on surrounding soil.

5. Sampling and Analysis Plan

5.1 Contaminants of Concern

Soil and sediment samples will be tested at a laboratory, from a selection of analytes in Table 6. The analytes chosen for each sample will be specific to the contaminants of concern associated with the historical activity identified in the PSI. Full detail on the sampling at each location is provided in Appendix C and is discussed in Section 6.

Table 6 Soil & sediment sampling suites

Suite name	Description
Metals	Arsenic, beryllium, boron, cadmium, chromium, copper, lead, mercury, nickel, zinc (this is a standard 10 metals laboratory suite)
TPH	An assessment of the C_7- C_{36} hydrocarbons in a sample.
BTEX	An analytical suite targeting benzene, toluene, ethylbenzene and *ortho-*, *meta-* and *para-*xylenes (also part of the VOC suite)
PAH	A suite targeting polycyclic aromatic hydrocarbons (also part of the SVOC suite)
PCB	A suite analysing the PCB congeners underlying the Site, including the 12 dioxin-like PCBs.
VOC	A broad suite containing volatile organic compounds including chlorinated hydrocarbons
SVOC	A broad suite containing semi-volatile organic compounds
Pesticides	Organo-chlorine, -nitrogen and -phosphorous pesticides and acid herbicides
Dioxins	Dioxins PCDD and PCDF (for one location only, site incinerator)
Asbestos (presence/absence)	Screening analysis for asbestos, or an assessment if building fabric contains asbestos.
Asbestos (semi-quantitative)	Quantifying the percentage of asbestos fines/free asbestos and asbestos containing material in a sample.
Miscellaneous	soil pH and total organic carbon

5.2 Environmental Media to be Sampled

5.2.1 Soil

Soil samples will be collected in order to understand the nature and extent of contamination in soil associated with the identified HAIL activities from the PSI. The focus of sampling is on the top 1 m of soil where the majority of contamination is likely to be found (fuel/oil spills, pesticide residues, metal and asbestos from building fabric deterioration). However, in order to understand the potential risks to the groundwater pathway from soil, some deeper sampling will be undertaken in areas of suspected historical fuel and solvent use. Sampling depths are discussed further in Section 5.4 and Section 6.

5.2.2 Sediment

Sediment will be sampled from the following areas:

– Wharekōrino Stream
– The area downstream of a drainage basin that flows into the Wharekōrino Stream
– An area of discharges from the WWTP into the Wharekōrino Stream

This will provide a snapshot of contamination in sediments along drainage pathways and watercourses. Samples are to be collected along the length of watercourses, including upstream and downstream of the Site and are discussed in further detail in Section 6.

5.2.3 Groundwater

The PSI found six groundwater bores within 500 m of the Site, but none of these were used for drinking water purposes. Well screens are typically set at 60-70 metres below ground level (m bgl), with one at 33.5 m bgl. This pattern of abstraction suggests that the shallow groundwater is not used in the area. The silts and clays that comprise the dominant shallow geology are unlikely to support groundwater abstraction.

Soil sampling and field measurement results collected in the DSI will be used as a screening tool in the Site Specific Risk Assessment in order to understand whether groundwater investigation is needed. The screening process for this is as follows:

- Data from previous investigations has been used to highlight areas which may pose a potential risk to groundwater (e.g former underground fuel tanks and areas which may have used larger volumes of chemicals such as the former laundry). Soils will be collected from those locations for laboratory analysis. If initial laboratory soil results are elevated, then additional leachability testing will be undertaken on soil samples (see Sections 5.3.3 and 5.4.4).
- For fuel specifically, soil results can be compared against Ministry for Environment protection of groundwater quality criteria to assess the potential for groundwater risk.
- If initial laboratory soil results are elevated, then additional leachability testing will be undertaken on soil samples
- Volatile organic compounds will be measured in the field using a Photo Ionisation Detector (PID) in areas of higher risk (e.g. areas of known fuel or chemical storage).
- If the concentrations found in the soil are not considered to pose a risk to groundwater, then no further groundwater investigation is proposed.
- Should an issue be found in soil that indicates a potential groundwater issue, this will be investigated separately as it falls outside of the scope of this Project.

5.3 Remedial Standards & Soil Disposal Criteria

5.3.1 Process for Deriving Remedial Standards

The THDSP sets out the process for establishing remediation standards for the Site. However, at the date of signing of the Deed, there was not enough information available for the Crown to be able to commit to a particular remediation standard to be achieved for all the Tokanui Deferred Selection Properties.

The THDSP Subpart B, Section 9.3 states,"*….the Crown will use best endeavours to remediate:*

9.3.1: 85% of the total land area of the Tokanui Hospital deferred selection properties to the rural residential remediation standard; and

9.3.2: a contiguous area not exceeding 15% of the total land area of the Tokanui Hospital deferred selection properties, to the managed remediation standard."

The THDSP defines the two remedial standards in clauses 9.3.1 (rural residential) and 9.3.2 (managed) are to be chosen in accordance with CLMG2 (Ministry for the Environment, 2011) or derived through a Site Specific Risk Assessment. Guidance on this decision is provided within CLMG5 (Ministry for the Environment, 2021) and the NES CS Users Guide (Ministry for the Environment, 2012) which states a Site Specific Risk Assessment can be carried out when soil concentrations exceed Soil Contaminant Standards or does not fit the generic land use scenario used in the guidance documents.

The Site does not fit the generic land use scenarios for a rural residential site and therefore a Site Specific Risk Assessment is being undertaken. The Site Specific Risk Assessment will define the remedial standards using the site specific soil information gathered during the DSI. These remedial standards will include:

- Protection of human health criteria
- Environmental protection criteria

The THDSP specifies that the land will be remediated in accordance with the applicable remedial standards (as per those which will be developed in the Site Specific Risk Assessment), remove all vertical building structures, determine the extent of horizontal infrastructure to be removed and ensure that the site is free of building debris and is stabilised by grassing.

5.3.2 Derivation of Site Specific Criteria

The process for deriving criteria using site specific information is set out in the NES CS Methodology document (Ministry for Environment , 2011a). In summary, it allows the risk assessor to modify the generic assumptions that underly the existing NES CS criteria in order to give a more accurate estimate of exposure.

This may involve modification of:

- Toxicity
- Default receptor assumptions on physical characteristics (weight) and behaviour (e.g. the frequency and/or duration of exposure)
- Exposure estimates – whether all exposure pathways assumed actually exist and whether generic exposure rates are realistic for the specific situation.

The derived criteria and the supporting rationale will be provided in the Site Specific Risk Assessment report which will be prepared HAIL Environmental (see Section 7.8.3 for further detail on the DSI and Site Specific Risk Assessment report contents).

5.3.3 Other Relevant Criteria

In addition to the generation of human health and environmental criteria, the Site Specific Risk Assessment report will also contain comparison with natural background concentrations and relevant soil disposal (landfill) criteria, in the event that soil needs to be removed from Site.

Natural Background

Despite being labelled as contaminants, the metals analysed in DSI soil samples also occur naturally. In addition, some man-made contaminants such as DDT were subject to such widespread use that they are commonly found in soil and the Ministry for Environment developed 'background' levels for soils that DDT was not directly applied to. For risk assessment comparison it is important to understand the concentrations on Site compared to typical background concentrations. The Site Specific Risk Assessment report will also set out the natural background criteria and how they have been chosen.

Waste Acceptance Criteria

If soil is removed from the Site, it will need to be disposed of to a suitably licenced waste disposal facility. Fundamentally, the degree of contamination in the soil determines the type of landfill where it can be accepted. Soils with concentrations less than background concentrations can go to a cleanfill site. Slightly contaminated material can go to a managed fill site. Higher concentrations need to go to an engineered municipal landfill.

The Site Specific Risk Assessment report will set out the applicable waste acceptance criteria and how they have been chosen.

Landfill acceptance criteria are based on the leachability of contaminants. A specific laboratory analytical test, the toxicity characteristic leaching protocol (TCLP), is used as it replicates the chemical environment within an engineered landfill cell. TCLP testing of soil from the Site is included within this SAP and is discussed further in Section 5.4. The TCLP results will be compared with the relevant landfill acceptance criteria in the Site Specific Risk Assessment report in order to understand appropriate soil disposal options.

5.4 Sampling Design

5.4.1 Approach to Sampling Strategy

A mix of sampling strategies will be applied as follows:

– Judgemental (also known as targeted) sampling around or within areas of specific point sources. This includes:
  - Identified Point Sources - e.g., fuel tanks, pesticide storage sheds, transformers.
  - Building Halos - the area surrounding the immediate building exterior or 'halo' is proposed to be sampled using a combination of X-ray fluorescence (XRF) and laboratory analysis to assess the extent of metal contamination around site buildings.

– Systematic (or grid-based) sampling in areas of horticulture or grazing which are likely to have widescale pesticide/herbicide spraying in a consistent and unform manner. Composite sampling techniques are proposed in order to collect data from these areas.

Details on all location-based sampling is provided in Section 6, with a summary of the sampling strategy described below.

5.4.2 Judgemental Sampling

Point Sources

Sample locations have been selected around specific HAIL sources using judgemental sampling to target near, or within, a potential contaminant source area. For example, sampling locations have been selected around the four sides of a former fuel tank, and at the Gardeners Shed samples are proposed both within the building (to assess seepage to ground) and in external areas of concrete where pesticide drums may have been stored. Judgemental sampling is proposed in all areas with the exception of the grazing areas and horticultural area. The samples will be submitted to Hill Laboratories in Hamilton under standard chain of custody documentation.

Building Halo Sampling: Metals & Previous Sampling Gaps

The previous 4Sight asbestos and lead paint survey found lead based paint on the majority of the buildings across the Site – however sampling of the surrounding soil was not part of the survey scope. In terms of this SAP, the design of building halo sampling for lead based paint was based on alignment with the AECOM 2019 DSI where previous soil sampling transects had occurred.

In 2019 AECOM completed soil sampling in transects around building halos and X-ray fluorescence (XRF) testing for lead in soil. In addition, the AECOM DSI included some limited test pitting around buildings. This comprised 12 test pits in the commercial area of the Site.

The GHD and HAIL Environmental field sampling in the DSI will include a combination of XRF sampling and test pitting around buildings.

Field screening will be completed using XRF in situ: a non-destructive technique used to estimate the content of heavy elements in a sample by measuring the fluorescent (or secondary) X-rays emitted from a sample when it is excited by a primary X-ray source.

As XRF measurements vary to a certain extent depending on the soil matrix and water content, replicate measurements will be collected at a minimum rate of 1 in every 10 measurements. As XRF is a semi-quantitative technique, matched soil samples will be collected at a rate of 1 in every 10 measurements. Soil samples will be collected to represent the lower, middle and upper range of lead concentrations identified by the XRF.

Buildings previously assessed during the AECOM DSI are excluded from the XRF assessment. Buildings which are surrounded by impermeable surfacing or constructed from materials highly unlikely to include lead-paint such as galvanised steel sheds and units with uPVC cladding are also excluded from the XRF assessment.

As a result of the exclusions above, targets for halo sampling include buildings B1, B5-8, B15, B17, B19-23, B27, B30, B34-39, B42, B44-48, B51-54, B57, B59-62, B66, B67, B71, B75 and substations Sub1 - Sub8, in all some 47 potentially lead-painted structures. The locations of halo sampling transects are shown on Figure B3, Appendix

B and are detailed in the Sampling Schedule in Table 10 of Section 6. Given the large amount of data – two transects for each building would generate around 1000 data points.

Attempts will be made to locate lead halo around / within demolished buildings: Wards F, H, the former Nurses' Home, buildings B4, B32, B52, and B64, using XRF. If successful, the apparent locations will be marked with paint, and transects will be set out as for remaining buildings.

The AECOM DSI sampling has provided an extensive data set of metals and asbestos sampling. AECOM collected transect data from around 13 buildings, plus test pits from around another 12 buildings. This, coupled with the proposed DSI testing around 47 other structures will provide a comprehensive data set.

There are a handful of locations where proposed DSI sampling overlaps previous AECOM sampling. The rationale for this is as follows:

- Buildings 73 and 74 (Laundry Buildings) – Sampling is proposed to include chlorinated solvents as a contaminant of concern. The previous sampling was focused on the building halo only and not for this family of contaminants. As a result, test pits are proposed around the exterior of both buildings and inside B74 itself.
- Building 16 (Former fuel station and garage/workshop) – the previous halo sampling included only the southern wall. Additional sampling is proposed around the south, east and west of the building and also inside the building in the area of former vehicle inspection pits. The north side of the building was tested during previous investigations around fuel system removal and further sampling is not considered necessary. The previous sampling of the southern wall included a surface sample for hydrocarbons, however better depth profiling is required and the DSI proposes deeper sampling below the surface.
- Substation 1 – the previously collected samples were from external areas. The DSI proposes a sample inside the substation itself, through the substation floor into the underlying soil.
- Former Ward G – the previous sampling was focused on the southern side of the footprint of this demolished building. Further sampling is proposed to cover the northern part of the footprint and provide more complete coverage.

Building Halo Sampling: Asbestos in Soil

The lead based paint and asbestos survey undertaken recently by 4Sight (4Sight, 2022) identified that a number of buildings contain asbestos and Asbestos Containing Materials (ACM).

Based on the identified presence of asbestos and ACM in buildings present on the Site and MfE HAIL Guidance, we have applied the logic described in Table 7, to identify the need to consider assessment of soils for asbestos where a building was identified in the 4Sight 2022 survey was found to contain asbestos and ACM. Where a building was not identified to contain asbestos and ACM in the 4Sight 2022 survey, that building was excluded from consideration.

Table 7 Logic for determining areas for consideration of soil sampling works

Mechanism for soil contamination to occur	Areas identified for consideration of soil sampling works		Rational
	Within building envelope	Outside building envelope	
Historical Demolition works	Yes, unless soil sampling historically undertaken		Asbestos may have been accidentally released into the soils within the vicinity of historic buildings. Therefore, these areas have been given further consideration for potential soil sampling.
Weathering of external features of existing buildings (e.g. external cladding), containing asbestos	No, considered under proposed demolition works (refer below)	Yes, where damage was identified to be medium or high in the 4Sight 2022 survey and historic soil sampling not previously undertaken	The soils in the immediate vicinity of these buildings may have been affected by weathering. Therefore, these areas have been given further consideration for potential soil sampling.

Mechanism for soil contamination to occur	Areas identified for consideration of soil sampling works		Rational
	Within building envelope	Outside building envelope	
Weathering of internal features of existing buildings (e.g. internal pipework), containing asbestos	No, considered under proposed demolition works (refer below)		Internal fixtures containing asbestos and ACM were considered to present a risk to soils during demolition works only.

Using the logic described in Table 7, the proposed extent of asbestos sampling works to evaluate soils impacted by asbestos from demolished and existing buildings is described in Table 8. The proposed soil sampling locations are depicted on Figure 5 and Figure 6.

Figure 5 Proposed Asbestos Sampling - Substation 8

Figure 6 Proposed asbestos sampling – former sports pavilion

Table 8 Proposed extent of asbestos sampling works to evaluate soils impacted by asbestos from demolished and existing buildings

Building ID	Building name	Level	Primary location	Extent of Damage	Historical soil sampling undertaken	Soil sampling proposed
Building 01 - Admin	Admin	External	Roof	Low	No.	No, extent of damage identified to external ACM was low or none.
Building 58 – Rec Hall	Rec Hall	External	Roof	High	Yes	No, The presence of asbestos has been identified sufficiently to inform remedial options.
Building 29	Ward 7	External	External	Low	Yes	No. The presence of asbestos has been identified sufficiently to inform remedial options.
Substation 8 (S8)	Substation 8 by Ward K	External	Roof	Medium	No.	Yes, asbestos has been identified in a deteriorated condition in this location. Soil sampling proposed around all external sides of the substation.
Building 33	Ward 9	Roof	Roof Water Tank Sheds	Low	Yes	No, the presence of asbestos has been identified sufficiently to inform remedial options.
Building 48	Ward 16	Roof	Exterior Skylights	Low	No.	No, extent of damage identified to external ACM was low or none.
Building 53	Ward 19	External	Walls	Low	No	No, extent of damage identified to external ACM was low or none.
		External	Walls	None		
		External	Walls	None		
		External	Walls	Low		
Building 32	Shed 4	Not assessed during the 4Sight 2022 building survey . Observed during the GHD 2022 walkover.			No.	No, external ACM was not identified during the site walkover. Surface surrounding the building is concrete.
Building 34	Shed 2, Toilet Block (Demolished)	Not assessed during the 4Sight 2022 building survey. Observed during the GHD 2022 walkover.			No.	No, external ACM was not identified during the site walkover.
Building 64	Sport pavilion and shed (Demolished)	Not assessed during the 4Sight 2022 building survey.			No.	Yes, proposed collection of samples from two locations within the former footprint of the building.

5.4.3 Systematic Sampling

Grazing Areas

Areas currently used for grazing have been divided into ten contiguous blocks (COMP01-COMP10) for sampling purposes (see Figure 7 for an illustrative extract, and also included in Figure B4, Appendix B). Each block will be sampled using the Fonterra DDT soil sampling protocol, which involves a composite formed in the field from at least 30 soil plugs collected in a Z-pattern across the full extent of the block using a 37.5 mm push sampler.

The composite samples will be submitted to Hill Laboratories in Hamilton under standard chain of custody documentation for metals, OCP and pH analysis and, for COMP10 only, mercury (due to the proximity to the former dental surgery, Building B8).

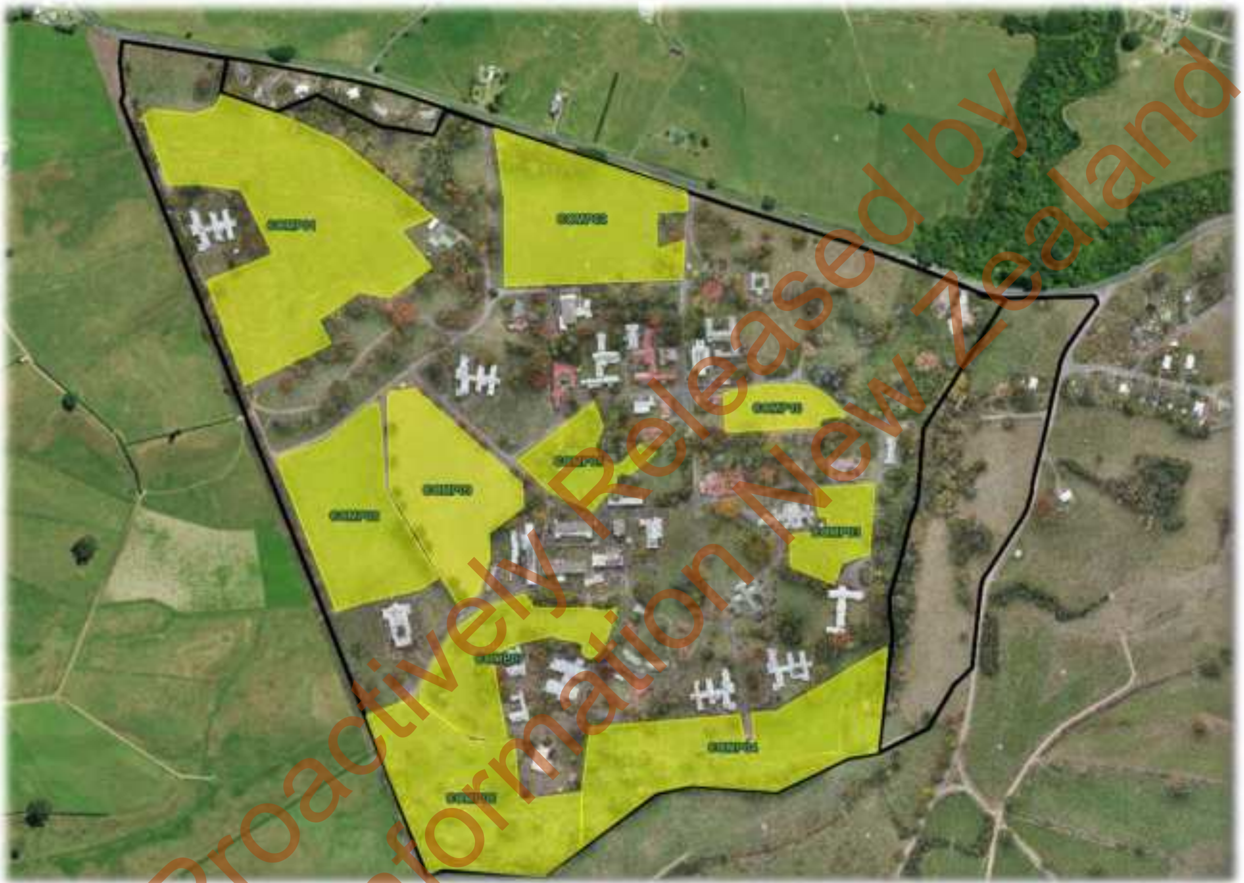


Figure 7 Location of grazing composite areas

Horticulture Area

Composite sampling is proposed for the area of historical horticulture located in the northeast of the Site (see Figure 8, outlined in red). This comprises the collection of a series of individual samples from different locations followed by mixing an equal mass of each sample together to form a single composite sample. The composite sample is then analysed with the results representing the average of the individual sub-samples.

The horticulture area has been split into smaller areas for composite sampling, named Areas A-H. In each area individual sub-samples will be collected which will be sent to the laboratory for analysis. For example, in Area A, there will be four subsamples named A1-A4, used to generate the sample COMP_A (see Figure 9 for an illustrative extract, also included in Figure B1, Appendix B).

Sampling will be undertaken in accordance with CLMG 5 as follows:

– The CSM indicates that this an area likely to contain low-level, homogenous contamination.

– A maximum of four sub-samples will be composited together.

– A minimum of four composite samples is recommended from within the exposure area to be analysed – we are proposing nine composite samples across the area.
– Sub-samples will be from the same soil types and depths.
– Compositing will be limited to metals and pesticides analysis.
– The composite will be assembled in the laboratory, not in the field.

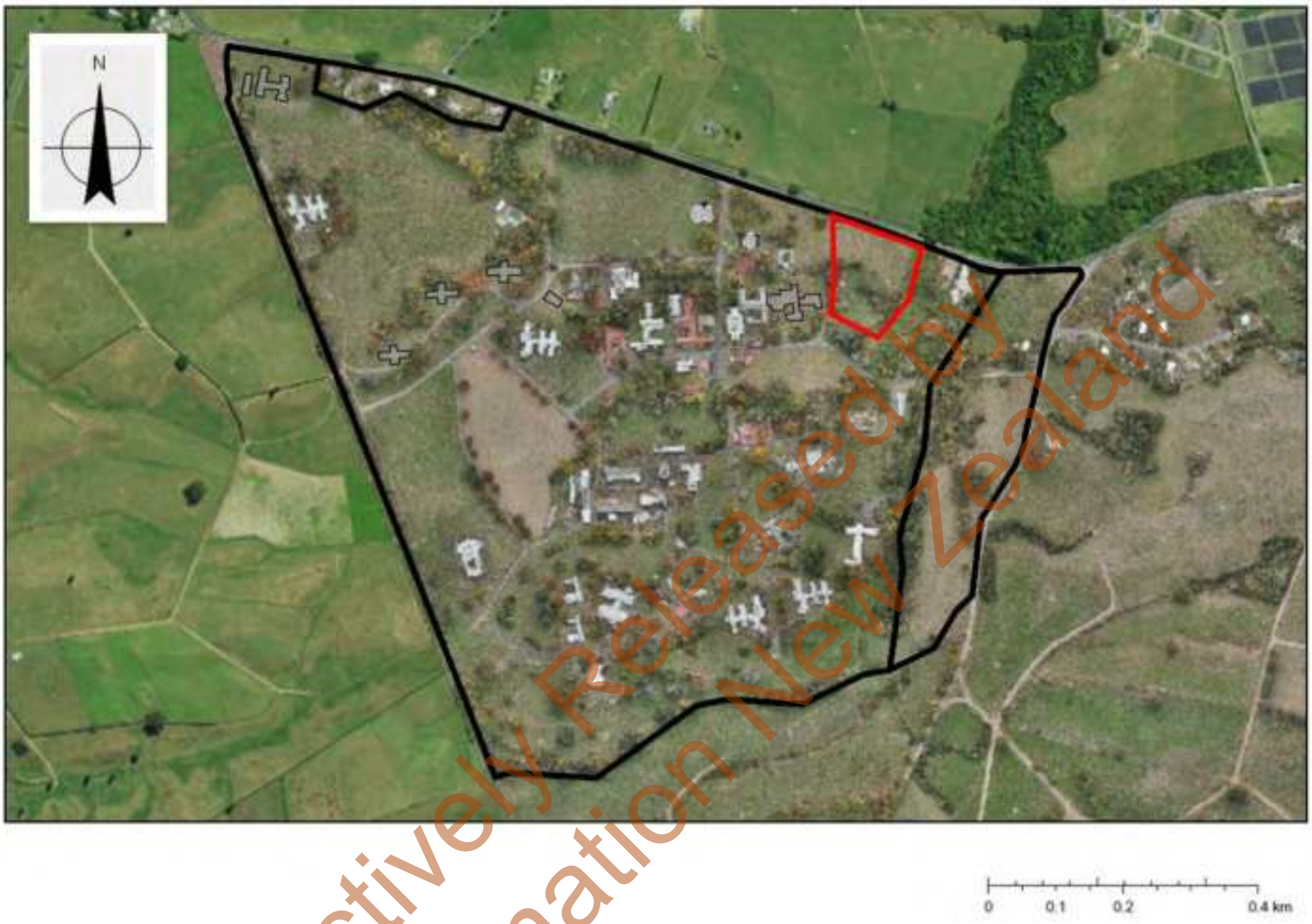


Figure 8 Location of horticulture areas

– The northern part of area contains a rectangular field, which will be sampled on a 20m grid basis and will result in six composite samples, labelled COMPA-COMPF (see Figure 9). The southern part of the area contains thick trees and some buildings, meaning the same sample distribution can't be applied. In these areas, two groups of compositing will be undertaken (COMPG and COMPH) but with three sub-samples rather than four (see Figure 9).
– Samples will be collected from similar depth and composited together, e.g. in Area A, the four sub-samples collected from 0.1m will be composited as COMPA_0.1, the sub-samples from 0.5m will be composited as COMPA_0.5 and so on.

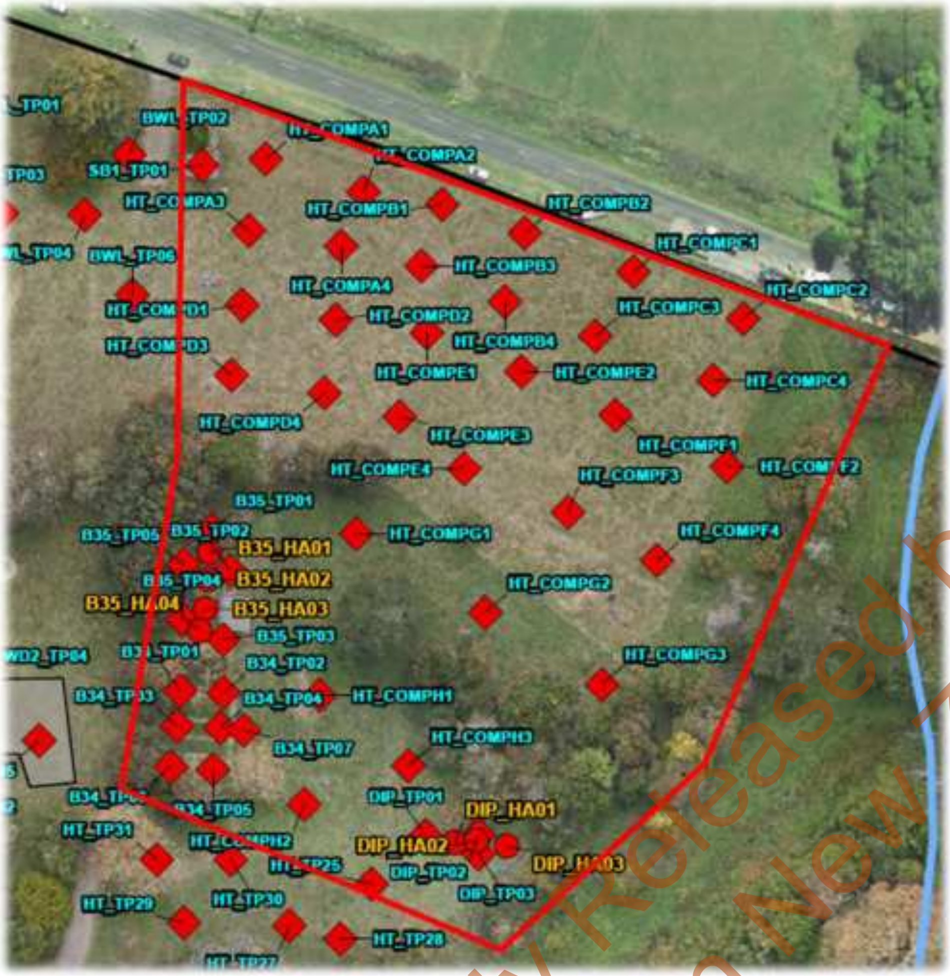


Figure 9 *Horticulture area showing composite sampling locations COMPA-COMPH*

5.4.4 Leachability Testing

Following the completion of the DSI, the Site Specific Risk Assessment Report will include the consideration of potential excavation of soil and removal to landfill. This will be supported by TCLP analysis as outlined in Section 5.3.3.

Similarly, a separate test will be used to assess the exposure pathway from soil leaching to groundwater. This is done through a similar test to the TCLP called, Synthetic Precipitation Leaching Procedure (SPLP). The SPLP is designed to replicate conditions of rainfall on a surface (such as soil), as opposed to TCLP which replicates landfill cell conditions. Soil samples from key areas identified in the CSM such as grazing areas or horticultural area will be chosen for TCLP and/or SPLP analysis.

An allowance has been made for 30 samples from the DSI to undergo TCLP and SPLP analysis. Samples will be selected for TCLP and SPLP analysis on the basis of the following:

– analysing samples which have elevated concentrations of contaminants of concern, coupled with;
– analysing sufficient sample numbers from different depths and areas of the Site to provide leachability data representative of the Site conditions.

5.4.5 Statistical Robustness of the Data Collection

Statistical analysis can be used to help summarise the complex information in a DSI.

As per CLMG5, only systematic or unbiased sampling should be subject to statistical analysis – in relation to Tokanui this relates to the proposed composite sampling areas. A sufficient number of data points is required for the statistical analysis to be performed with accuracy. CLMG5 states that the number of samples depends on the statistical test to be performed, e.g the USEPA recommends a minimum of 8 to 10 discrete observations from a sample population before using certain methods.

CLMG5 provides a method for calculating the number of sample points for contaminant hotspot detection. This is based on detecting circular hotspots with 95% confidence using a square grid sampling pattern. This method is only a guide as there are a number of potential drawbacks to relying on this method alone (for example hotspots are very rarely circular) and professional judgment is required based on the nature of the site and contaminants of concern.

The area of systematic sampling using composite samples in the northern part of the former horticultural area is based on a square grid sampling pattern with samples at 15m intervals. For comparative purposes, based on the CLMG 5 equations, such a grid would detect an 9m radius hot spot with 95% confidence. The number of sampling points needed using the CLMG 5 equations and given the size of the paddock of interest is calculated at 28. The number of sampling points chosen by GHD is 24 which is based on a grid and also the shape of the field. This is considered sufficient coverage of the area concerned. In addition, the DSI is collecting samples from 3 depth intervals, so at least 72 samples are proposed to be collected from the area concerned.

Overall, a total of 320 samples collected from judgemental and systematic sampling at the Site will be sent for laboratory analysis, 30 of which will be sediment samples. These, added to the approximately 1,000 data points being collected during the XRF assessment will provide a robust data set for the Site Specific Risk Assessment.

6. Sampling Schedule

6.1 Soil Sampling

This section contains detail on each sampling location, the contaminant source being investigated, the number and type of samples, depths of sampling and analytical testing suite.

In most locations, more samples are collected than are analysed. It is typical practice to send all samples to the laboratory but have the unanalysed samples kept in cold storage. If for example, shallow samples contain evidence of contamination, the deeper samples held in storage may then be analysed to understand if the contamination is also present in the deeper samples. These stored samples are referred to in the tables in the rest of this section as 'HOLD COLD'. Due to the varying nature of the potential contaminants, some of them (such as solvents) tend to volatilise in a short time period and need to be analysed within a certain window of time, other such as metals can be held for a much longer period. The windows are known as laboratory holding times and are discussed further in the Quality Assurance and Quality Control section (see Section 7.8).

– Soil sampling locations are shown in Figure B1, Appendix B
– Sediment sampling locations are shown in Figure B2, Appendix B
– Sampling locations for XRF analysis are shown in Figure B3, Appendix B
– A summary of the sediment sampling locations is provided in Table 9 with the soil, sediment and XRF sampling schedule grouped by HAIL activity provided in Table 10
– A full sample-by-sample analysis schedule for the whole Site is provided in Appendix C

6.2 Sediment Sampling Locations

Sediment sampling is important to enable an understanding of whether the sediment is contaminated and what impacts that may have on flora, fauna. It is also important to understand distribution of contaminants in the sediment along the length of watercourses – for example, upstream samples will provide an indication of whether the contamination, if present, may be a result of upstream influences.

Sediment samples will be collected from two watercourse areas. First, the Wharekōrino Stream running north-south along the eastern edge of the Hospital and second, an area of overland flow/discharge that appears to be routed from a drainage basin in the hospital ground locations to the east of Building 8. The discharge then meets with the Wharekōrino Stream close to the Te Mawhai Road to the northeast. Two samples are also proposed in the WWTP area where discharges were observed during the PSI site walkover.

Table 9 Sediment sampling locations

Sample	Location	Detail
STR_SED01	Wharekōrino Stream	Located at further accessible downstream point of Wharekōrino Stream before it crosses under Te Mawhia Road
STR_SED02	Wharekōrino Stream	Located just downstream of Hospital drainage into Wharekōrino Stream
STR_SED03	Wharekōrino Stream	Located at pipe bridge that connects WWTP with Hospital. Upstream of the confluence with Hospital drainage
STR_SED04	Wharekōrino Stream	Approximately mid-way along Hospital area, east of Building 24
STR_SED05	Wharekōrino Stream	Upstream location to east of Building 31
HSP_SED01	Hospital Drainage	Located in drainage basin, at upstream side of culvert opening
HSP_SED02	Hospital Drainage	On downslope area, downstream of culvert exit
HSP_SED03	Hospital Drainage	On downslope area, downstream of culvert exit
HSP_SED04	Hospital Drainage	Just upstream of confluence with Wharekōrino Stream
WWTP_Seepage-SED	WWTP at Wharekōrino Stream	Area of seepage, possible overflow, close to Te Mawhia Road
WWTP_DIS-SED	WWTP at Wharekōrino Stream	At discharge pipe into Wharekōrino Stream

Note – all references to asbestos analysis in the detailed sampling tables relate to semi-quantitative analysis, unless stated otherwise.

Table 10 Sampling Schedule for Soil and Sediment

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Soil								
Former potable water treatment plant (B7)	A2 – chemical bulk storage	**2 Locations** Two test pits in area of disused structures	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 - 1.0 m bgl	6	4	Metals, asbestos on shallow (0.1m) samples Deeper samples on HOLD COLD
Laundry Building (B74)	A5 – dry cleaning plants including dry-cleaning premises or the bulk storage of dry-cleaning solvents	**8 Locations** Six test pits are proposed around the periphery of the building In addition, two hand augers are targeted at downpipes or apparent discharges to ground.	Test Pits & Hand Augers	2.0 m bgl	Test Pit samples are to be collected from: 0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl Hand Auger samples are to be collected from: 0.0 – 0.1 m bgl 0.5 m bgl 1.0m	24	17	Test pits TPH and VOC on 0.1m and 0.5m samples. 1.0m HOLD COLD. Hand Augers Metals and VOCs on 0.1m and 0.5m samples. 1.0m – HOLD COLD
Shed 7 (B73)		**2 Locations** One test pit proposed through the floor of the building. One test pit on the outside of the building.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	6	4	Internal TP Metals, TPH, PAH, PCB, VOC at 0.1m and 0.5m. 1.0m HOLD COLD External TP As per internal TP, except 0.1m to be analysed for asbestos
Potential Old Sheep Dip	A8 – Livestock dip E1 – asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.	**6 Locations** Three test pits are proposed around the outside of the structure and three hand augers within the structure itself, a narrow, concrete paver edged feature.	Test Pits & Hand Augers	1.0 m bgl	Test Pit samples are to be collected from: 0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl Hand Auger samples are to be collected from: 0.0 – 0.1 m bgl 0.5 m bgl	15	6	Metals, pesticides on all shallow 0.1m samples. Asbestos on three shallow 0.1m samples only. All 0.5m and 1.0m samples HOLD COLD.
Former bowling green	A10 – persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, or spray sheds	**6 Locations** Six test pits in the area of the former bowling green	Test Pits	0.5 m bgl	0.0 – 0.1 m bgl 0.5 m bgl	12	9	Three locations for metals/pesticides at 0.1 and 0.5m. Three locations for metals/pesticides at 0.1m only, 0.5m samples on HOLD COLD.
Former gardeners building (B59)		**10 Locations** Five test pits - two inside the building and three outside.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	15	10	Metals, Pesticides on all 0.1m and 0.5m samples. Asbestos on two external samples at 0.1m, one samples from 0.5m. 1.0m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Old tennis court		**3 Locations** Three test pits are proposed in the footprint of the old tennis court (TRF_TP01 to TP03).	Test Pits	0.5 m bgl	0.0 – 0.1 m bgl 0.5 m bgl	6	5	Metals, pesticides, asbestos on all 0.1m samples Metals and pesticides on two 0.5m samples.
Building 35		**14 Locations** Five test pits are proposed around the building footprint B35_TP01 to TP05 Four hand augers within the building footprint (B35_HA01 to HA04).	Test Pits & Hand Auger	1.0 m bgl	Test Pit samples are to be collected from: 0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl Hand Auger samples are to be collected from: 0.0 – 0.1 m bgl 0.5 m bgl	23	18	**Test pits** 0.1 and 0.5m – metals and pesticides Asbestos on 0.1m samples at TP01-TP04 and on 0.5m samples on TP02 and TP04. 1.0m HOLD COLD **Hand Augers** Metals and pesticides on all 0.1m samples, and on HA01 and HA03 at 0.5m. Asbestos on 0.1m samples at HA02 and HA04.
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Former Horticultural Growing Area (north of Building 34 and 35)		**30 Sample Locations** Six composite areas A-F, each with four sub-samples (24 sub-samples at three depths = 72 sub-samples) Two composite areas G &H each with three sub-samples (6 sub-samples at three depths = 18 sub-samples Each area's sampling will result in a composite sample representing shallow 0.1m, intermediate 0.5m and deeper 1.0m soils (e.g. Area A will have three composite samples)	Test Pits	1.0 m bgl	Sub-samples are to be collected from: 0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	90 sub-samples	24 composite samples	Metals and pesticides on all 0.1m and 0.5m composite samples. 1.0m HOLD COLD
Area south of glasshouses and horticulture area	A10 – persistent pesticide use including glass houses. E1 – asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.	**6 Locations** Six test pits are proposed in the southern area	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	18	13	Metals and asbestos – 0.1m and 0.5m samples at all locations 1.0m HOLD COLD SVOC – three locations in 0.1m and 0.5m samples. 1.0m HOLD COLD TPH and Pesticides – three locations, shallow 0.1m samples only.
Former Glasshouses – Building 34 Area		**7 Locations** Seven test pits are proposed within the former building footprint	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	21	14	Metals, pesticides on all 0.1m and 0.5m samples. Asbestos on 0.1m samples from TP03 and TP04.

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Old Morgue (B19)	A17 – storage tanks or drums for chemicals or liquid waste	**7 Locations** Two test pits around building perimeter	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	6	4	Metals on 0.1m and 0.5m samples. 1.0m sample on HOLD COLD.
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
New Morgue (B25)		**3 Locations** Three locations around the edge of the building	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	9	6	Metals on 0.1m and 0.5m. 1.0m HOLD COLD
Swimming pool (B57)		**6 Locations** A single test pit is proposed in the floor of the drum storage area.	Test Pit	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	3	2	Metals, SVOC, VOC in 0.1m and 0.5m samples. 1.0m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Concrete pad to the south of Building 3 (B3)		**2 Locations** Two test pits in the pad area	Test Pits	0.5 m bgl	0.0 – 0.1 m bgl 0.5 m bgl	4	2	Metals, TPH on shallow 0.1m samples. 0.5m HOLD COLD
Unknown Shed Building (B61)		**6 Locations** One test pit is proposed within the building.	Test Pit	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	3	1	Metals, TPH, SVOC, VOC on 0.1m sample. 0.5m and 1.0m samples HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Assistant Engineers Office (B66)		**6 Locations** One test pit in area of former storage and two hand augers around inspection bays	Test Pit and Hand Augers	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	7	6	**Test Pit** Metals, asbestos, TPH, PAH, BTEX on 0.1m samples. Metals and PAH on 0.5m samples. 1.0m sample HOLD COLD **Hand Augers** Metals, asbestos, TPH, VOC, SVOC on shallow 0.1m and 0.5m samples.
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Substation 1	B4 – Substations	**6 Locations** One test pit in the floor of this building (SB1_TP1).	Test Pit	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	3	2	Metals, TPH, PCB on 0.1m sample Metals, PCB on 0.5m sample (asbestos tested previously by AECOM)
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4m	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Substation 2		**8 Locations** Three test pits are proposed, two outside the building and one inside	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	9	6	**Inside Building** metals, TPH, PCB on 0.1m and 0.5m 1.0m HOLD COLD. **Outside Building** Metals, asbestos, TPH/PAH/PCB on 0.1m and 0.5m 1.0m HOLD COLD.
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Substation 3		**6 Locations** One test pit is proposed through the floor of the substation	Test Pit	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	3	2	Metals, TPH and PCB on 0.1m and 0.5m samples. 1.0 m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Substation 4		**8 Locations** Three test pits proposed around the building	Test Pits	1.0 m bgl in all test pits	0.0 – 0.1 m bgl 0.5 m bgl	6	6	Metals, asbestos, TPH, PAH, PCB on all 0.1m samples. TPH PAH on 0.5m samples. 1.0m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Substation 5		**6 Locations** One test pit is proposed through the floor of the substation	Test Pit	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	3	2	Metals, TPH and PCB on 0.1m and 0.5m samples. 1.0 m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Substation 6		**6 Locations** One test pit is proposed through the floor of the substation.	Test Pit	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	3	2	Metals, TPH and PCB on 0.1m and 0.5m samples. 1.0 m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Substation 7		**6 Locations** One test pit is proposed through the floor of the substation	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	3	2	Metals, TPH and PCB on 0.1m and 0.5m samples. 1.0 m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Substation 8		**10 Locations** One test pit is proposed through the floor. Four hand augers are proposed around the substation, one on each side of the building	Test Pit and Hand Augers	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	11	10	Metals, TPH, PCB on test pit for 0.1m and 0.5m samples. 1.0m HOLD COLD Asbestos only on all 4 hand augers for both 0.1m and 0.5m samples.
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Former petrol station and workshops (B16)	F4 – Motor Vehicle Workshops (B16 only) F7 – Service Station (B16 and B65)	**8 locations** Two test pits through the workshop floor. Two test pits in a small fly tipping area. Two test pits along the southern workshop boundary. One test pit to the east of the former forecourt. One test pit to the west of the workshop	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	18	14	**B16 Workshop** 0.1m and 0.5m: TPH, PAH, VOC 1.0m HOLD COLD **B16 Fly Tipping Area** 0.1m and 0.5m: Metals, Asbestos, TPH, PAH, VOC **B16 General Perimeter** TP04 0.1m Metals, Asbestos, TPH, PAH, VOC TP07 0.1m Metals, Asbestos, TPH, PAH, VOC. 0.5m asbestos only. TP08/09 0.1m and 0.5m TPH/PAH/VOC only (asbestos and metals analysed by AECOM)
tore and Former Fuel Area (B65)		**3 Locations** Three test pits are proposed around the forecourt and former tank pit. Deeper sampling required compared to B16, as the B16 fuel area is already well characterised from previous investigations. Not all elements of the fuel system were previous tested and B65 showed evidence of staining and vapours during the historical tank removal.	Test Pits	2.0 m bgl	Small Forecourt Area 0.0 – 0.1 m bgl 0.5 m bgl 1.5 m bgl Former Tank Pit 0.0 – 0.1 m bgl 1.0 m bgl 2.0 m bgl	9	9	All samples for, TPH, BTEX, PAH TP02 at 0.1m to be analysed for asbestos.
Small Incinerator (B67)	G6 – Waste or wastewater treatment	**7 Locations** Two hand augers to north and south of building	Hand Auger	0.5 m bgl	0.0 – 0.1 m bgl 0.5 m bgl	4	4	Metals, Asbestos, SVOCs on all samples. Dioxins on x2 shallow 0.1m samples only.
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Former Hospital WWTP		**4 Locations** Four test pits are proposed in this area in the southern half of the former WWTP	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	12	8	Metals, SVOC, asbestos on all 0.1m and 0.5m samples. VOC on 0.1m samples only. Remaining 0.5m and all 1.0m samples – HOLD COLD.
Former Ward 2	I – any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment. E1 – asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.	**9 Locations** Nine test pits across this large former building footprint.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl (4 locations only)	22	14	Metals and asbestos on all 0.1m samples Asbestos on five of the deeper 0.5m samples.
Former Sports Pavilion		**2 Locations** Two test pits in the former footprint.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	6	3	Metals, asbestos on both shallow 0.1m samples. Metals on one of the 0.5m samples. Remainder – HOLD COLD
Former school		**4 Locations** Four test pits in the former school footprint	Test Pits	0.5 m bgl	0.0 – 0.1 m bgl 0.5 m bgl	8	6	Metals, asbestos on all shallow 0.1m samples and on two of the 0.5m Remainder – HOLD COLD
Former chapel		**4 Locations** Four test pits across the footprint of the former chapel	Test Pits	0.5 m bgl	0.0 – 0.1 m bgl 0.5 m bgl	8	4	Metals, asbestos on all shallow 0.1m samples and on two of the 0.5m Remainder – HOLD COLD
Demolished Wards F		**3 Locations** Three locations within the footprints of the former building.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	9	4	All 0.1m samples for metals, asbestos One 0.5m sample for metals and asbestos. 1.0 m HOLD COLD
Demolished Wards G		**3 Locations** Three locations within the footprints of the former building.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	9	4	All 0.1m samples for metals, asbestos One 0.5m sample for metals and asbestos. 1.0 m HOLD COLD
Demolished Wards H		**3 Locations** Three locations within the footprints of the former building.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	9	4	All 0.1m samples for metals, asbestos One 0.5m sample for metals and asbestos. 1.0 m HOLD COLD
Former Nurses Home		**4 Locations** Four test pits are proposed across the former building footprint	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	12	6	All 0.1m samples for metals, asbestos Two 0.5m samples for metals and asbestos. 1.0 m HOLD COLD
Demolished Structure 1 (located north of substation 5)		**5 Locations** Five locations within the footprint of the former building	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	15	8	Metals, asbestos on all 0.1m samples. Metals, asbestos on three 0.5m samples. 1.0m HOLD COLD

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Demolished Structure 2 (located south of Building 26)		**5 Locations** Five locations within the footprint of the former building.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	15	8	Metals, asbestos on all 0.1m samples. Metals, asbestos on three 0.5m samples. 1.0m HOLD COLD
Demolished Structure 3 (located in paddock to east of WWTP)		**4 Locations** Four locations within the footprint of the former building.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	12	8	Metals, asbestos on all 0.1m and 0.5m samples. 1.0m HOLD COLD
Administration Building (B1) Male Toilet (B5) Shed 5 (B6) Ward D (B15) OCT No.1 (B17) Ward 6 Extension (B20) Ward 6 (B21) Rear Extension Ward 6 (B22) Ward 4 (B23) Ward 5 (B27) Ward 8 (B30) Shed 2 Toilet Block (B34) Hall (B36) Wooden Shed (B37) RFTD by Hall (B38) RFTD Shed (B39) Building 15 (B42) Building 13 (B44) Building 12 (B45) Building 11 (B46) Building 10 (B47) Ward 16 (B48) EDU (B51) Old House by EDU (B52) Ward 19 (B53) Water Tower (B54) Fitter (B60) Racks (B62) Garages (B71) Doctors Flat (B75)	These are not currently HAIL areas but may be reclassified depending on the results of the building halo assessment	Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Water Treatment (B7)	I – any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment	**7 Locations** Two locations in area of former infrastructure	Hand Auger	0.5m	0.1m and 0.5m	4	2	Metals and asbestos on both 0.1m samples. 0.5m HOLD COLD
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		

Location	HAIL Category	Number of Locations	Method	Max. depth of excavation (m bgl)	Proposed sampling depths (m bgl)	Total samples collected	No. Samples Analysed	Proposed sampling analytical schedule
Dentist (B8)		**6 Locations** One location at suspected discharge outlet pipe from building	Hand Auger	0.4 m bgl	0.1m and 0.4m	2	2	Metals and asbestos on 0.1m sample. Metals on 0.4m sample
		Five locations from 0.5m to 6.5m distance from building	XRF	0.4 m bgl	0.1m intervals	XRF measurement of metals with matched soil samples for lead at a rate of 1 in 10 readings		
Discharge Outlet Near Building 71		**2 Locations** Two test pits are planned in the drainage area	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	6	4	Metals, TPH, SVOC, VOC on 0.1m and 0.5m samples. 1.0m HOLD COLD
North West Soil Disturbance Area (located immediately north of former Ward F and Ward G)		**4 Locations** Four test pits across the area.	Test Pits	1.0 m bgl	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl	12	6	Metals, asbestos and SVOC on all 0.1m samples. Metals, asbestos and SVOC on two of the 0.5m samples. 1.0m HOLD COLD
Workshops Building (B63)		**3 Locations** One test pit in the area of sawdust on the west side of the Building 63 Two test pits in the former area of long term fly tipping which was recently cleared	Test Pits	1.0 m bgl.	0.0 – 0.1 m bgl 0.5 m bgl 1.0 m bgl (Workshop only)	7	3	**B63 Workshop/ Sawdust Area** Metals and SVOC on 0.1m sample 0.5m and 1.0m sample HOLD COLD **B63 Fly tipping area** Metals, asbestos, TPH, PAH, VOC on 0.1m sample. 0.5m sample HOLD COLD.
Sediment								
WWTP discharge pipes	G6 –wastewater treatment	**2 Locations** Two sediment samples have been proposed in this area	Sediment core multisampler	0.5 m bgl	0.0 – 0.1 m bgl 0.5 m bgl	4	4	All samples tested for metals, SVOC, VOC, TOC and pH
Wharekōrino Stream	H – Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment	**5 Locations** Five sediment sampling locations along the Wharekōrino stream have been selected		0.3 m bgl	0.0 – 0.1 m bgl 0.3 m bgl	10	10	All samples tested for metals, TPH, SVOC, VOC, Pesticides, TOC and pH
Hospital Stormwater discharge		**4 Locations** Four sediment sampling locations along the stormwater discharge streambed have been selected		0.3 m bgl	0.0 – 0.1 m bgl 0.3 m bgl	8	8	All samples tested for metals, TPH, pesticides, SVOC, VOC, TOC and pH

7. Field sampling methodology

7.1 HSE

Health and safety during field works on the Site will be managed in accordance with the Job Safety Environmental Analysis (JSEA) prepared for the work and LINZ requirements – it is therefore not discussed further in this document.

7.2 Fieldwork documentation

Field activities will be recorded to maintain a record of all field activities including any observations made at each sample location. These will be captured within a test pit log for each location. Specifically, the logs will include:

- Date.
- Personnel undertaking the work.
- Sample method.
- Description of the lithology of the excavation.
- Description of any indicators of contamination encountered (or lack thereof).
- Unique sample identification.
- Headspace reading taken by a Photo-ionisation detector (PID), where volatile analysis is proposed or volatile contamination potentially present (using appropriate lamps to align with the contaminants of concern as discussed in Section 5).
- Any QA/QC sampling undertaken.

7.3 Soil Sampling & Monitoring Methodology

7.3.1 General Soil Sampling

Soil sampling is to be undertaken under the following procedures:

- All field work must be completed in compliance with the project specific Job Safety and Environmental Analysis plan.
- Underground services in the vicinity of the sampling locations are to be initially assessed by consulting Site supplied service plans. All sampling locations are subsequently to be scanned using a Subsurface Service Locator and all locations are to be approved by a GHD Technical Director who will issue a GHD ground penetration permit prior to excavation.
- A PID will be used to field screen samples for volatile contaminants at all locations where volatile analysis is proposed or volatile contamination potentially present, using a headspace test method. PIDs can be fitted with lamp/bulbs that vary in ionisation energy, normally measured in 'eV'. These are typically 10.6eV, however 11.7eV lamps are also available. The correct bulb needs to be used to detect the contaminant of interest. PIDs typically measure at parts per million level, however as some of the contaminants of concern are solvents, a more sensitive parts per billion PID will be required.

Soil samples will be collected either by test pit with a mechanical excavator (in accessible areas) or by hand auger (in areas too difficult to access with an excavator). Test Pit samples will be collected by hand from the bucket of the excavator ensuring soil sampled has not been in contact with the bucket itself. A fresh pair of nitrile gloves will be used for each separate sample collection.

- Hand dug samples will be collected by either shovel or hand auger direct into sample jars. Between each location, the shovel or hand auger will be washed with a decontamination solution.
- Samples will be typically collected near surface (0.1m), at 0.5m and at 1.0m. The exact depth may vary and will depend on observations and ground conditions, so sample depths may be slightly shallower or deeper. In

areas with known deeper sources, such as underground fuel tanks or areas of suspected historical solvent use, samples will be collected at 1.5m-2.0m and potentially deeper, depending on field observations.

– Samples will be placed into laboratory supplied containers and then placed in an iced chilly bin and couriered to Hills Laboratories in Hamilton with a chain of custody document.

7.3.2 XRF Methodology

Measurements will be made using field portable XRF, in situ, at scan energies of 15 and 40 keV.

For consistency with the previous AECOM DSI investigation (AECOM, 2019), field screening will be completed at 0.5, 1.5, 2.5, 3.5 and 6.5 m distances along transects set out perpendicular to each building. Field screening will also be completed at 100 mm depth increments at the 0.5 m distance.

XRF results will be corrected based on the matched laboratory results using a best fit regression method. XRF Quality Assurance/Quality Control is detailed in Section 7.8.

7.3.3 Composite sampling – Grazing Areas

Each grazing area block will be sampled by HAIL Environmental Ltd using the Fonterra DDT soil sampling protocol (Fonterra, 2010), which calls for a composite formed in the field from at least 30 soil plugs collected in a Z-pattern using a 37.5 mm push sampler. These composite samples will be analysed for standard metals and OCP suites plus pH and, for the COMP10 area, mercury. Quality control will be lab-based only – this sampling protocol obviates the need for field replicates.

7.3.4 Composite Sampling – Horticulture Areas

Composite areas A-H will be sampled by GHD using an excavator and with soil samples collected from each test pit at 0.1m, 0.5m and 1.0m (these are indicative and will be adjusted in the field to make sure they of the same soil type and similar depth). Sub-samples will be sent to laboratory for compositing as required under CLMG No.5 (as per Section 5.4.3.

7.4 Sediment Sampling

Sediment samples are to be collected using a sediment multisampler between 0 and 0.3 m below sediment surface. This enables the collection of an undisturbed sediment core sample in a transparent tube. The sampling tube is to be decontaminated between samples to prevent cross contamination. Decontamination will be as per the equipment sampling manual. This involves an initial rinse with large quantities of clean water, followed by cleaning with isopropyl alcohol. A fresh pair of nitrile gloves will be used for each separate sample collection.

7.5 Sample Labelling & Handling

– All samples will be given a unique identification code during field works, based on the building numbering system used by LINZ.
– Discreet soil samples will be labelled using the following methodology:
  - Building ID_Location ID_ Sample depth
  - For example, a sample collected from Building 19 from test pit TP01 at a depth of 0.1 m bgl will be labelled "B19_TP01_0.1m".
– Field composite soil samples will be labelled as detailed in Section 5.4.3.
– All samples will be dispatched to the laboratory under chain of custody procedures using laboratory supplied courier stickers.

7.6 Equipment Required

The following field equipment is required in aid of sample collection:

– Hand Trowel, Hand Auger and Shovel – in select locations, samples are to be collected by the utilisation of hand tools. All tools to be decontaminated with decontamination solution between sample locations.
– Sediment multisampler – to obtain sediment samples from multiple depths within the sediment profile.
– Photo Ionisation Detector – to record volatile organic compounds headspace readings in parts per million (ppm) or parts per billion (ppb, for certain solvents).
– XRF instrument – for measuring metal concentrations in soil.

All field equipment used for data collection shall be calibrated prior to the commencement of field works by the supplier. Providers of rental equipment will be requested to supply calibration certificates with rental equipment.

7.7 Unanticipated contamination

The following unexpected contamination indicators may be observed in soil, including but not limited to:

– Visual (buried refuse, metal objects, fibrous cement board, building material, soil or water staining/bleaching or discolouration).
– Olfactory (hydrocarbons, sulphurous, rotting vegetation or sewage).
– Auditory (gas leaks, flowing or dripping liquid).'
– Results of field screening (PID levels, XRF results).

If any of these indicators are observed, field staff should cease work and make the area safe. Field staff should call the GHD SQEP/Project Manager and LINZ to discuss the situation and will not recommence works until approval is provided by LINZ. Staff may be required to implement additional HSE controls, which may include additional PPE.

7.8 Quality Assurance and Quality Control

7.8.1 Quality assurance procedures

The quality assurance and quality control (QA/QC) programme undertaken as part of the assessment by GHD included the following:

– Use of appropriately qualified and trained staff
– Preservation of samples with ice during transport from the field to the laboratory
– Transportation of samples to the laboratory with accompanying chain-of-custody documentation
– Compliance with sample holding times - these are:
  - Metals – 6 months
  - VOCs (includes BTEX/TPH) – 14 days
  - SVOCs (includes PAHs) – 14 days until sample extraction, 40 days after sample extraction
– Review of results of field duplicate samples
– All laboratory analysis will be undertaken by IANZ accredited laboratories

7.8.2 Laboratory Quality Assurance

Hill Laboratories Limited (Hills) have been selected to perform all primary and duplicate analysis for the DSI. Hills is IANZ accredited for all the analytical methods required during this DSI and can provide all data in a suitable format. An alternate IANZ accredited laboratory will be utilised for triplicate (inter-laboratory duplicate) samples.

Following collection, all samples will be placed directly into iced storage and transported under standard chain of custody procedures to the laboratory for analysis so that samples are analysed within the appropriate holding times for each analyte.

The laboratory testing schedule has been prepared based on typical contaminants of concern associated with the identified HAIL activity. This schedule will be reviewed as field work progresses and as analysis is being scheduled (also considering field observations). Any proposed changes will be discussed and agreed with LINZ prior to proceeding.

The laboratory reports will be issued in accordance with IANZ requirements and include:

– The Chain of Custody forms including arrival temperature and sample condition
– Analytical results of the samples
– Results of any laboratory undertaken quality control analysis (in-house duplicates)
– Extraction method (where undertaken) and dates in accordance with holding times.

7.8.3 Reporting Quality Assurance

Updates to the SAP

The SAP is intended to be a live document. As changes are made a new version is issued. Version numbers and dates of issue are listed on the signature page of this report. Once the DSI field work is complete, any departures from the SAP should be discussed in the DSI report. Typical departures to be highlighted in the DSI report may be areas where the target depth could not be reached or where additional chemical analytes were added to the laboratory testing due to an unexpected area of contamination during field work.

The DSI and Site Specific Risk Assessment Reports

The data obtained in this investigation will be compiled into a Detailed Site Investigation in accordance with CLMG 1 and CLMG 5 as required in the THDSP Subpart B, Section 9.4. This SAP will be included within the DSI report as an appendix.

The DSI report will be completed by GHD and will include the first parts of the recommended table of contents in Appendix A5 of CLMG1, these being:

– Introduction
– Site Description
– Historical Site Use
– Sampling & Analysis Methodology
– Field Results – summary of field works, field observations, tabulated laboratory results and laboratory QC

The Site Specific Risk Assessment report will be completed by HAIL Environmental and will include interpretation of the DSI data including statistical analysis, derivation of remedial standards in accordance with the THDSP, an updated conceptual site model and risk assessment. This will follow the process discussed in Section 5.3 and as set out in the NES CS Methodology document (Ministry for Environment , 2011a).

7.8.4 Quality Control

Duplicates

Field duplicates will be collected to evaluate the precision of reported results. The collection of primary and duplicate samples will be completed at a ratio of one duplicate per twenty primary samples (1:20). The duplicate samples will be stored in separate containers and submitted for analysis to the laboratory as separate samples for QC purposes. The duplicate samples will be selectively analysed for metals and TPH/PAH only.

Triplicates (inter-laboratory duplicates)

A triplicate sample to be sent to an alternate IANZ accredited laboratory to evaluate accuracy of reported results from Hills. One triplicate per batch of samples will be sent for analysist to the alternate IANZ accredited laboratory. The triplicate samples will be selectively analysed for metals and TPH/PAH only.

Relative percentage difference

A quantitative measure of the precision and accuracy of the analyses will be made using calculated relative percentage difference (RPD) values between primary samples and duplicate samples (precision) and primary samples and triplicate samples (accuracy). The RPD values will be calculated using the following equation.

$$\text{RPD (\%)} = \frac{\langle Co - Cs \rangle}{\left\langle \frac{Co + Cs}{2} \right\rangle} \times 100$$

Where Co = concentration obtained from the original sample

Cs = concentration obtained from the duplicate sample

The usual acceptance criteria within the CLMG (No.5) for RPDs is between 0 and 30% in soils (rising to 50% for trace SVOCs). However, a large percentage differential can occur particularly in soils due to the following:

- A small analytical differential between two samples based on the low levels of detection from the primary and duplicate soil sample; and
- Samples analysed in soil collected from non-homogenous (heterogeneous) soil profile.

The relative percentage difference (RPD) values for the duplicate samples collected will be analysed during this investigation.

Rinsate Blanks

Rinsate blanks will be collected daily on any sampling equipment utilised at multiple locations to provide an indication of the potential for cross-contamination between samples due to poor decontamination procedures.

XRF

Extensive quality assurance and quality control (QAQC) will be implemented, including:

– The user will be under the supervision of a Suitably Qualified and Experienced Practitioner (SQEP) with particular expertise in field XRF.
– A soil foot will be used to reduce handling effects. Grass cover will be removed and the surface to be scanned will be smoothed using a non-metallic tool.
– Soils will be logged to New Zealand Geotechnical Society standard. Soils that are predominantly gravel, or with visible paint chips or other obvious contaminant particles, will not be scanned. Scans of soils differing significantly from the site norm will be flagged and may be rejected in processing.
– The user will aim for a consistent moisture content. Wet soils will not be scanned and XRF measurements will not be made in rain. However, it is not envisaged that soils will be dried for analysis.
– A modern instrument with low detection limit will be used (boilerplate rated to 2 mg/kg lead by the manufacturer).
– A consistent scan duration of 20 seconds per beam will be used.
– A blanks and two standard reference materials will be scanned at the beginning and end of the field session and at each change of battery.
– If arsenic (a potential interferent) is measured at a concentration significantly greater than lead, that measurement will be flagged and may be rejected in processing.
– Replicate measurements will be made at a minimum of 1 in every 10 measurements.
– If replicate performance is poor, scanning will be undertaken ex situ in plastic bags with mixing.
– As XRF is a semiquantitative technique, matching soil samples will be collected for laboratory analysis for lead (and other heavy metals if they are observed to be significantly elevated) at a rate of 1 in every 10 measurements, selecting from the lower, middle and upper range of concentrations encountered.
– The user will hold a current radiation user license and the instrument will hold a current source license. Safety controls will be implemented and the user will wear an electronic badge dosimeter that is checked daily.

8. Suitably Qualified and Experienced Practitioner (SQEP) Statement

8.1 GHD SQEP

8.1.1 Mark Ballard – CEnvP-Site Contamination (CEnvP-SC)

Mark Ballard is the GHD Technical Director for the project. Mark is a CEnvP-SC (#41175) under the Environment Institute of Australia and New Zealand (EIANZ) Certified Environmental Practitioner programme. He has 21 years' experience working on contaminated land and hydrogeological investigations and acts as the SQEP of this report.

8.2 HAIL Environmental Review

Dr. Dave Bull of HAIL Environmental has acted as a third-party reviewer of this report. Dave is a CEnvP-SC (#40026), as well as a Chartered Chemist. He has a Ph.D in Environmental Science and 25 years of professional experience including 17 years in contaminated land consulting in New Zealand and England.

9. Limitations

This report: has been prepared by GHD for Toitū Te Whenua - Land Information New Zealand and may only be used and relied on by Toitū Te Whenua - Land Information New Zealand for the purpose agreed between GHD and Toitū Te Whenua - Land Information New Zealand as set out in section 1.4 of this report.

GHD otherwise disclaims responsibility to any person other than Toitū Te Whenua - Land Information New Zealand arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the Statement of Work (N00457) and are subject to the scope limitations set out in the underlying agreement with LINZ.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The SAP does not include the Existing Disposal Sites to the east of the Wharekōrino Stream, which are being investigated by Fraser Thomas Ltd as part of a separate report (Fraser Thomas, 2022).

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Appendices

Appendix A

Site location maps

Paper Size ISO A3
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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

Land Information New Zealand
Former Tokanui Hospital

Site Location

Project No. 12559090
Revision No. F
Date 05/10/2023

FIGURE A1

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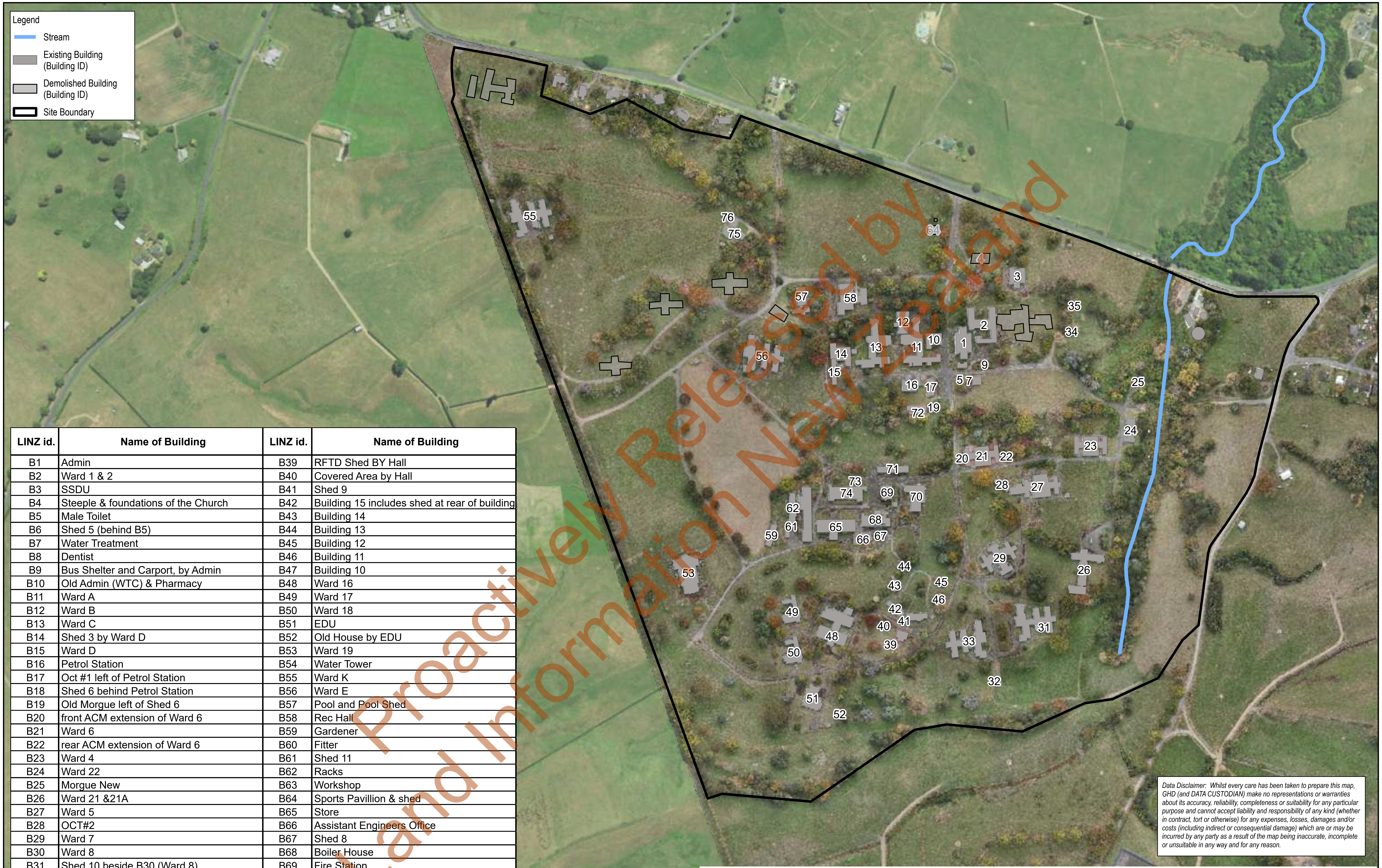
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors
World Hillshade: Esri, USGS, LINZ.



LINZ id.	Name of Building	LINZ id.	Name of Building
B1	Admin	B39	RFTD Shed BY Hall
B2	Ward 1 & 2	B40	Covered Area by Hall
B3	SSDU	B41	Shed 9
B4	Steeple & foundations of the Church	B42	Building 15 includes shed at rear of building
B5	Male Toilet	B43	Building 14
B6	Shed 5 (behind B5)	B44	Building 13
B7	Water Treatment	B45	Building 12
B8	Dentist	B46	Building 11
B9	Bus Shelter and Carport, by Admin	B47	Building 10
B10	Old Admin (WTC) & Pharmacy	B48	Ward 16
B11	Ward A	B49	Ward 17
B12	Ward B	B50	Ward 18
B13	Ward C	B51	EDU
B14	Shed 3 by Ward D	B52	Old House by EDU
B15	Ward D	B53	Ward 19
B16	Petrol Station	B54	Water Tower
B17	Oct #1 left of Petrol Station	B55	Ward K
B18	Shed 6 behind Petrol Station	B56	Ward E
B19	Old Morgue left of Shed 6	B57	Pool and Pool Shed
B20	front ACM extension of Ward 6	B58	Rec Hall
B21	Ward 6	B59	Gardener
B22	rear ACM extension of Ward 6	B60	Fitter
B23	Ward 4	B61	Shed 11
B24	Ward 22	B62	Racks
B25	Morgue New	B63	Workshop
B26	Ward 21 &21A	B64	Sports Pavillion & shed
B27	Ward 5	B65	Store
B28	OCT#2	B66	Assistant Engineers Office
B29	Ward 7	B67	Shed 8
B30	Ward 8	B68	Boiler House
B31	Shed 10 beside B30 (Ward 8)	B69	Fire Station
B32	Shed 4	B70	Kitchen
B33	Ward 9	B71	Garages
B34	Shed 2 Toilet Block	B72	Shed hidden in trees behind B18 (Shed 6)
B35	Shed 1, by SSDU	B73	Shed 7 by Laundry
B36	Hall	B74	Laundry
B37	Wooden Shed behind hall	B75	Doctors Flats (OCCUPIED)
B38	RFTD by Hall	B76	Doctors Flats Garages

Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3
0 40 80 120 160
Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

Site Buildings

Project No. **12559090**
Revision No. **D**
Date **06/07/2023**

FIGURE A2

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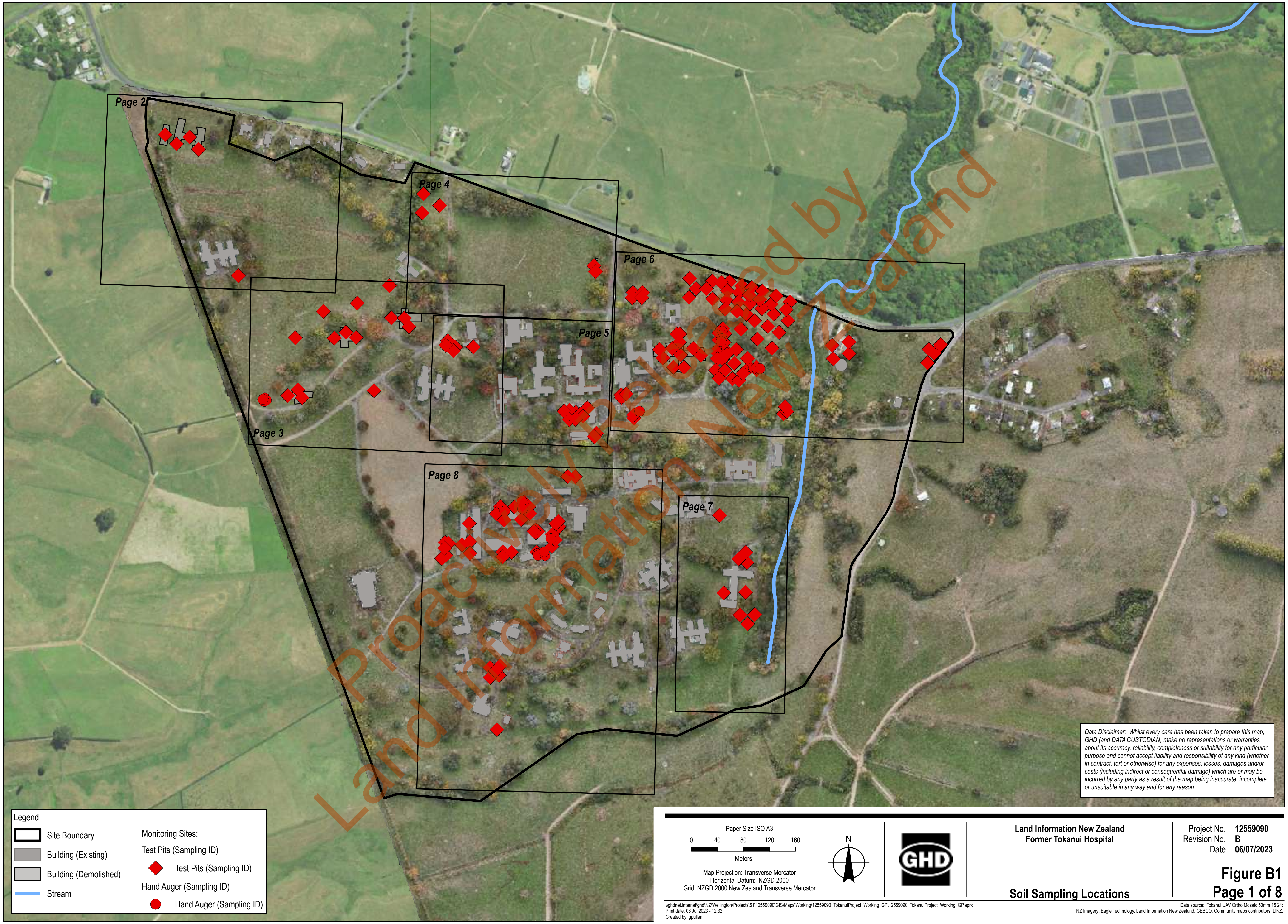
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.

Appendix B

Sampling locations



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Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

GHD

Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

Figure B1
Page 1 of 8

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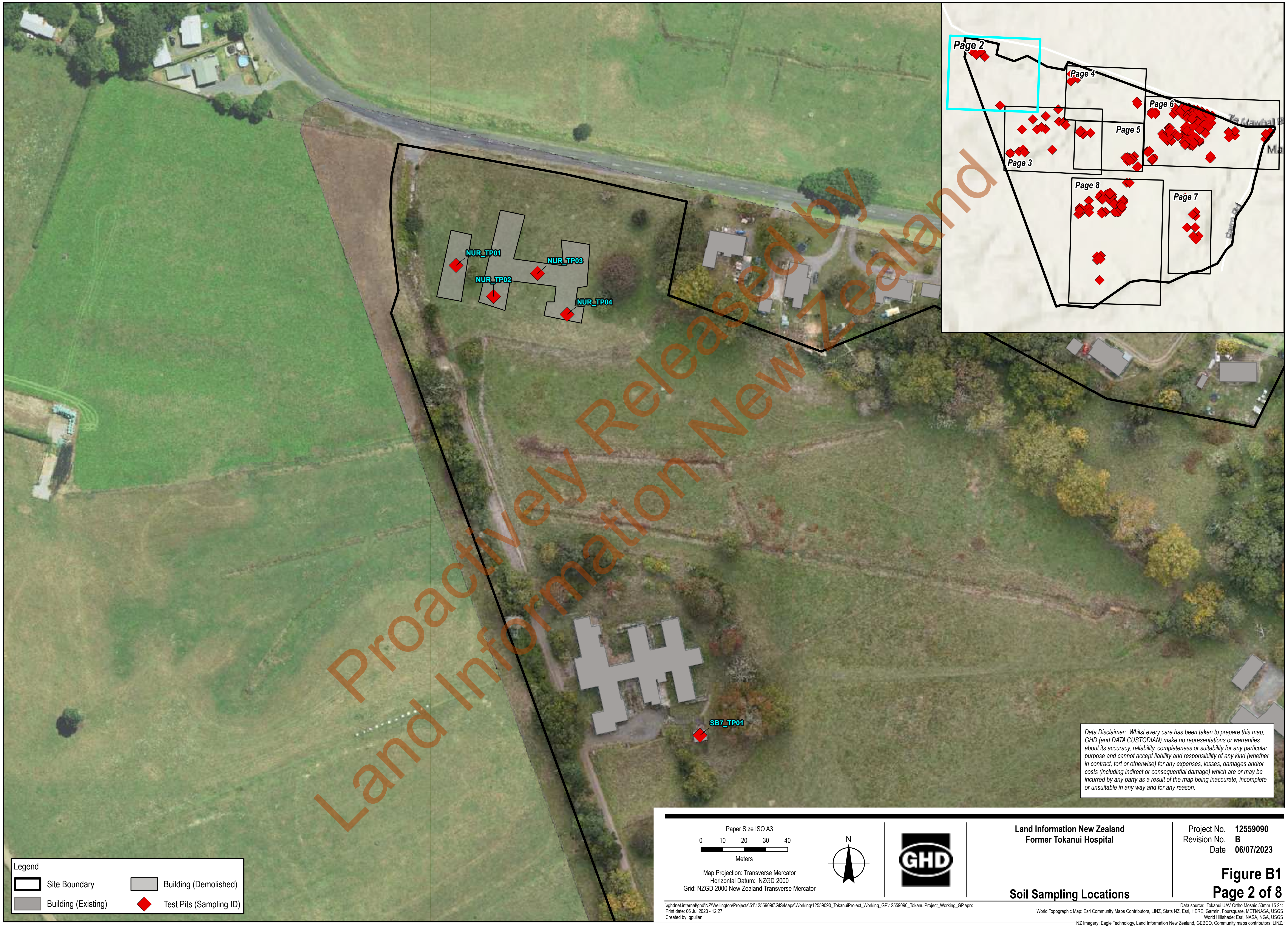

Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3
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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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GHD

Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

Figure B1
Page 2 of 8

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Created by: gpullan

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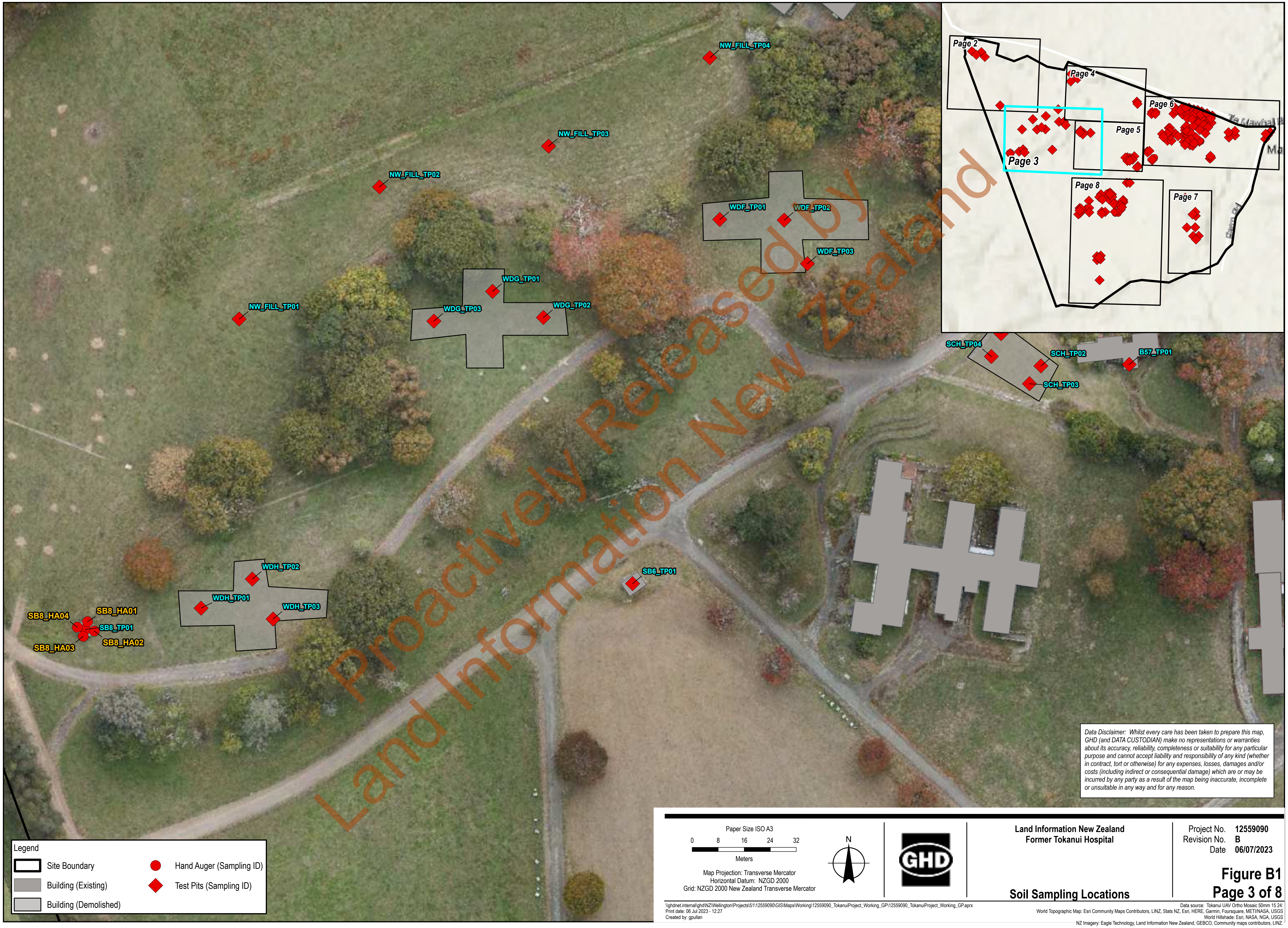
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.



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Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

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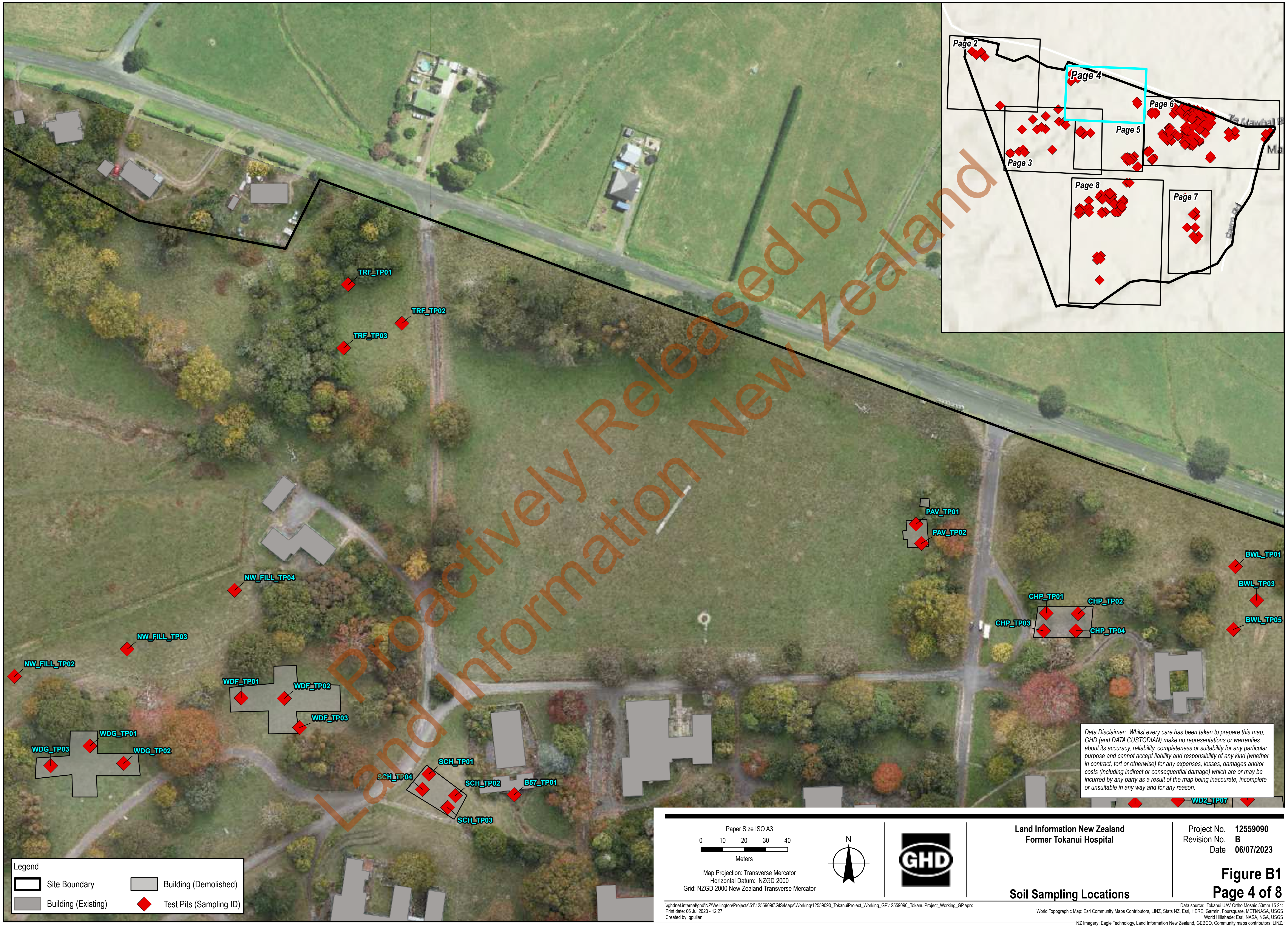
Print date: 06 Jul 2023 - 12:27
Created by: gpullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15 24:
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.



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Paper Size ISO A3

0 10 20 30 40

Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

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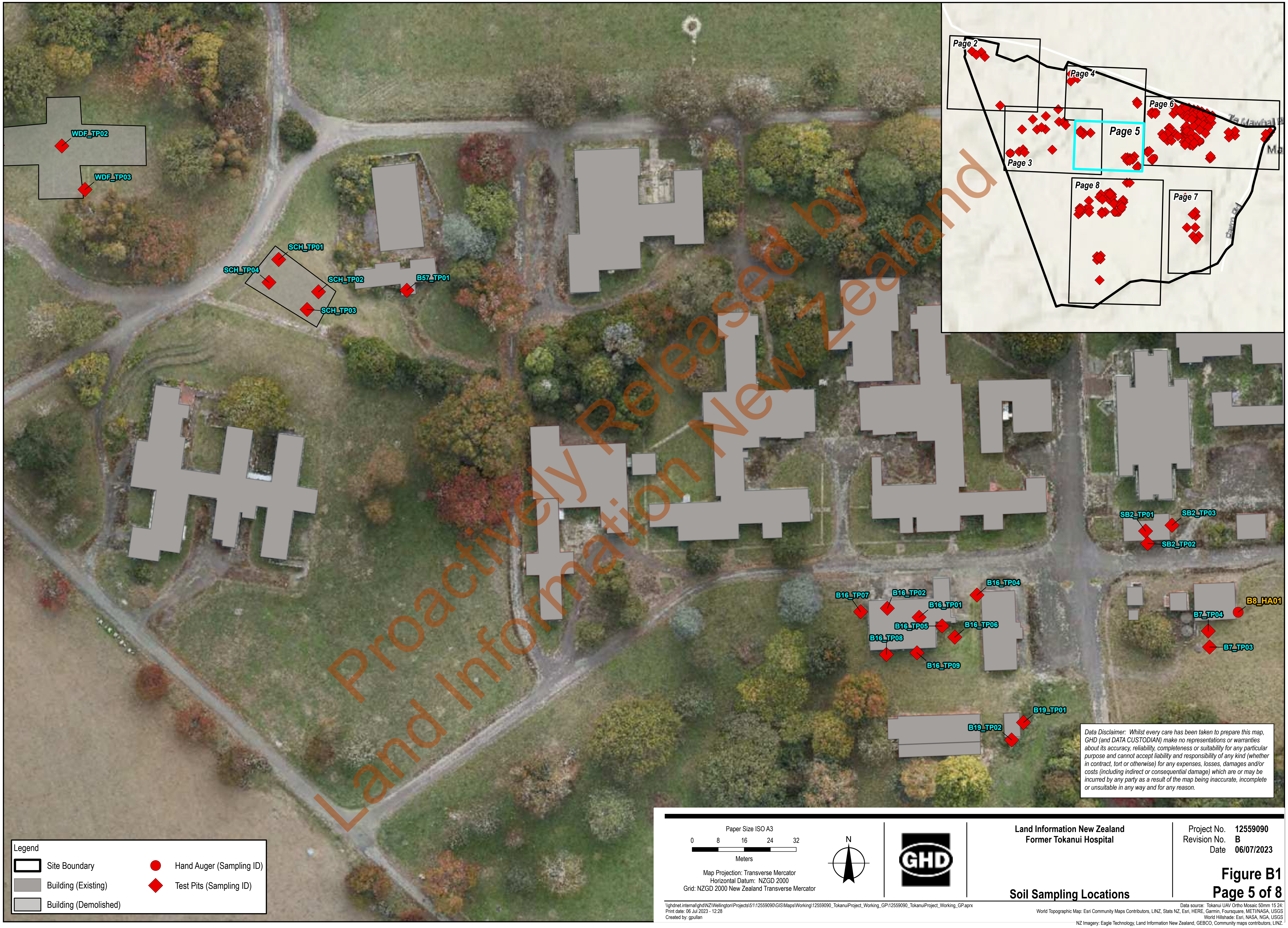
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.



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Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. 12559090
Revision No. B
Date 06/07/2023

Figure B1
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Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. 12559090
Revision No. B
Date 06/07/2023

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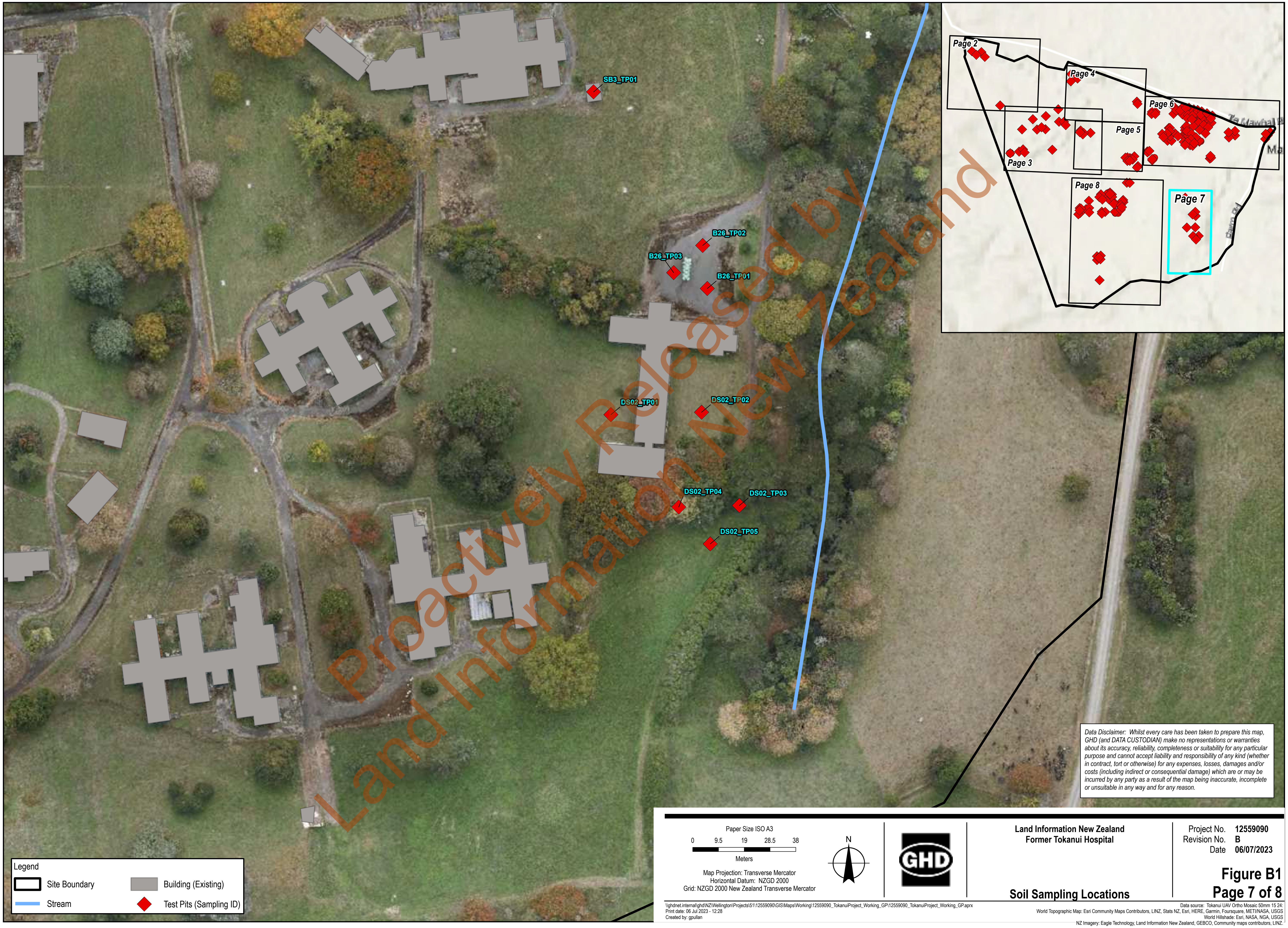

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Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

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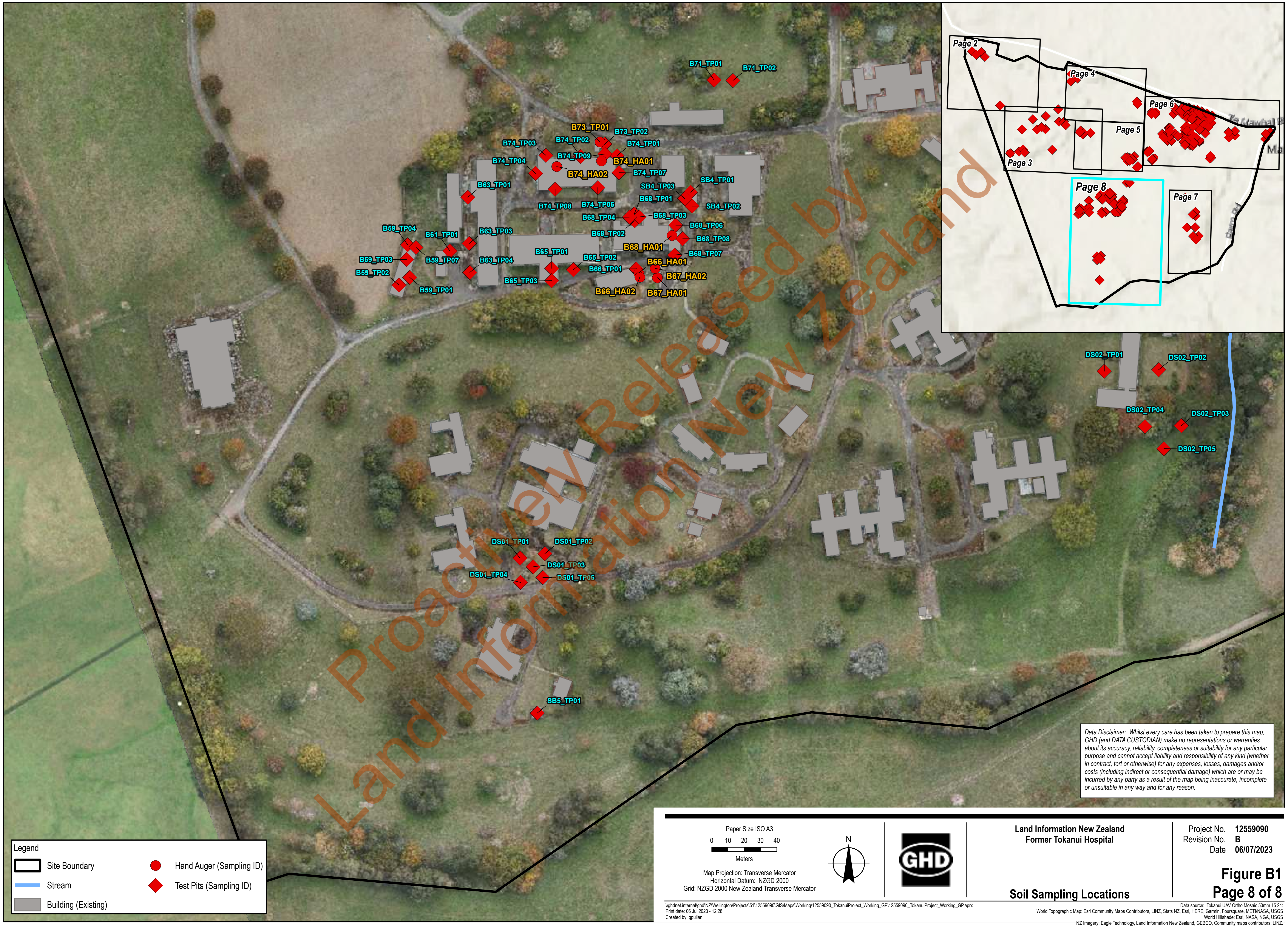

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Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. 12559090
Revision No. B
Date 06/07/2023

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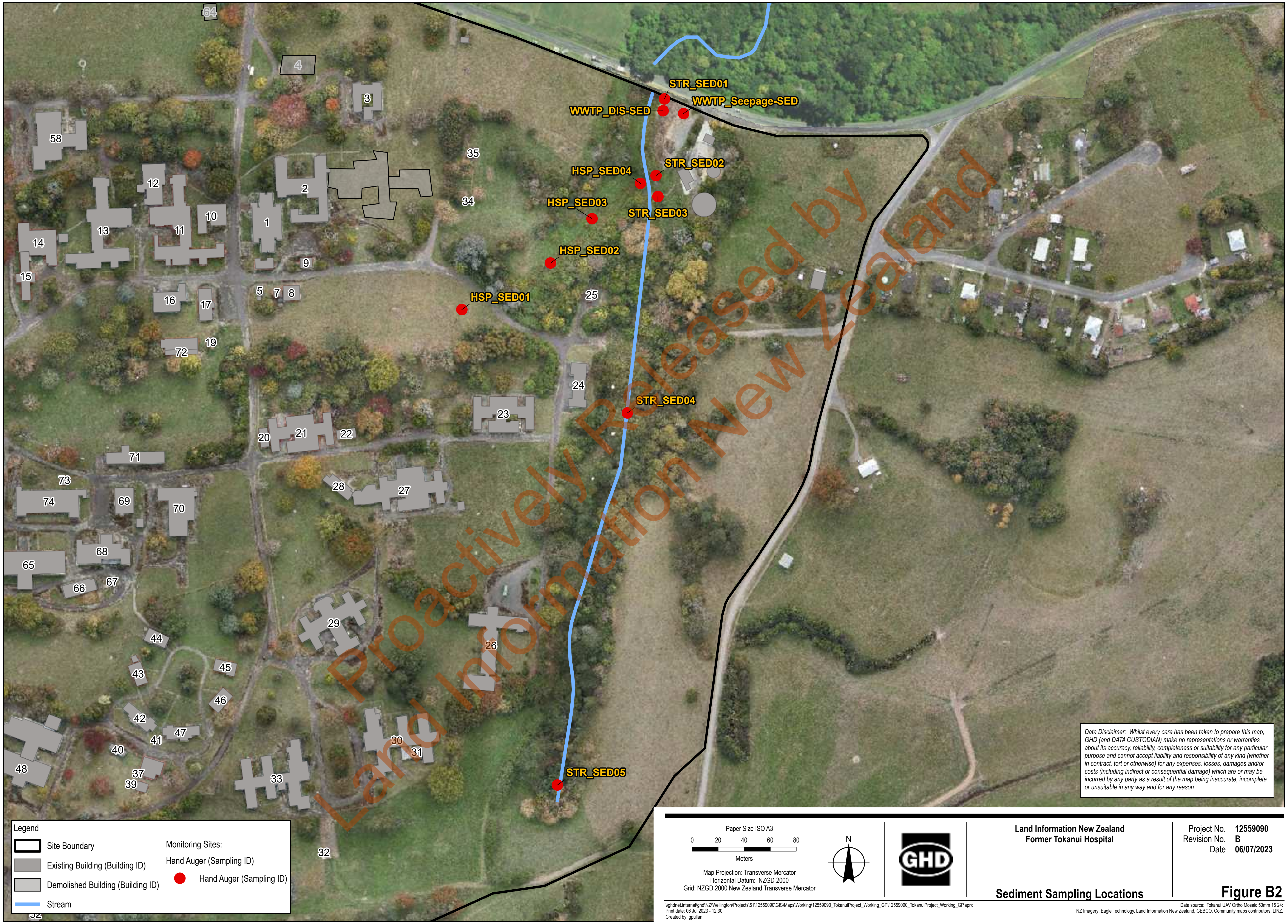

Paper Size ISO A3

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Former Tokanui Hospital

Sediment Sampling Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

Figure B2

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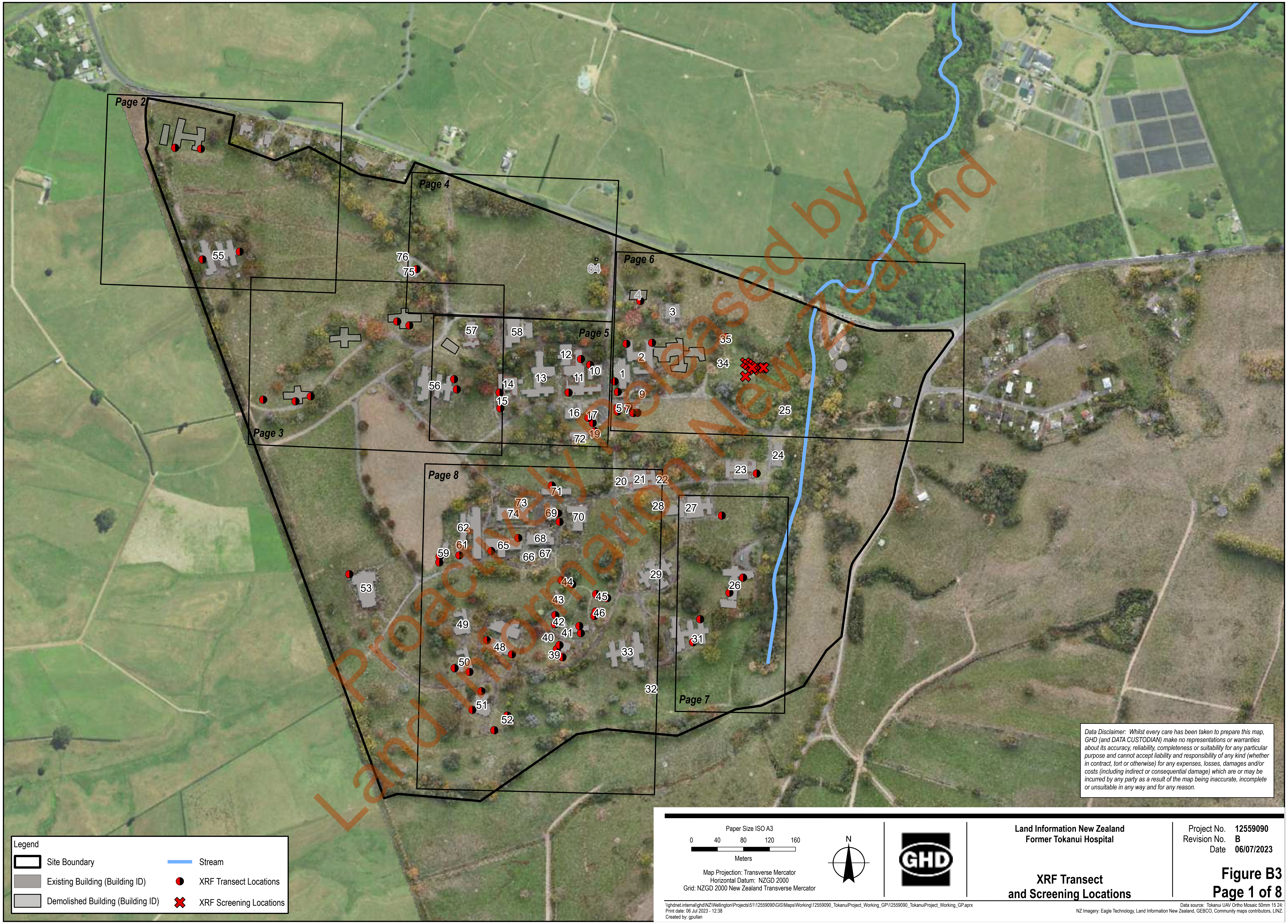

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Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. 12559090
Revision No. B
Date 06/07/2023

Figure B3
Page 1 of 8

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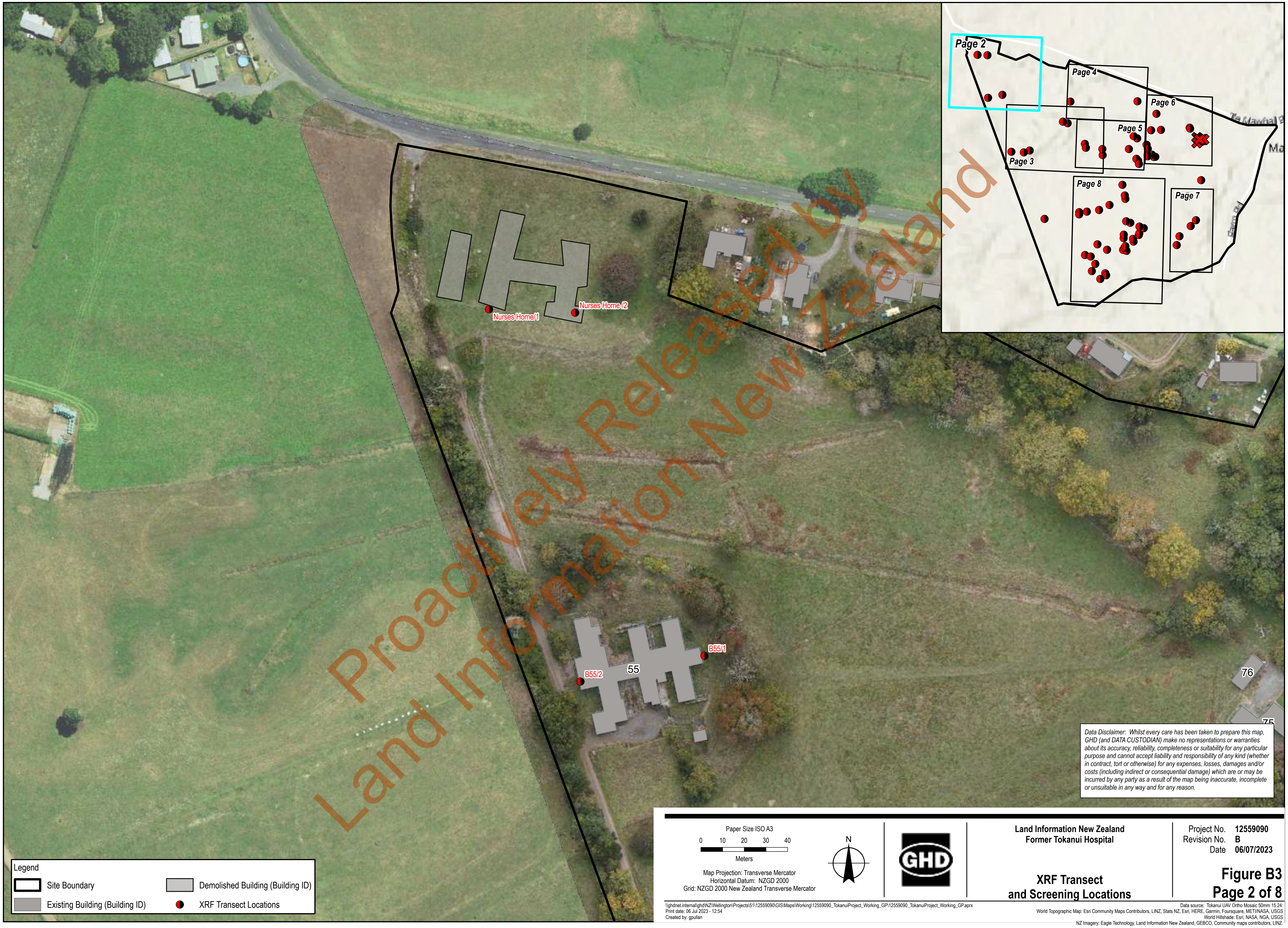
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.



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Paper Size ISO A3
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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

Figure B3
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World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.

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Legend
- Site Boundary
- Existing Building (Building ID)
- Demolished Building (Building ID)
- XRF Transect Locations

Paper Size ISO A3
0 8 16 24 32
Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

Land Information New Zealand
Former Tokanui Hospital

XRF Transect
and Screening Locations

Project No. 12559090
Revision No. B
Date 06/07/2023

Figure B3
Page 3 of 8

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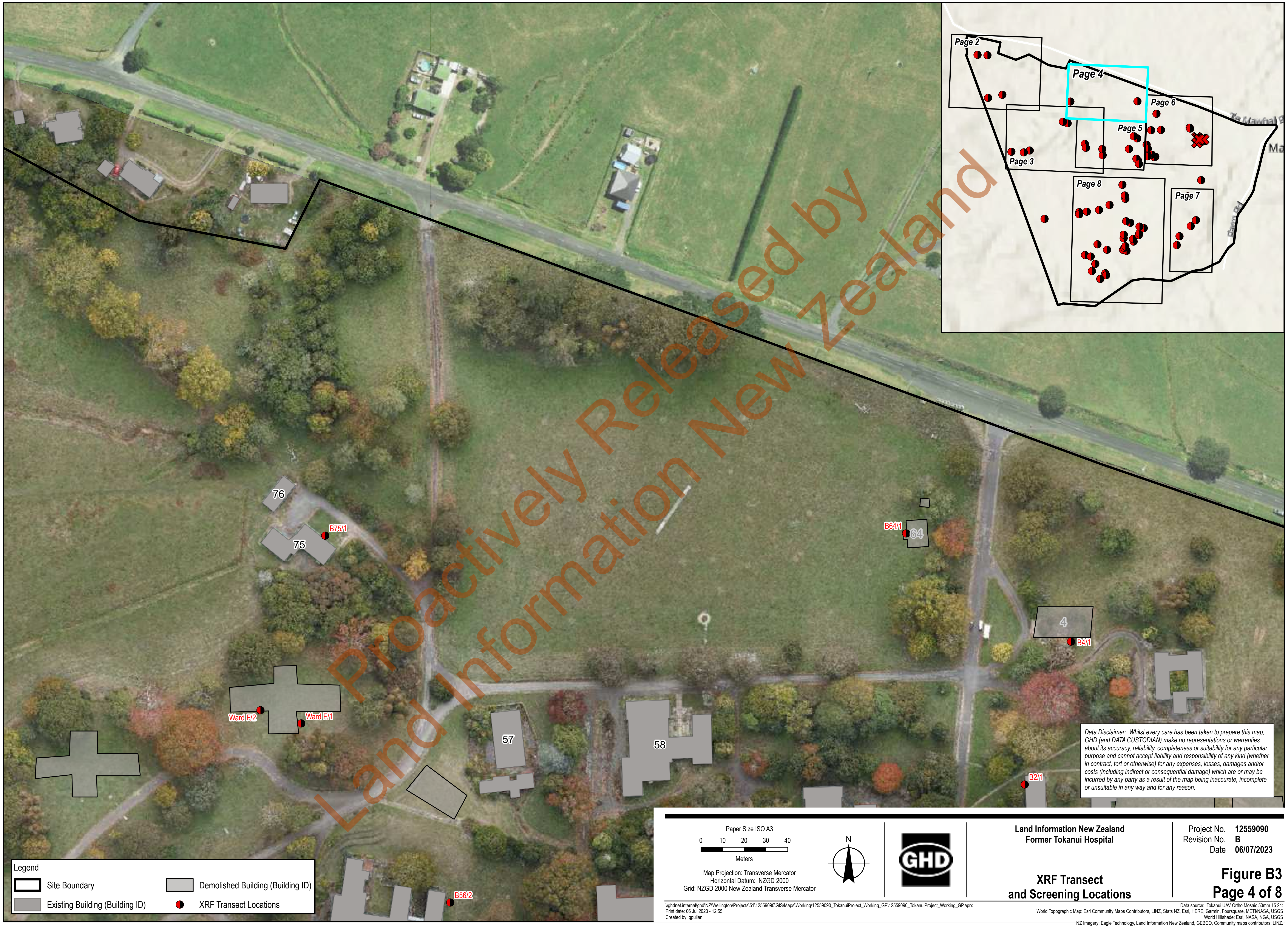
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.



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Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

XRF Transect
and Screening Locations

Project No. 12559090
Revision No. B
Date 06/07/2023

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World Hillshade: Esri, NASA, NGA, USGS
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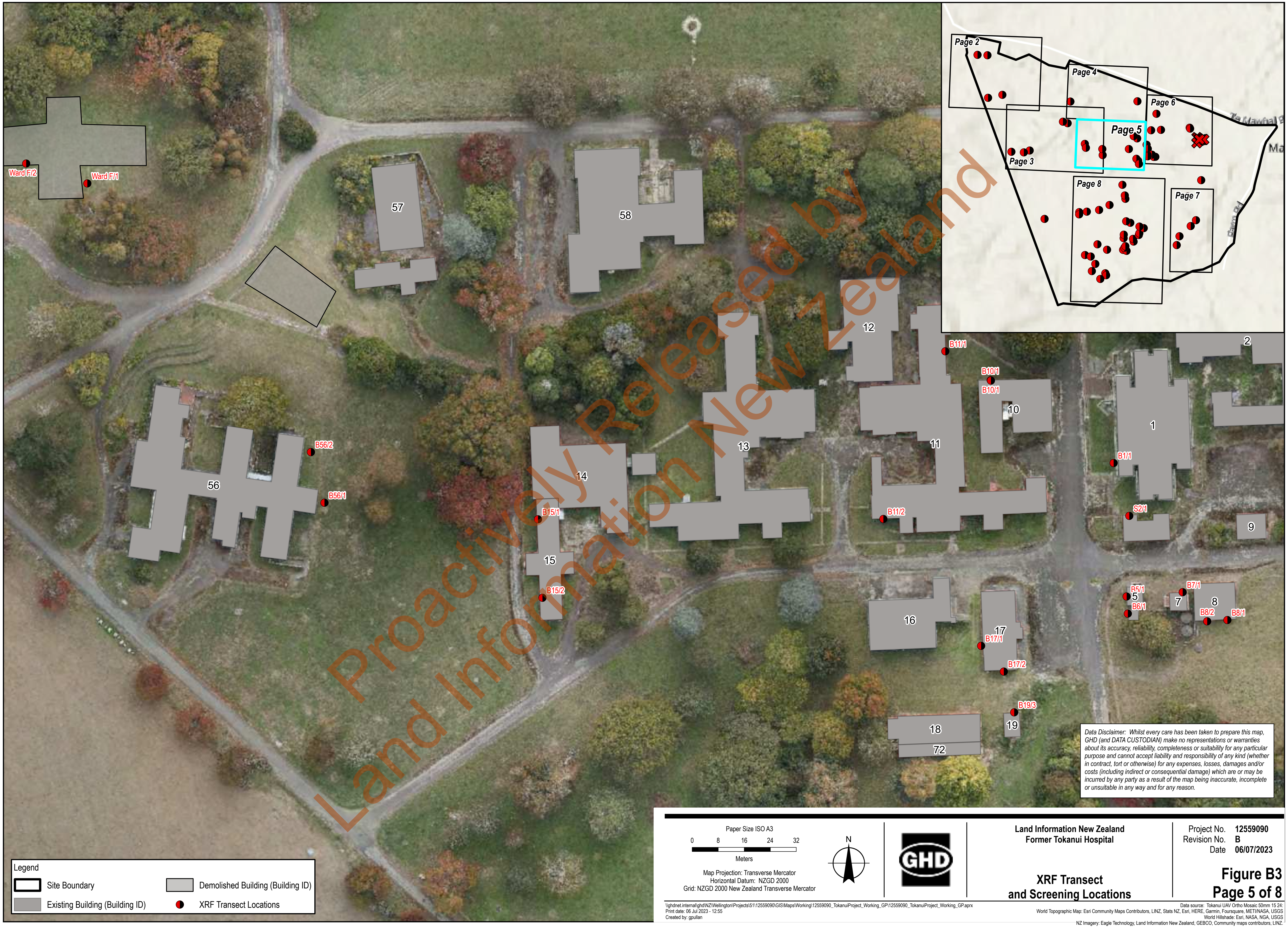

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Paper Size ISO A3
0 8 16 24 32
Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

Figure B3
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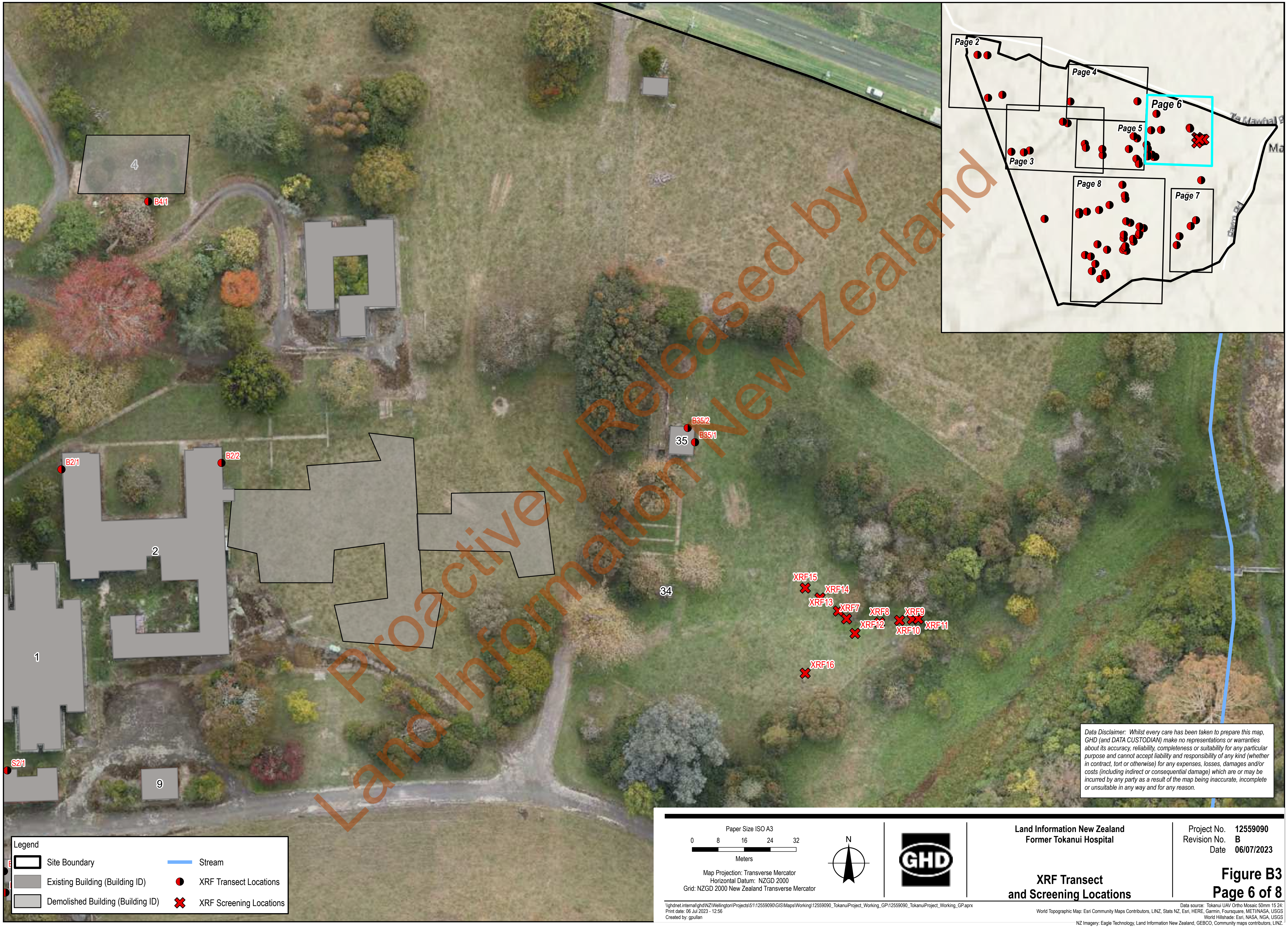
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.



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Paper Size ISO A3

0 8 16 24 32

Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

Figure B3
Page 6 of 8

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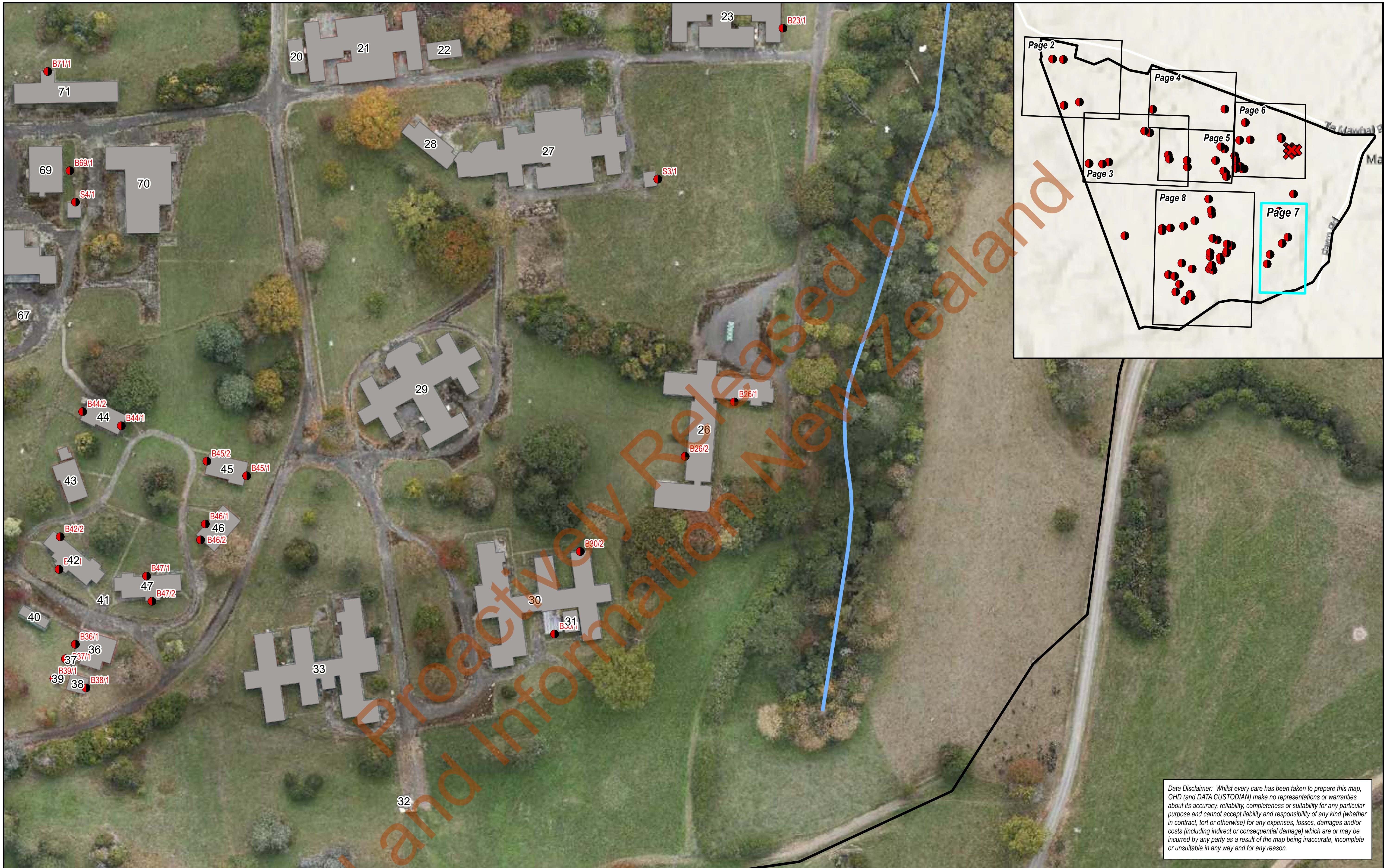

Legend

Site Boundary
Stream
Existing Building (Building ID)
XRF Transect Locations

Paper Size ISO A3

0 9.5 19 28.5 38

Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. **12559090**
Revision No. **B**
Date **06/07/2023**

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Print date: 06 Jul 2023 - 12:56
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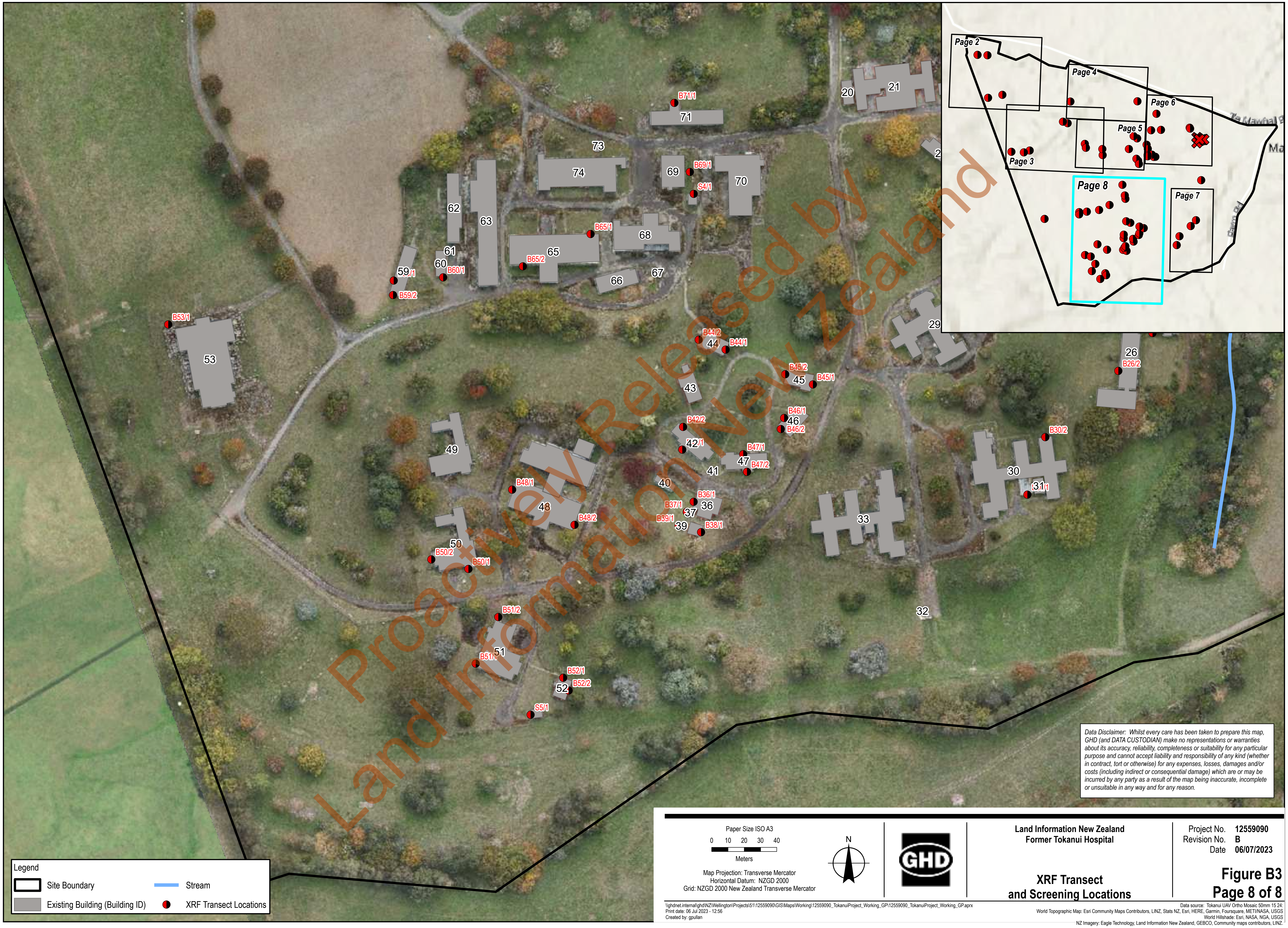

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Paper Size ISO A3
0 10 20 30 40
Meters
Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. 12559090
Revision No. B
Date 06/07/2023

Figure B3
Page 8 of 8

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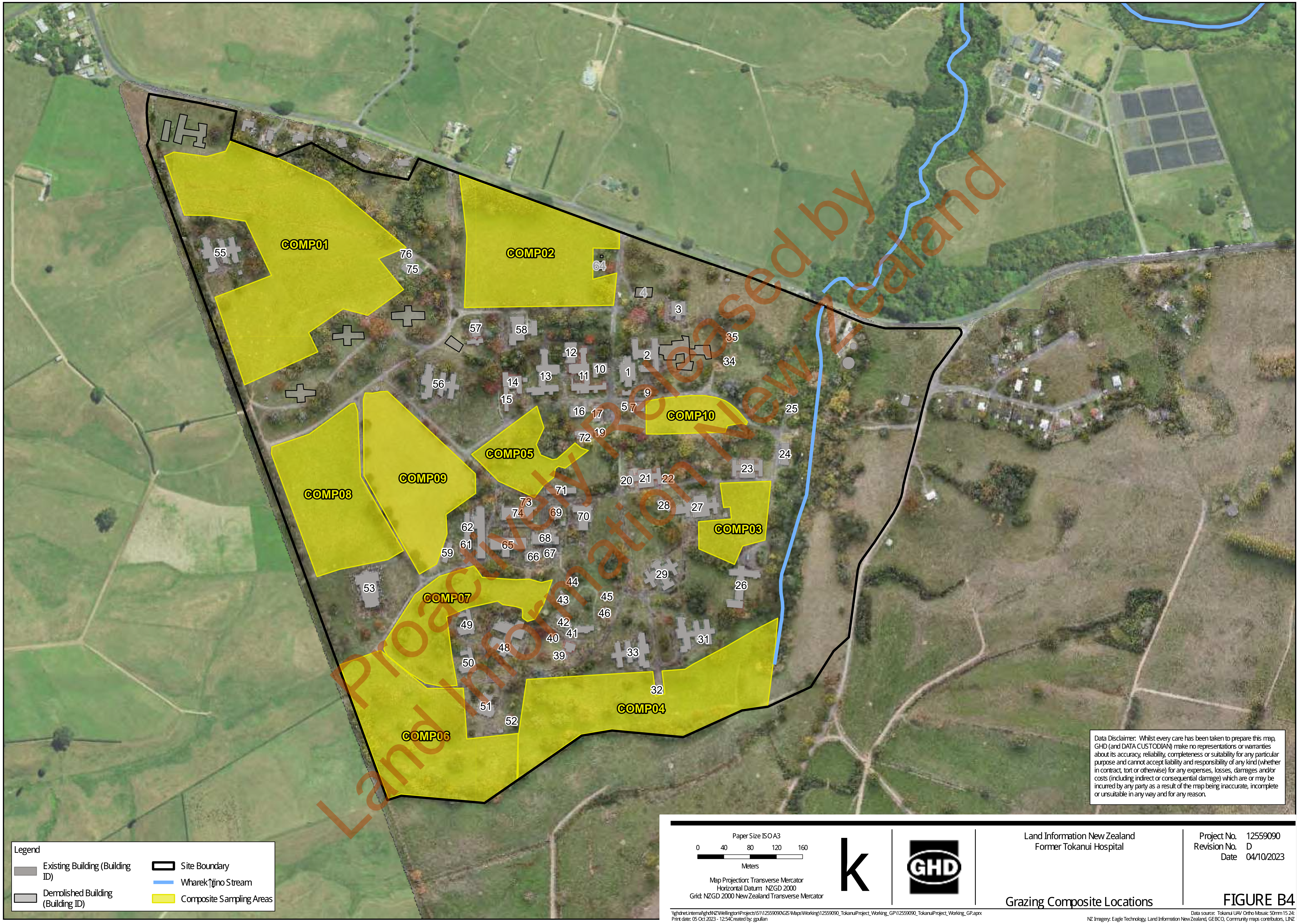
Print date: 06 Jul 2023 - 12:56
Created by: gpullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15 24; World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS; World Hillshade: Esri, NASA, NGA, USGS; NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ.



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Paper Size ISO A3

0 40 80 120 160

Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

Grazing Composite Locations

Project No. 12559090
Revision No. D
Date 04/10/2023

FIGURE B4

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Print date: 05 Oct 2023 - 12:54Created by: gpullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15 24:
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ

Appendix C

Sampling schedule

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	*10 metals*	*Asbestos (presence or absence)*	*Asbestos (Semi-quantitative)*	*TPH*	*PAH*	*PCB*	*Organochlorine Pesticides*	*Organo-nitrogen and organo-phosphate Pesticides*	*Acid Herbicides*	*VOC*	*BTEX*	*SVOC*	*Composite Subsamples*	*Dioxin (PCDD/ PCDF)*	*TOC*	*pH*
B16	TP 01	0.10	Petrol Station Workshop	No	Floor Punch				1	1					1						
B16	TP 01	0.50	Petrol Station Workshop	No					1	1					1						
B16	TP 01	1.00	Petrol Station Workshop	No					0	0					0						
B16	TP 02	0.10	Petrol Station Workshop	No	Floor Punch				1	1					1						
B16	TP 02	0.50	Petrol Station Workshop	No					1	1					1						
B16	TP 02	1.00	Petrol Station Workshop	No					0	0					0						
B16	TP 04	0.10	Petrol Station	No		1		1	1	1					1						
B16	TP 04	0.80	Petrol Station	No																	
B16	TP 05	0.30	Petrol Station	No		1		1	1	1					1						
B16	TP 06	0.10	Petrol Station	No		1		1	1	1					1						
B16	TP 06	0.50	Petrol Station	No		1		1													
B16	TP 07	0.10	Petrol Station	No		1		1	1	1					1						
B16	TP 07	0.50	Petrol Station	No				1													
B16	TP 07	0.90	Petrol Station	No																	
B16	TP 08	0.10	Petrol Station	No					1	1					1						
B16	TP 08	0.50	Petrol Station	No					1	1											
B16	TP 09	0.10	Petrol Station	No					1	1					1						
B16	TP 09	0.50	Petrol Station	No					1	1											
B19	TP 01	0.10	Old Morgue	No		1															1
B19	TP 01	0.50	Old Morgue	No		1															
B19	TP 01	1.00	Old Morgue	No		0															
B19	TP 02	0.10	Old Morgue	No		1															
B19	TP 02	0.50	Old Morgue	No		1															
B19	TP 02	1.00	Old Morgue	No		0															
B25	TP 01	0.10	Morgue	Culturally Significant Area		1															1
B25	TP 01	0.50	Morgue	Culturally Significant Area		1															
B25	TP 01	1.00	Morgue	Culturally Significant Area		0															
B25	TP 02	0.10	Morgue	Culturally Significant Area		1															
B25	TP 02	0.50	Morgue	Culturally Significant Area		1															
B25	TP 02	1.00	Morgue	Culturally Significant Area		0															
B25	TP 03	0.10	Morgue	Culturally Significant Area		1															
B25	TP 03	0.50	Morgue	Culturally Significant Area		1															
B25	TP 03	1.00	Morgue	Culturally Significant Area		0															
B26	TP 01	0.10	Ward 21	Culturally Significant Area		1		1	1								1				1
B26	TP 01	0.50	Ward 21	Culturally Significant Area		1		0	1								0				
B26	TP 01	1.00	Ward 21	Culturally Significant Area		0		0	0								0				
B26	TP 02	0.10	Ward 21	Culturally Significant Area		1		1	1								1				
B26	TP 02	0.50	Ward 21	Culturally Significant Area		1		1	1								1				
B26	TP 02	1.00	Ward 21	Culturally Significant Area		0		0	0								0				
B26	TP 03	0.10	Ward 21	Culturally Significant Area		1		1	1								1				
B26	TP 03	0.50	Ward 21	Culturally Significant Area		0		0	0								0				
B26	TP 03	1.00	Ward 21	Culturally Significant Area		0		0	0								0				
B3	TP 01	0.10	Concrete base structure	No		1			1												
B3	TP 01	0.50	Concrete base structure	No																	
B3	TP 03	0.10	Concrete base structure	No		1			1												
B3	TP 03	0.40	Concrete base structure	No																	
B34	TP 01	0.10	Former Glasshouses	No		1						1	1	1							1
B34	TP 01	0.50	Former Glasshouses	No		1						1	1	1							
B34	TP 01	1.00	Former Glasshouses	No		0						0	0	0							
B34	TP 02	0.10	Former Glasshouses	No		1						1	1	1							
B34	TP 02	0.50	Former Glasshouses	No		1						1	1	1							
B34	TP 02	1.00	Former Glasshouses	No		0						0	0	0							
B34	TP 03	0.10	Former Glasshouses	No		1		1				1	1	1							
B34	TP 03	0.50	Former Glasshouses	No		1						1	1	1							
B34	TP 03	1.00	Former Glasshouses	No		0						0	0	0							
B34	TP 04	0.10	Former Glasshouses	No		1		1				1	1	1							
B34	TP 04	0.50	Former Glasshouses	No		1						1	1	1							
B34	TP 04	1.00	Former Glasshouses	No		0						0	0	0							
B34	TP 05	0.10	Former Glasshouses	No		1						1	1	1							1
B34	TP 05	0.50	Former Glasshouses	No		1						1	1	1							
B34	TP 05	1.00	Former Glasshouses	No		0						0	0	0							
B34	TP 06	0.10	Former Glasshouses	No		1						1	1	1							
B34	TP 06	0.50	Former Glasshouses	No		1						1	1	1							
B34	TP 06	1.00	Former Glasshouses	No		0						0	0	0							
B34	TP 07	0.10	Former Glasshouses	No		1						1	1	1							
B34	TP 07	0.50	Former Glasshouses	No		1						1	1	1							
B34	TP 07	1.00	Former Glasshouses	No		0						0	0	0							
B35	HA 01	0.10	B35 Area - north of glasshouses	No		1						1	1	1							
B35	HA 01	0.50	B35 Area - north of glasshouses	No		1						1	1	1							
B35	HA 02	0.10	B35 Area - north of glasshouses	No		1		1				1	1	1							
B35	HA 02	0.50	B35 Area - north of glasshouses	No		1						0	0	0							
B35	HA 03	0.10	B35 Area - north of glasshouses	No		1						1	1	1							
B35	HA 03	0.50	B35 Area - north of glasshouses	No		1						1	1	1							
B35	HA 04	0.10	B35 Area - north of glasshouses	No		1		1				1	1	1							

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	*10 metals*	*Asbestos (presence or absence)*	*Asbestos (Semi-quantitative)*	*TPH*	*PAH*	*PCB*	*Organochlorine Pesticides*	*Organo-nitrogen and organo-phosphate Pesticides*	*Acid Herbicides*	*VOC*	*BTEX*	*SVOC*	*Composite Subsamples*	*Dioxin (PCDD/ PCDF)*	*TOC*	*pH*
B35	HA 04	0.50	B35 Area - north of glasshouses	No		1						0	0	0							
B35	TP 01	0.10	B35 Area - north of glasshouses	No		1						1	1	1							1
B35	TP 01	0.50	B35 Area - north of glasshouses	No		1						1	1	1							
B35	TP 01	1.00	B35 Area - north of glasshouses	No		0						0	0	0							
B35	TP 02	0.10	B35 Area - north of glasshouses	No		1		1				1	1	1							
B35	TP 02	0.50	B35 Area - north of glasshouses	No		1		1				1	1	1							
B35	TP 02	1.00	B35 Area - north of glasshouses	No		0		0				0	0	0							
B35	TP 03	0.10	B35 Area - north of glasshouses	No		1		1				1	1	1							
B35	TP 03	0.50	B35 Area - north of glasshouses	No		1		0				1	1	1							
B35	TP 03	1.00	B35 Area - north of glasshouses	No		0		0				0	0	0							
B35	TP 04	0.10	B35 Area - north of glasshouses	No		1		1				1	1	1							
B35	TP 04	0.50	B35 Area - north of glasshouses	No		1		1				1	1	1							
B35	TP 04	1.00	B35 Area - north of glasshouses	No		0		0				0	0	0							
B35	TP 05	0.10	B35 Area - north of glasshouses	No		1		1				1	1	1							
B35	TP 05	0.50	B35 Area - north of glasshouses	No		1		0				1	1	1							
B35	TP 05	1.00	B35 Area - north of glasshouses	No		0		0				0	0	0							
B57	TP 01	0.10	Swimming Pool	No	Floor Punch	1									1		1				
B57	TP 01	0.50	Swimming Pool	No		1									1		1				
B57	TP 01	1.00	Swimming Pool	No		0									0		0				
B59	TP 01	0.10	Gardeners Shed	No		1		1				1	1	1							
B59	TP 01	0.60	Gardeners Shed	No		1						1	1	1							
B59	TP 02	0.10	Gardeners Shed	No		1						1	1	1							1
B59	TP 02	0.50	Gardeners Shed	No		1						1	1	1							
B59	TP 02	1.00	Gardeners Shed	No		0						0	0	0							
B59	TP 03	0.10	Gardeners Shed	No		1						1	1	1							
B59	TP 03	0.50	Gardeners Shed	No		1						1	1	1							
B59	TP 03	1.00	Gardeners Shed	No		0						0	0	0							
B59	TP 04	0.10	Gardeners Shed	No		1		1				1	1	1							
B59	TP 04	0.50	Gardeners Shed	No		1		1				1	1	1							
B59	TP 04	1.00	Gardeners Shed	No		0		0				0	0	0							
B59	TP 07	0.10	Gardeners Shed	No		1		1				1	1	1							
B59	TP 07	0.60	Gardeners Shed	No		1															
B61	TP 01	0.10	Shed 11	No	Floor Punch	1			1						1		1				
B61	TP 01	0.50	Shed 11	No		0			0						0		0				
B61	TP 01	1.00	Shed 11	No		0			0						0		0				
B63	TP 01	0.10	Workshop	No		1											1				
B63	TP 01	0.50	Workshop	No		0											0				
B63	TP 01	1.00	Workshop	No		0											0				
B63	TP 03	0.10	Workshop (former fly tipping)	No		1		1	1	1					1						
B63	TP 03	0.70	Workshop (former fly tipping)	No																	
B63	TP 04	0.20	Workshop (former fly tipping)	No		1		1	1	1					1						
B63	TP 04	0.70	Workshop (former fly tipping)	No																	
B65	TP 01	0.10	Store (Fuel)	No					1	1						1					
B65	TP 01	0.50	Store (Fuel)	No					1	1						1					
B65	TP 01	1.50	Store (Fuel)	No					1	1						1					
B65	TP 02	0.10	Store (Fuel)	No					1	1						1					
B65	TP 02	1.00	Store (Fuel)	No					1	1						1					
B65	TP 02	2.00	Store (Fuel)	No					1	1						1					
B65	TP 03	0.10	Store (Fuel)	No					1	1						1					
B65	TP 03	0.50	Store (Fuel)	No					1	1						1					
B65	TP 03	1.50	Store (Fuel)	No					1	1						1					
B66	HA 01	0.10	Engineers Office	No		1		1	1						1		1				
B66	HA 01	0.50	Engineers Office	No		1		1	1						1		1				
B66	HA 02	0.50	Engineers Office	No		1		1	1						1		1				
B66	TP 01	0.10	Engineers Office	No		1		1	1	1						1					
B66	TP 01	0.90	Engineers Office	No		1				1											
B66	TP 01	1.10	Engineers Office	No																	
B66	HA 02	0.10	Engineers Office	No		1		1	1						1		1				
B67	HA 01	0.10	Shed 8 (Incinerator)	No		1		1									1		1		
B67	HA 01	0.50	Shed 8 (Incinerator)	No		1		1									1		0		
B67	HA 02	0.10	Shed 8 (Incinerator)	No		1		1									1		1		
B67	HA 02	0.50	Shed 8 (Incinerator)	No		1		1									1		0		
B68	HA 01	0.05	Boiler (Sump)	No		1			1						1		1				
B68	TP 01	0.20	Boiler House	No					1	1											
B68	TP 01	0.60	Boiler House	No					1	1											
B68	TP 02	0.20	Boiler House	No					1	1											
B68	TP 03	0.20	Boiler House	No					1	1											
B68	TP 03	0.50	Boiler House	No					1	1											
B68	TP 04	0.10	Boiler House	No					1	1											
B68	TP 04	0.50	Boiler House	No					1	1											
B68	TP 06	0.10	Boiler House	No		1			1	1											
B68	TP 06	0.60	Boiler House	No					1	1											
B68	TP 06	1.50	Boiler House	No																	
B68	TP 07	0.10	Boiler House	No		1			1	1											

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	10 metals	Asbestos (presence or absence)	Asbestos (Semi-quantitative)	TPH	PAH	PCB	Organochlorine Pesticides	Organo-nitrogen and organo-phosphate Pesticides	Acid Herbicides	VOC	BTEX	SVOC	Composite Subsamples	Dioxin (PCDD/ PCDF)	TOC	pH
B68	TP 07	0.60	Boiler House	No																	
B68	TP 07	1.50	Boiler House	No				1													
B68	TP 08	0.20	Boiler House	No		1			1	1											
B68	TP 08	0.50	Boiler House	No																	
B68	TP 08	1.70	Boiler House	No																	
B7	TP 03	0.10	Water Treatment	No		1		1													
B7	TP 03	0.70	Water Treatment	No																	
B7	TP 04	0.10	Water Treatment	No		1		1													
B7	TP 04	0.50	Water Treatment	No																	
B71	TP 01	0.10	Drainage area north of garages	No		1									1		1				1
B71	TP 01	0.50	Drainage area north of garages	No		1									1		1				
B71	TP 01	1.00	Drainage area north of garages	No		0									0		0				
B71	TP 02	0.10	Drainage area north of garages	No		1									0		1				
B71	TP 02	0.50	Drainage area north of garages	No		1									0		1				
B71	TP 02	1.00	Drainage area north of garages	No		0									0		0				
B73	TP 01	0.10	Laundry Shed 11	No	Floor Punch	1			1	1	1				1						1
B73	TP 01	0.50	Laundry Shed 11	No		1			1	1	1				1						
B73	TP 01	1.00	Laundry Shed 11	No		0			0	0	0				0						
B73	TP 02	0.10	Laundry Shed 11	No		1		1	1	1	1				1						
B73	TP 02	0.50	Laundry Shed 11	No		1			1	1	1				1						1
B73	TP 02	1.00	Laundry Shed 11	No		0			0	0	0				0						
B74	HA 03	1.00	Laundry	No		0									0						
B74	TP 01	0.10	Laundry	No					1						1						
B74	TP 01	0.60	Laundry	No																	
B74	TP 02	0.10	Laundry	No					1						1						
B74	TP 02	0.50	Laundry	No					1												
B74	TP 02	1.10	Laundry	No																	
B74	TP 02	1.90	Laundry	No					1						1						
B74	TP 02	2.10	Laundry	No					1						1						
B74	TP 03	0.10	Laundry	No					1						1						
B74	TP 03	0.60	Laundry	No																	
B74	TP 03	2.20	Laundry	No					1						1						
B74	TP 03	TILE	Laundry	No																	
B74	TP 04	0.10	Laundry	No					1						1						
B74	TP 04	0.70	Laundry	No					1												
B74	TP 04	2.10	Laundry	No					1						1						
B74	TP 06	0.10	Laundry	No					1						1						
B74	TP 06	0.50	Laundry	No																	
B74	TP 06	2.50	Laundry	No					1						1						
B74	TP 07	0.10	Laundry	No					1						1						
B74	TP 07	0.70	Laundry	No																	
B74	TP 07	1.50	Laundry	No																	
B74	HA 01	0.10	Laundry	No		1									1						
B74	HA 01	0.50	Laundry	No		1									1						
B74	HA 01	1.00	Laundry	No		0									0						
B74	HA 03	0.10	Laundry	No		1									1						
B74	HA 03	0.50	Laundry	No		1									1						
B8	HA 01	0.10	Dentist	No		1		1													
B8	HA 01	0.40	Dentist	No		1															
BWL	TP 01	0.10	Former Bowling Green	No		1						1	1	1							1
BWL	TP 01	0.50	Former Bowling Green	No		1						1	1	1							1
BWL	TP 02	0.10	Former Bowling Green	No		1						1	1	1							
BWL	TP 02	0.50	Former Bowling Green	No		1						0	0	0							
BWL	TP 03	0.10	Former Bowling Green	No		1						1	1	1							
BWL	TP 03	0.50	Former Bowling Green	No		1						1	1	1							
BWL	TP 04	0.10	Former Bowling Green	No		1						1	1	1							
BWL	TP 04	0.50	Former Bowling Green	No		1						0	0	0							
BWL	TP 05	0.10	Former Bowling Green	No		1						1	1	1							
BWL	TP 05	0.50	Former Bowling Green	No		1						1	1	1							
BWL	TP 06	0.10	Former Bowling Green	No		1						1	1	1							
BWL	TP 06	0.50	Former Bowling Green	No		1						0	0	0							
CHP	TP 01	0.20	Former Chapel	No		1	1														
CHP	TP 01	0.50	Former Chapel	No		1	1														
CHP	TP 02	0.10	Former Chapel	No																	
CHP	TP 02	0.50	Former Chapel	No																	
CHP	TP 03	0.10	Former Chapel	No																	
CHP	TP 04	0.20	Former Chapel	No		1	1														
CHP	TP 04	0.60	Former Chapel	No		1	1														
DIP	HA 01	0.10	Potential Sheep Dip	No		1		1				1	1	1							
DIP	HA 01	0.50	Potential Sheep Dip	No		0						0	0	0							
DIP	HA 02	0.10	Potential Sheep Dip	No		1		1				1	1	1							
DIP	HA 02	0.50	Potential Sheep Dip	No		0						0	0	0							
DIP	HA 03	0.10	Potential Sheep Dip	No		1		1				1	1	1							
DIP	HA 03	0.50	Potential Sheep Dip	No		0						0	0	0							

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	*10 metals*	*Asbestos (presence or absence)*	*Asbestos (Semi-quantitative)*	*TPH*	*PAH*	*PCB*	*Organochlorine Pesticides*	*Organo-nitrogen and organo-phosphate Pesticides*	*Acid Herbicides*	*VOC*	*BTEX*	*SVOC*	*Composite Subsamples*	*Dioxin (PCDD/ PCDF)*	*TOC*	*pH*
DIP	TP 01	0.20	Potential Sheep Dip	No		1						1	1	1							
DIP	TP 01	0.50	Potential Sheep Dip	No																	
DIP	TP 01	1.10	Potential Sheep Dip	No																	
DIP	TP 02	0.20	Potential Sheep Dip	No		1						1	1	1							
DIP	TP 02	1.20	Potential Sheep Dip	No																	
DIP	TP 03	0.20	Potential Sheep Dip	No		1						1	1	1							
DIP	TP 03	0.70	Potential Sheep Dip	No																	
DIP	TP 03	1.20	Potential Sheep Dip	No																	
DIP	TP 02	0.50	Potential Sheep Dip	No																	
DS01	TP 01	0.10	Demolished Structure 1	No		1		1													1
DS01	TP 01	0.50	Demolished Structure 1	No		1		1													
DS01	TP 01	1.00	Demolished Structure 1	No		0		0													
DS01	TP 02	0.10	Demolished Structure 1	No		1		1													
DS01	TP 02	0.50	Demolished Structure 1	No		0		0													
DS01	TP 02	1.00	Demolished Structure 1	No		0		0													
DS01	TP 03	0.10	Demolished Structure 1	No		1		1													
DS01	TP 03	0.50	Demolished Structure 1	No		1		1													
DS01	TP 03	1.00	Demolished Structure 1	No		0		0													
DS01	TP 04	0.10	Demolished Structure 1	No		1		1													
DS01	TP 04	0.50	Demolished Structure 1	No		0		0													
DS01	TP 04	1.00	Demolished Structure 1	No		0		0													
DS01	TP 05	0.10	Demolished Structure 1	No		1		1													
DS01	TP 05	0.50	Demolished Structure 1	No		1		1													
DS01	TP 05	1.00	Demolished Structure 1	No		0		0													
DS02	TP 01	0.10	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 01	0.50	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 01	1.00	Demolished Structure 2	Culturally Significant Area		0		0													
DS02	TP 02	0.10	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 02	0.50	Demolished Structure 2	Culturally Significant Area		0		0													
DS02	TP 02	1.00	Demolished Structure 2	Culturally Significant Area		0		0													
DS02	TP 03	0.10	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 03	0.50	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 03	1.00	Demolished Structure 2	Culturally Significant Area		0		0													
DS02	TP 04	0.10	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 04	0.50	Demolished Structure 2	Culturally Significant Area		0		0													
DS02	TP 04	1.00	Demolished Structure 2	Culturally Significant Area		0		0													
DS02	TP 05	0.10	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 05	0.50	Demolished Structure 2	Culturally Significant Area		1		1													
DS02	TP 05	1.00	Demolished Structure 2	Culturally Significant Area		0		0													
DS03	TP01	0.10	Demolished Structure 3	No		1		1													
DS03	TP01	0.50	Demolished Structure 3	No		1		1													
DS03	TP01	1.00	Demolished Structure 3	No		0		0													
DS03	TP02	0.10	Demolished Structure 3	No		1		1													
DS03	TP02	0.50	Demolished Structure 3	No		1		1													
DS03	TP02	1.00	Demolished Structure 3	No		0		0													
DS03	TP03	0.10	Demolished Structure 3	No		1		1													
DS03	TP03	0.50	Demolished Structure 3	No		1		1													
DS03	TP03	1.00	Demolished Structure 3	No		0		0													
DS03	TP04	0.10	Demolished Structure 3	No		1		1													
DS03	TP04	0.50	Demolished Structure 3	No		1		1													
DS03	TP04	1.00	Demolished Structure 3	No		0		0													
HSP	SED 01	0.05	Hospital overland flow sediment	No		1			1			1	1	1	1		1			1	1
HSP	SED 01	0.30	Hospital overland flow sediment	No		1			1			1	1	1	1		1			1	1
HSP	SED 02	0.05	Hospital overland flow sediment	Archaeological Area		1			1			1	1	1	1		1			1	1
HSP	SED 02	0.30	Hospital overland flow sediment	Archaeological Area		1			1			1	1	1	1		1			1	1
HSP	SED 03	0.05	Hospital overland flow sediment	Archaeological Area		1			1			1	1	1	1		1			1	1
HSP	SED 03	0.30	Hospital overland flow sediment	Archaeological Area		1			1			1	1	1	1		1			1	1
HSP	SED 04	0.05	Hospital overland flow sediment	Archaeological Area		1			1			1	1	1	1		1			1	1
HSP	SED 04	0.30	Hospital overland flow sediment	Archaeological Area		1			1			1	1	1	1		1				
HT	COMP_A	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_A	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_A	1.00	Horticultural Area	No		0						0	0	0							
HT	COMP_B	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_B	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_B	1.00	Horticultural Area	No		0						0	0	0							
HT	COMP_C	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_C	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_C	1.00	Horticultural Area	No		0						0	0	0							
HT	COMP_D	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_D	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_D	1.00	Horticultural Area	No		0						0	0	0							
HT	COMP_E	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_E	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_E	1.00	Horticultural Area	No		0						0	0	0							

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	10 metals	Asbestos (presence or absence)	Asbestos (Semi-quantitative)	TPH	PAH	PCB	Organochlorine Pesticides	Organo-nitrogen and organo-phosphate Pesticides	Acid Herbicides	VOC	BTEX	SVOC	Composite Subsamples	Dioxin (PCDD/ PCDF)	TOC	pH
HT	COMP_F	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_F	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_F	1.00	Horticultural Area	No		0						0	0	0							
HT	COMP_G	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_G	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_G	1.00	Horticultural Area	No		0						0	0	0							
HT	COMP_H	0.10	Horticultural Area	No		1						1	1	1							
HT	COMP_H	0.50	Horticultural Area	No		1						1	1	1							
HT	COMP_H	1.00	Horticultural Area	No		0						0	0	0							
HT	COMPA1	0.10	Horticultural Area	No														1			
HT	COMPA1	0.50	Horticultural Area	No														1			
HT	COMPA1	1.00	Horticultural Area	No														0			
HT	COMPA2	0.10	Horticultural Area	No														1			
HT	COMPA2	0.50	Horticultural Area	No														1			
HT	COMPA2	1.00	Horticultural Area	No														0			
HT	COMPA3	0.10	Horticultural Area	No														1			
HT	COMPA3	0.50	Horticultural Area	No														1			
HT	COMPA3	1.00	Horticultural Area	No														0			
HT	COMPA4	0.10	Horticultural Area	No														1			
HT	COMPA4	0.50	Horticultural Area	No														1			
HT	COMPA4	1.00	Horticultural Area	No														0			
HT	COMPB1	0.10	Horticultural Area	No														1			
HT	COMPB1	0.50	Horticultural Area	No														1			
HT	COMPB1	1.00	Horticultural Area	No														0			
HT	COMPB2	0.10	Horticultural Area	No														1			
HT	COMPB2	0.50	Horticultural Area	No														1			
HT	COMPB2	1.00	Horticultural Area	No														0			
HT	COMPB3	0.10	Horticultural Area	No														1			
HT	COMPB3	0.50	Horticultural Area	No														1			
HT	COMPB3	1.00	Horticultural Area	No														0			
HT	COMPB4	0.10	Horticultural Area	No														1			
HT	COMPB4	0.50	Horticultural Area	No														1			
HT	COMPB4	1.00	Horticultural Area	No														0			
HT	COMPC1	0.10	Horticultural Area	No														1			
HT	COMPC1	0.50	Horticultural Area	No														1			
HT	COMPC1	1.00	Horticultural Area	No														0			
HT	COMPC2	0.10	Horticultural Area	No														1			
HT	COMPC2	0.50	Horticultural Area	No														1			
HT	COMPC2	1.00	Horticultural Area	No														0			
HT	COMPC3	0.10	Horticultural Area	No														1			
HT	COMPC3	0.50	Horticultural Area	No														1			
HT	COMPC3	1.00	Horticultural Area	No														0			
HT	COMPC4	0.10	Horticultural Area	No														1			
HT	COMPC4	0.50	Horticultural Area	No														1			
HT	COMPC4	1.00	Horticultural Area	No														0			
HT	COMPD1	0.10	Horticultural Area	No														1			
HT	COMPD1	0.50	Horticultural Area	No														1			
HT	COMPD1	1.00	Horticultural Area	No														0			
HT	COMPD2	0.10	Horticultural Area	No														1			
HT	COMPD2	0.50	Horticultural Area	No														1			
HT	COMPD2	1.00	Horticultural Area	No														0			
HT	COMPD3	0.10	Horticultural Area	No														1			
HT	COMPD3	0.50	Horticultural Area	No														1			
HT	COMPD3	1.00	Horticultural Area	No														0			
HT	COMPD4	0.10	Horticultural Area	No														1			
HT	COMPD4	0.50	Horticultural Area	No														1			
HT	COMPD4	1.00	Horticultural Area	No														0			
HT	COMPE1	0.10	Horticultural Area	No														1			
HT	COMPE1	0.50	Horticultural Area	No														1			
HT	COMPE1	1.00	Horticultural Area	No														0			
HT	COMPE2	0.10	Horticultural Area	No														1			
HT	COMPE2	0.50	Horticultural Area	No														1			
HT	COMPE2	1.00	Horticultural Area	No														0			
HT	COMPE3	0.10	Horticultural Area	No														1			
HT	COMPE3	0.50	Horticultural Area	No														1			
HT	COMPE3	1.00	Horticultural Area	No														0			
HT	COMPE4	0.10	Horticultural Area	No														1			
HT	COMPE4	0.50	Horticultural Area	No														1			
HT	COMPE4	1.00	Horticultural Area	No														0			
HT	COMPF1	0.10	Horticultural Area	No														1			
HT	COMPF1	0.50	Horticultural Area	No														1			
HT	COMPF1	1.00	Horticultural Area	No														0			
HT	COMPF2	0.10	Horticultural Area	No														1			
HT	COMPF2	0.50	Horticultural Area	No														1			
HT	COMPF2	1.00	Horticultural Area	No														0			

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	*10 metals*	*Asbestos (presence or absence)*	*Asbestos (Semi-quantitative)*	*TPH*	*PAH*	*PCB*	*Organochlorine Pesticides*	*Organo-nitrogen and organo-phosphate Pesticides*	*Acid Herbicides*	*VOC*	*BTEX*	*SVOC*	*Composite Subsamples*	*Dioxin (PCDD/ PCDF)*	*TOC*	*pH*
HT	COMPF3	0.10	Horticultural Area	No														1			
HT	COMPF3	0.50	Horticultural Area	No														1			
HT	COMPF3	1.00	Horticultural Area	No														0			
HT	COMPF4	0.10	Horticultural Area	No														1			
HT	COMPF4	0.50	Horticultural Area	No														1			
HT	COMPF4	1.00	Horticultural Area	No														0			
HT	COMPG1	0.10	Horticultural Area	No														1			
HT	COMPG1	0.50	Horticultural Area	No														1			
HT	COMPG1	1.00	Horticultural Area	No														0			
HT	COMPG2	0.10	Horticultural Area	No														1			
HT	COMPG2	0.50	Horticultural Area	No														1			
HT	COMPG2	1.00	Horticultural Area	No														0			
HT	COMPG3	0.10	Horticultural Area	No														1			
HT	COMPG3	0.50	Horticultural Area	No														1			
HT	COMPG3	1.00	Horticultural Area	No														0			
HT	COMPH1	0.10	Horticultural Area	No														1			
HT	COMPH1	0.50	Horticultural Area	No														1			
HT	COMPH1	1.00	Horticultural Area	No														0			
HT	COMPH2	0.10	Horticultural Area	No														1			
HT	COMPH2	0.50	Horticultural Area	No														1			
HT	COMPH2	1.00	Horticultural Area	No														0			
HT	COMPH3	0.10	Horticultural Area	No														1			
HT	COMPH3	0.50	Horticultural Area	No														1			
HT	COMPH3	1.00	Horticultural Area	No														0			
HT	TP 25	0.20	Horticultural Area	No		1		1	1			1	1	1							
HT	TP 25	1.20	Horticultural Area	No		1		1													
HT	TP 27	0.10	Horticultural Area	No		1		1	1			1	1	1							
HT	TP 27	0.50	Horticultural Area	No		1		1													
HT	TP 27	0.70	Horticultural Area	No		1		1													
HT	TP 28	0.10	Horticultural Area	No		1		1	1			1	1	1							
HT	TP 28	0.40	Horticultural Area	No		1		1													
HT	TP 29	0.10	Horticultural Area	No		1		1									1				1
HT	TP 29	0.50	Horticultural Area	No		1		1									1				
HT	TP 29	1.00	Horticultural Area	No		0		0									0				
HT	TP 30	0.10	Horticultural Area	No		1		1									1				
HT	TP 30	0.50	Horticultural Area	No		1		1									1				
HT	TP 30	1.00	Horticultural Area	No		0		0									0				
HT	TP 31	0.10	Horticultural Area	No		1		1									1				
HT	TP 31	0.50	Horticultural Area	No		1		1									1				
HT	TP 31	1.00	Horticultural Area	No		0		0									0				
NUR	TP 01	0.10	Former Nurses Home	No		1		1													1
NUR	TP 01	0.50	Former Nurses Home	No		1		1													
NUR	TP 01	1.00	Former Nurses Home	No		0		0													
NUR	TP 02	0.10	Former Nurses Home	No		1		1													
NUR	TP 02	0.50	Former Nurses Home	No		0		0													
NUR	TP 02	1.00	Former Nurses Home	No		0		0													
NUR	TP 03	0.10	Former Nurses Home	No		1		1													
NUR	TP 03	0.50	Former Nurses Home	No		1		1													
NUR	TP 03	1.00	Former Nurses Home	No		0		0													
NUR	TP 04	0.10	Former Nurses Home	No		1		1													
NUR	TP 04	0.50	Former Nurses Home	No		0		0													
NUR	TP 04	1.00	Former Nurses Home	No		0		0													
NW_FILL	TP 01	0.10	North west area of suspected fill	Archaeological Area		1		1									1				
NW_FILL	TP 01	0.50	North west area of suspected fill	Archaeological Area		1		1									1				
NW_FILL	TP 01	1.00	North west area of suspected fill	Archaeological Area		0		0									0				
NW_FILL	TP 02	0.10	North west area of suspected fill	Archaeological Area		1		1									1				
NW_FILL	TP 02	0.50	North west area of suspected fill	Archaeological Area		0		0									0				
NW_FILL	TP 02	1.00	North west area of suspected fill	Archaeological Area		0		0									0				
NW_FILL	TP 03	0.10	North west area of suspected fill	Archaeological Area		1		1									1				
NW_FILL	TP 03	0.50	North west area of suspected fill	Archaeological Area		1		1									1				
NW_FILL	TP 03	1.00	North west area of suspected fill	Archaeological Area		0		0									0				
NW_FILL	TP 04	0.10	North west area of suspected fill	Archaeological Area		1		1									1				
NW_FILL	TP 04	0.50	North west area of suspected fill	Archaeological Area		0		0									0				
NW_FILL	TP 04	1.00	North west area of suspected fill	Archaeological Area		0		0									0				
PAV	TP 01	0.10	Former Sports Pavilion	No		1		1													
PAV	TP 01	0.50	Former Sports Pavilion	No		1		0													
PAV	TP 01	1.00	Former Sports Pavilion	No		0		0													
PAV	TP 02	0.10	Former Sports Pavilion	No		1		1													
PAV	TP 02	0.50	Former Sports Pavilion	No		0		0													
PAV	TP 02	1.00	Former Sports Pavilion	No		0		0													
SB1	TP 01	0.10	Substation 1	No		1			1		1										
SB1	TP 01	0.50	Substation 1	No		1			0		1										
SB1	TP 01	1.00	Substation 1	No		0			0		0										
SB2	TP 01	0.10	Substation 2	No	Floor Punch	1			1		1										

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	10 metals	Asbestos (presence or absence)	Asbestos (Semi-quantitative)	TPH	PAH	PCB	Organochlorine Pesticides	Organo-nitrogen and organo-phosphate Pesticides	Acid Herbicides	VOC	BTEX	SVOC	Composite Subsamples	Dioxin (PCDD/ PCDF)	TOC	pH
SB2	TP 01	0.50	Substation 2	No		1			1		1										
SB2	TP 01	1.00	Substation 2	No		0			0		0										
SB2	TP 02	0.20	Substation 2	No		1		1	1	1	1										
SB2	TP 02	0.70	Substation 2	No					1												
SB2	TP 03	0.20	Substation 2	No		1		1	1	1	1										
SB2	TP 03	0.50	Substation 2	No					1												
SB3	TP 01	0.10	Substation 3	No	Floor Punch	1			1		1										
SB3	TP 01	0.50	Substation 3	No		1			1		1										
SB3	TP 01	1.00	Substation 3	No		0			0		0										
SB4	TP 01	0.10	Substation 4	No		1		1	1	1	1										
SB4	TP 01	0.50	Substation 4	No					1	1											
SB4	TP 02	0.20	Substation 4	No		1		1	1	1	1										
SB4	TP 02	0.50	Substation 4	No					1	1											
SB4	TP 03	0.10	Substation 4	No		1		1	1	1	1										
SB4	TP 03	0.40	Substation 4	No					1	1											
SB5	TP 01	0.10	Substation 5	No	Floor Punch	1			1		1										
SB5	TP 01	0.50	Substation 5	No		1			1		1										
SB5	TP 01	1.00	Substation 5	No		0			0		0										
SB6	TP 01	0.10	Substation 6	No	Floor Punch	1			1		1										
SB6	TP 01	0.50	Substation 6	No		1			1		1										
SB6	TP 01	1.00	Substation 6	No		0			0		0										
SB7	TP 01	0.10	Substation 7	No	Floor Punch	1			1		1										
SB7	TP 01	0.50	Substation 7	No		1			1		1										
SB7	TP 01	1.00	Substation 7	No		0			0		0										
SB8	HA 01	0.10	Substation 8	Archaeological Area				1													
SB8	HA 01	0.50	Substation 8	Archaeological Area				1													
SB8	HA 02	0.10	Substation 8	Archaeological Area				1													
SB8	HA 02	0.50	Substation 8	Archaeological Area				1													
SB8	HA 03	0.10	Substation 8	Archaeological Area				1													
SB8	HA 03	0.50	Substation 8	Archaeological Area				1													
SB8	HA 04	0.10	Substation 8	Archaeological Area				1													
SB8	HA 04	0.50	Substation 8	Archaeological Area				1													
SB8	TP 01	0.10	Substation 8	Archaeological Area	Floor Punch	1			1		1										
SB8	TP 01	0.50	Substation 8	Archaeological Area		1			1		1										
SB8	TP 01	1.00	Substation 8	Archaeological Area		0			0		0										
SCH	TP 01	0.10	Former School	No		1		1													
SCH	TP 01	0.30	Former School	No		1		1													
SCH	TP 02	0.10	Former School	No		1		1													
SCH	TP 02	0.30	Former School	No																	
SCH	TP 03	0.10	Former School	No		1		1													
SCH	TP 03	0.70	Former School	No		1		1													
SCH	TP 04	0.10	Former School	No		1		1													
SCH	TP 04	0.60	Former School	No																	
STR	SED 01	0.05	Wharekorino Stream Sediment	No		1			1			1	1	1	1		1			1	1
STR	SED 01	0.30	Wharekorino Stream Sediment	No		1			1			1	1	1	1		1			1	1
STR	SED 02	0.05	Wharekorino Stream Sediment	Archaeological Area		1			1			1	1	1	1		1			1	1
STR	SED 02	0.30	Wharekorino Stream Sediment	Archaeological Area		1			1			1	1	1	1		1				
STR	SED 03	0.05	Wharekorino Stream Sediment	Archaeological Area		1			1			1	1	1	1		1			1	1
STR	SED 03	0.30	Wharekorino Stream Sediment	Archaeological Area		1			1			1	1	1	1		1				
STR	SED 04	0.05	Wharekorino Stream Sediment	No		1			1			1	1	1	1		1			1	1
STR	SED 04	0.30	Wharekorino Stream Sediment	No		1			1			1	1	1	1		1			1	1
STR	SED 05	0.05	Wharekorino Stream Sediment	No		1			1			1	1	1	1		1			1	1
STR	SED 05	0.30	Wharekorino Stream Sediment	No		1			1			1	1	1	1		1				
TRF	TP 01	0.10	Former Tennis Court Area	No		1		1				1	1	1							
TRF	TP 01	0.50	Former Tennis Court Area	No		1						1	1	1							
TRF	TP 02	0.10	Former Tennis Court Area	No		1		1				1	1	1							
TRF	TP 02	0.50	Former Tennis Court Area	No																	
TRF	TP 03	0.10	Former Tennis Court Area	No		1		1				1	1	1							
TRF	TP 03	0.30	Former Tennis Court Area	No		1						1	1	1							
WD2	TP 01	0.10	Ward 2	No		1		1													
WD2	TP 01	0.50	Ward 2	No																	
WD2	TP 02	0.10	Ward 2	No		1		1													
WD2	TP 02	0.40	Ward 2	No				1													
WD2	TP 03	0.10	Ward 2	No		1		1													
WD2	TP 03	0.40	Ward 2	No				1													
WD2	TP 03	1.20	Ward 2	No																	
WD2	TP 04	0.10	Ward 2	No		1		1													
WD2	TP 04	0.50	Ward 2	No																	
WD2	TP 04	1.10	Ward 2	No																	
WD2	TP 05	0.10	Ward 2	No		1		1													
WD2	TP 05	0.50	Ward 2	No				1													
WD2	TP 05	1.10	Ward 2	No																	
WD2	TP 06	0.10	Ward 2	No		1		1													
WD2	TP 06	0.30	Ward 2	No				1													

Tokanui Hospital - Sampling & Analysis Plan

Appendix C: Sample Analytical Schedule

Red text = means sample to be put on HOLD COLD

Building	Test Pit	Depth (m)	Locality	Archaeology or Cultural Area	Building Floor Punch Required?	*10 metals*	*Asbestos (presence or absence)*	*Asbestos (Semi-quantitative)*	*TPH*	*PAH*	*PCB*	*Organochlorine Pesticides*	*Organo-nitrogen and organo-phosphate Pesticides*	*Acid Herbicides*	*VOC*	*BTEX*	*SVOC*	*Composite Subsamples*	*Dioxin (PCDD/ PCDF)*	*TOC*	*pH*
WD2	TP 07	0.10	Ward 2	No		1		1													
WD2	TP 07	0.50	Ward 2	No																	
WD2	TP 08	0.20	Ward 2	No		1		1													
WD2	TP 08	0.50	Ward 2	No																	
WD2	TP 09	0.10	Ward 2	No		1		1													
WD2	TP 09	0.70	Ward 2	No				1													
WD2	TP 09	1.50	Ward 2	No																	
WDF	TP 01	0.10	Former Ward F	Archaeological Area		1		1													
WDF	TP 01	0.50	Former Ward F	Archaeological Area		0		0													
WDF	TP 01	1.00	Former Ward F	Archaeological Area		0		0													
WDF	TP 02	0.10	Former Ward F	Archaeological Area		1		1													
WDF	TP 02	0.50	Former Ward F	Archaeological Area		0		0													
WDF	TP 02	1.00	Former Ward F	Archaeological Area		0		0													
WDF	TP 03	0.10	Former Ward F	Archaeological Area		1		1													
WDF	TP 03	0.50	Former Ward F	Archaeological Area		1		1													
WDF	TP 03	1.00	Former Ward F	Archaeological Area		0		0													
WDG	TP 01	0.10	Former Ward G	Archaeological Area		1		1													
WDG	TP 01	0.50	Former Ward G	Archaeological Area		0		0													
WDG	TP 01	1.00	Former Ward G	Archaeological Area		0		0													
WDG	TP 02	0.10	Former Ward G	Archaeological Area		1		1													
WDG	TP 02	0.50	Former Ward G	Archaeological Area		0		0													
WDG	TP 02	1.00	Former Ward G	Archaeological Area		0		0													
WDG	TP 03	0.10	Former Ward G	Archaeological Area		1		1													
WDG	TP 03	0.50	Former Ward G	Archaeological Area		1		1													
WDG	TP 03	1.00	Former Ward G	Archaeological Area		0		0													
WDH	TP 01	0.10	Former Ward H	Archaeological Area		1		1													
WDH	TP 01	0.50	Former Ward H	Archaeological Area		0		0													
WDH	TP 01	1.00	Former Ward H	Archaeological Area		0		0													
WDH	TP 02	0.10	Former Ward H	Archaeological Area		1		1													
WDH	TP 02	0.50	Former Ward H	Archaeological Area		0		0													
WDH	TP 02	1.00	Former Ward H	Archaeological Area		0		0													
WDH	TP 03	0.10	Former Ward H	Archaeological Area		1		1													
WDH	TP 03	0.50	Former Ward H	Archaeological Area		1		1													
WDH	TP 03	1.00	Former Ward H	Archaeological Area		0		0													
WWTP	TP 01	0.10	Wastewater Treatment Plant	No		1		1							1		1				
WWTP	TP 01	0.50	Wastewater Treatment Plant	No		1		1							0		1				
WWTP	TP 01	1.00	Wastewater Treatment Plant	No		0		0							0		0				
WWTP	TP 02	0.10	Wastewater Treatment Plant	No		1		1							1		1				
WWTP	TP 02	0.50	Wastewater Treatment Plant	No		1		1							0		1				
WWTP	TP 02	1.00	Wastewater Treatment Plant	No		0		0							0		0				
WWTP	TP 03	0.10	Wastewater Treatment Plant	No		1		1							1		1				
WWTP	TP 03	0.50	Wastewater Treatment Plant	No		1		1							0		1				
WWTP	TP 03	1.00	Wastewater Treatment Plant	No		0		0							0		0				
WWTP	TP 04	0.10	Wastewater Treatment Plant	No		1		1							1		1				
WWTP	TP 04	0.50	Wastewater Treatment Plant	No		1		1							0		1				
WWTP	TP 04	1.00	Wastewater Treatment Plant	No		0		0							0		0				
WWTP	DIS-SED	0.10	Wastewater Treatment Plant	No		1									1		1			1	1
WWTP	DIS-SED	0.50	Wastewater Treatment Plant	No		1									1		1			1	1
WWTP	SEEPAGE-SED	0.10	Wastewater Treatment Plant	No		1									1		1			1	1
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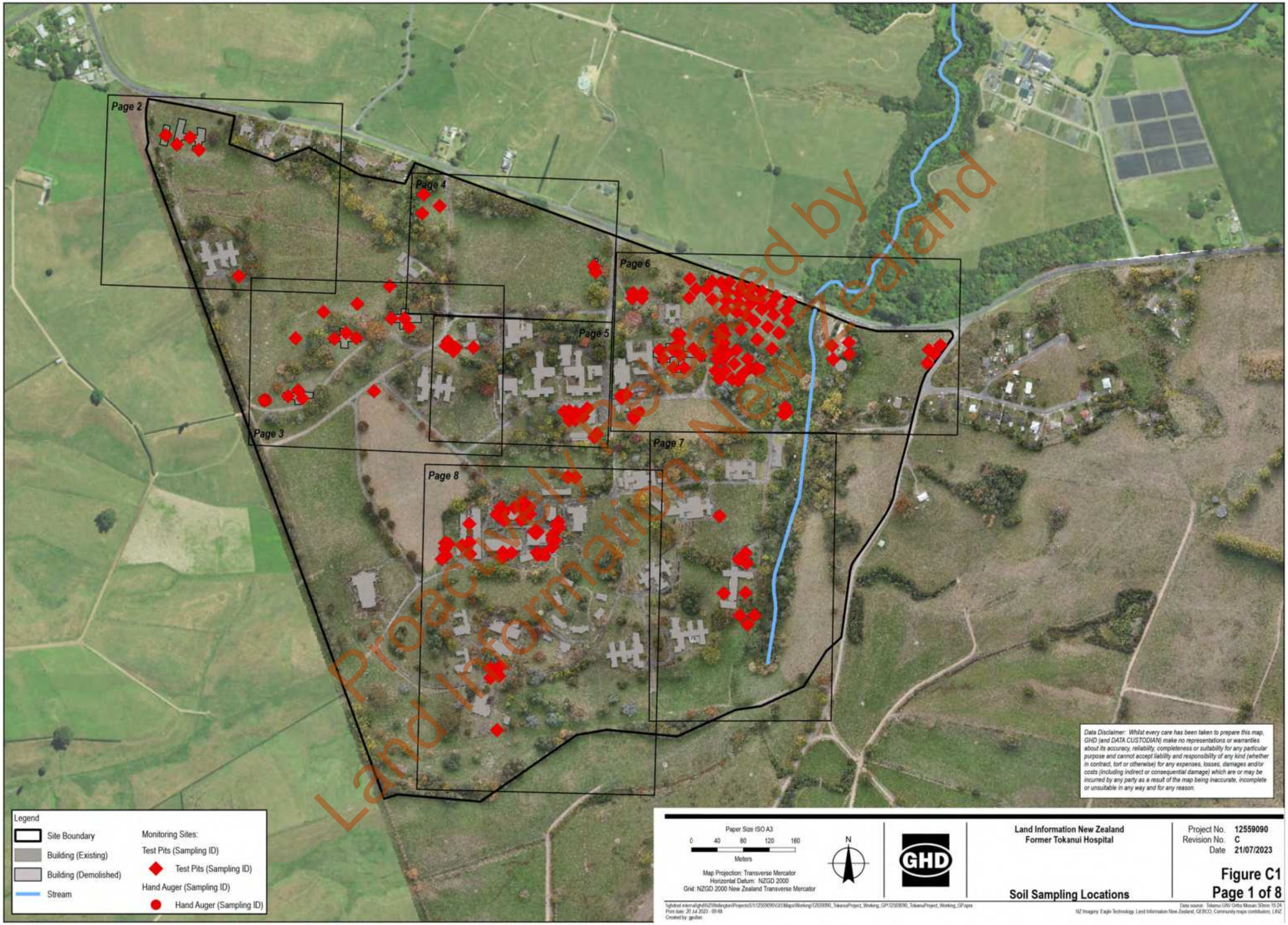
[redacted]

Appendix C

Sampling location maps



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Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

GHD

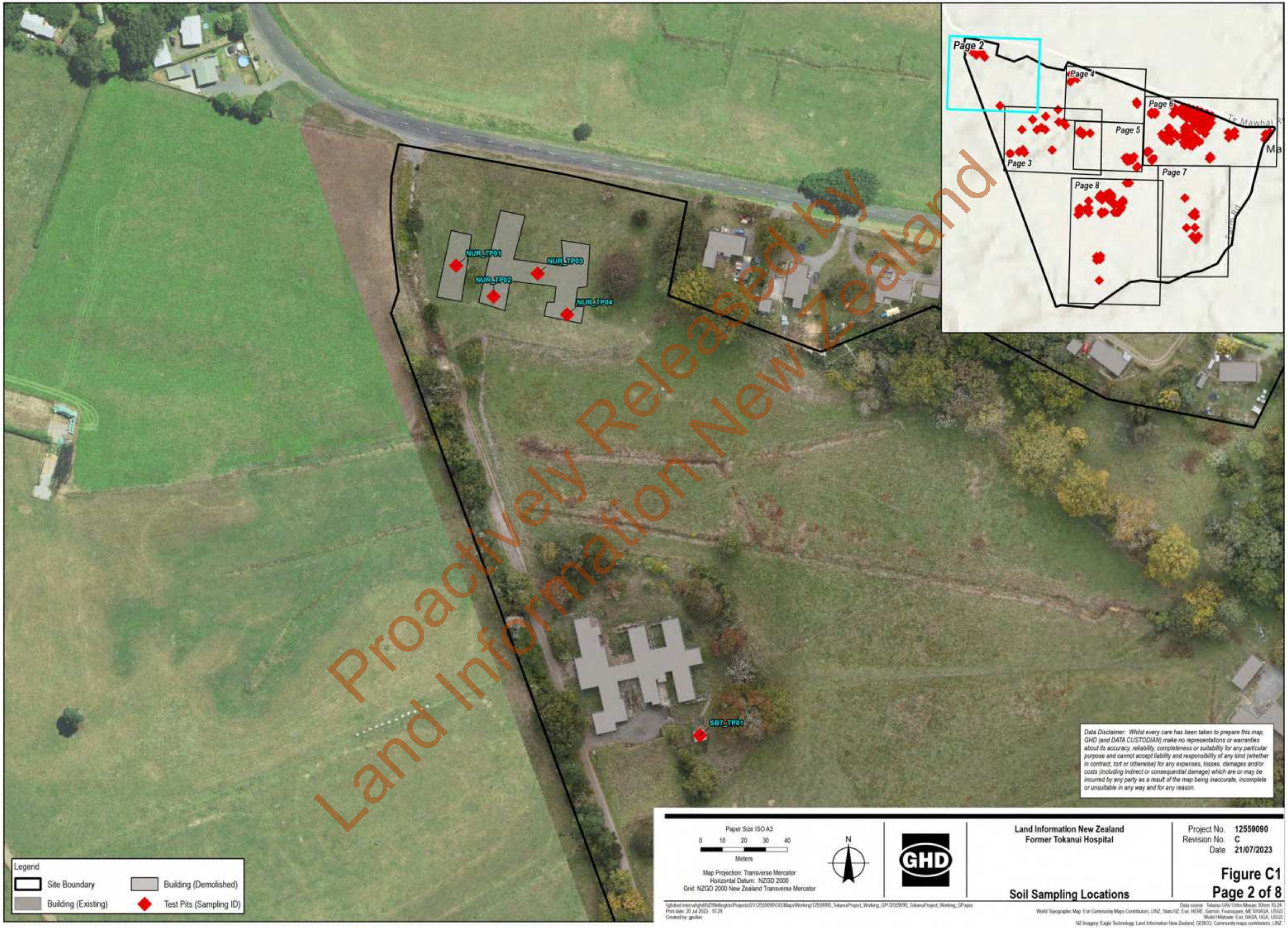
Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. 12559090
Revision No. C
Date 21/07/2023

Figure C1
Page 1 of 8

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



NUR_TP01
NUR_TP02
NUR_TP03
NUR_TP04
SB7_TP01
Page 2
Page 3
Page 4
Page 5
Page 6
Page 7
Page 8
Te Mawhai Rd
Legend
Site Boundary
Building (Demolished)
Building (Existing)
Test Pits (Sampling ID)
Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.
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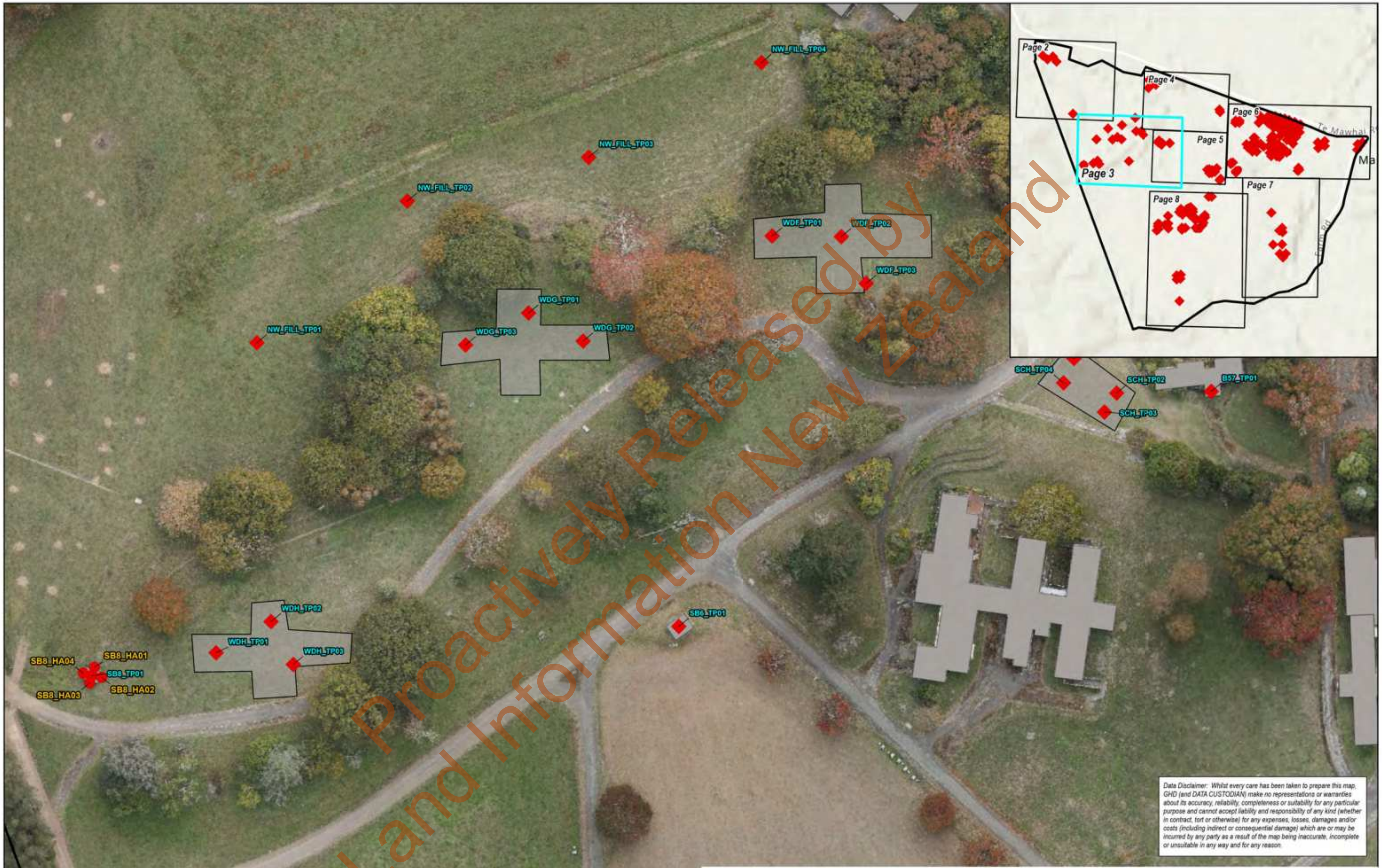
Meters
Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator
N
GHD
Land Information New Zealand
Former Tokanui Hospital
Soil Sampling Locations
Project No. 12559090
Revision No. C
Date 21/07/2023
Figure C1
Page 2 of 8
Print date: 20 Jul 2023 - 10:29
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



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Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

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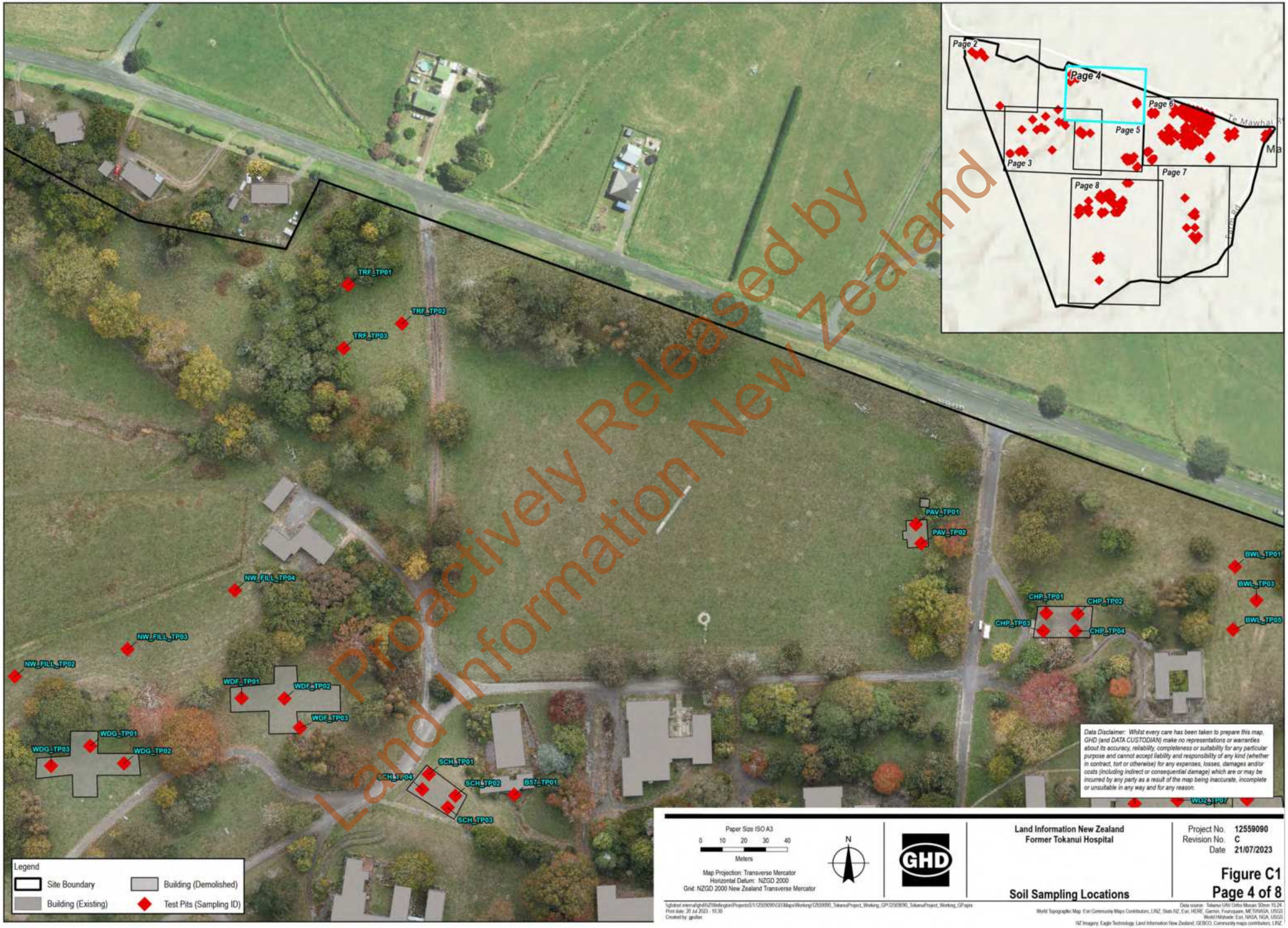
Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. **12559090**
Revision No. **C**
Date **21/07/2023**

Figure C1
Page 3 of 8



Page 2
Page 3
Page 4
Page 5
Page 6
Page 7
Page 8
Te Mawhai Rd
TRF_TP01
TRF_TP02
TRF_TP03
NW_FILL_TP04
NW_FILL_TP03
NW_FILL_TP02
WDF_TP01
WDF_TP02
WDF_TP03
WDG_TP01
WDG_TP02
WDG_TP03
SCH_TP01
SCH_TP02
SCH_TP03
SCH_TP04
B57_TP01
PAV_TP01
PAV_TP02
CHP_TP01
CHP_TP02
CHP_TP03
CHP_TP04
BWL_TP01
BWL_TP03
BWL_TP05
WD2_TP07
Proactively Released by Land Information New Zealand
Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.
Legend
Site Boundary
Building (Existing)
Building (Demolished)
Test Pits (Sampling ID)
Paper Size ISO A3
0 10 20 30 40
Meters
N
Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator
GHD
Land Information New Zealand
Former Tokanui Hospital
Soil Sampling Locations
Project No. 12559090
Revision No. C
Date 21/07/2023
Figure C1
Page 4 of 8

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Paper Size ISO A3

0 8 16 24 32

Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
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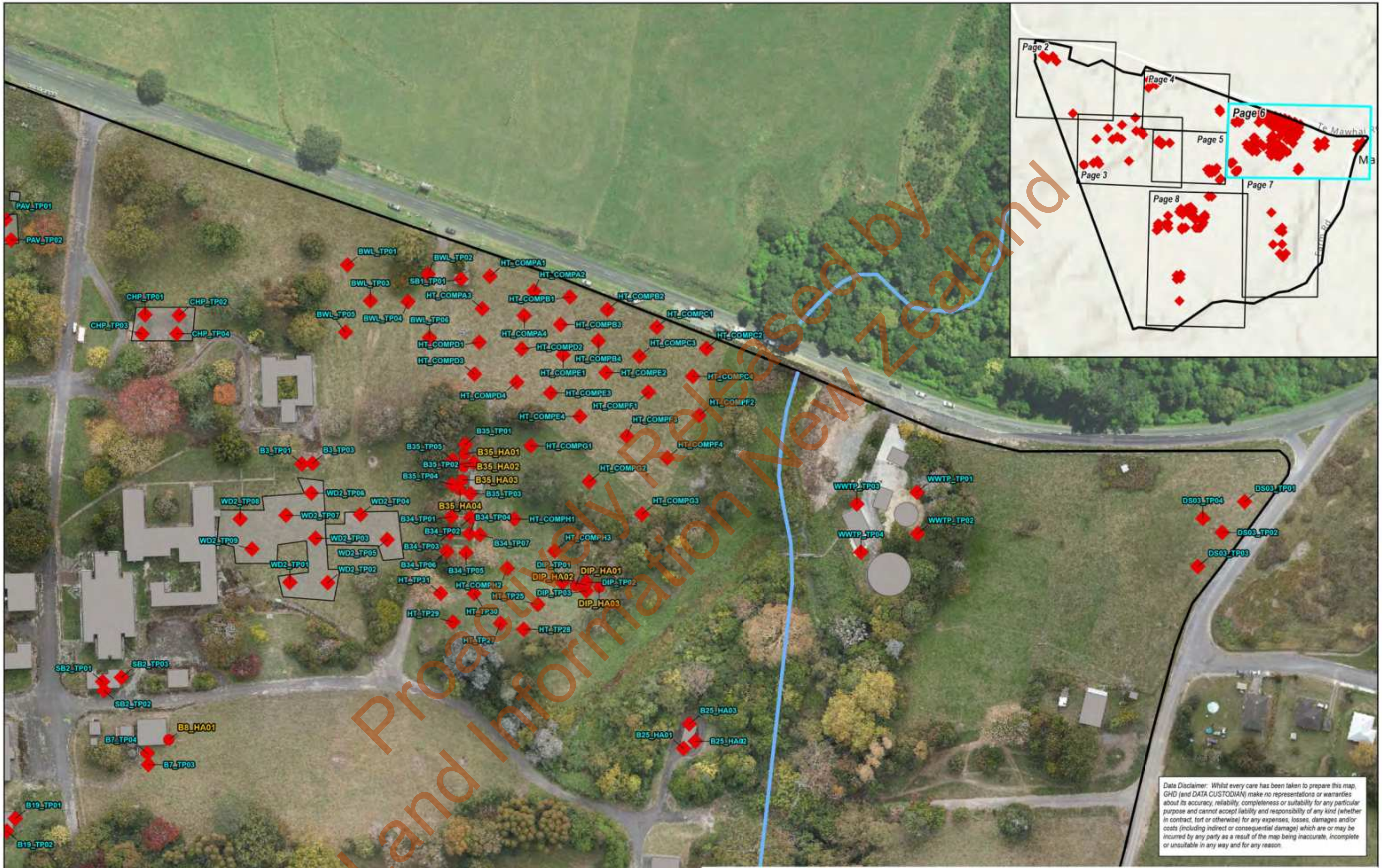
Soil Sampling Locations

Project No. 12559090
Revision No. C
Date 21/07/2023

Figure C1
Page 5 of 8

Print date: 20 Jul 2023 - 10:30

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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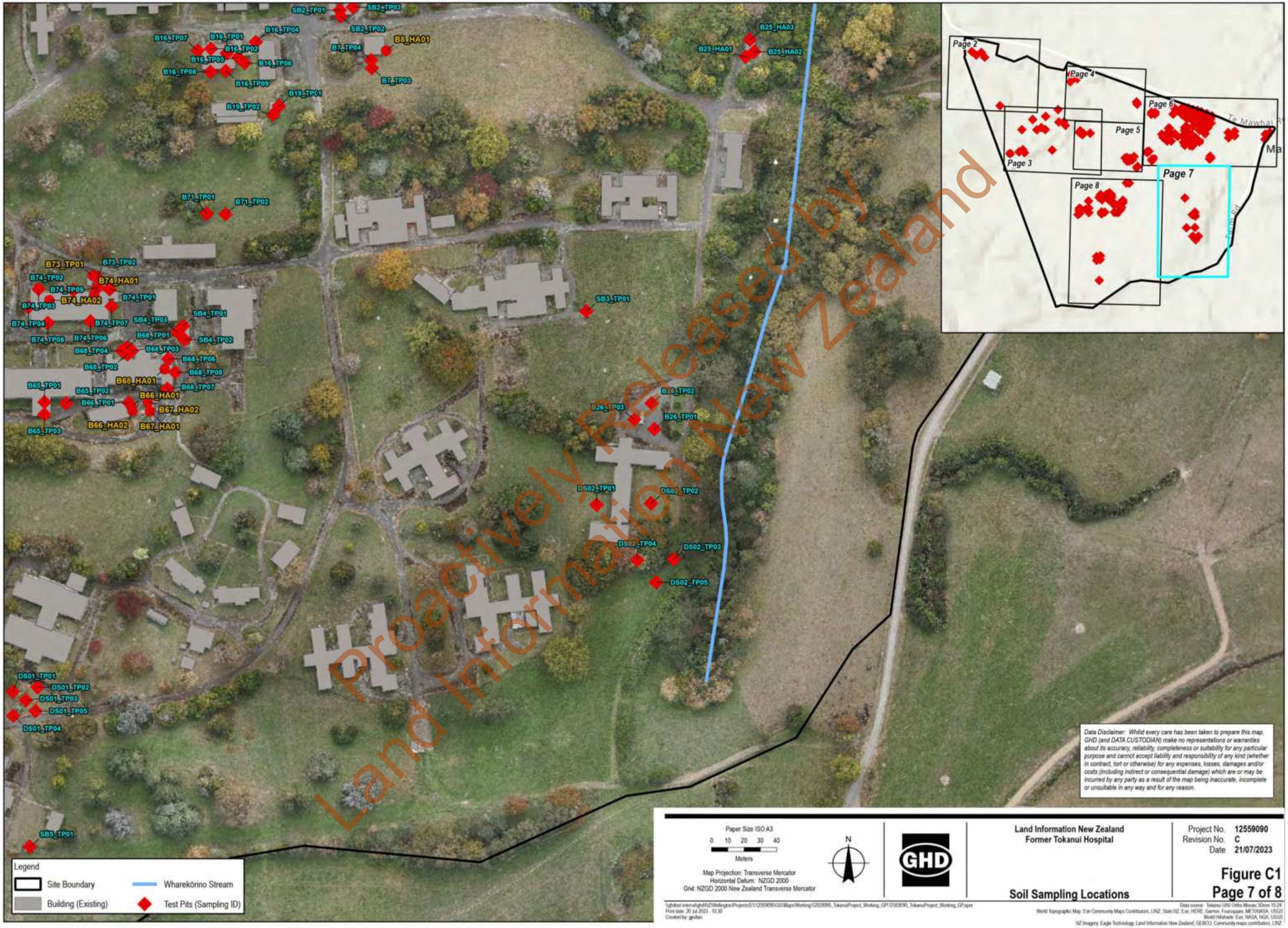
Soil Sampling Locations

Project No. 12559090
Revision No. C
Date 21/07/2023

Figure C1
Page 6 of 8

Print date: 20 Jul 2023 - 15:30
Created by: gpullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15:24. World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS. World Hillshade: Esri, NASA, NGA, USGS. NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



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Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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GHD

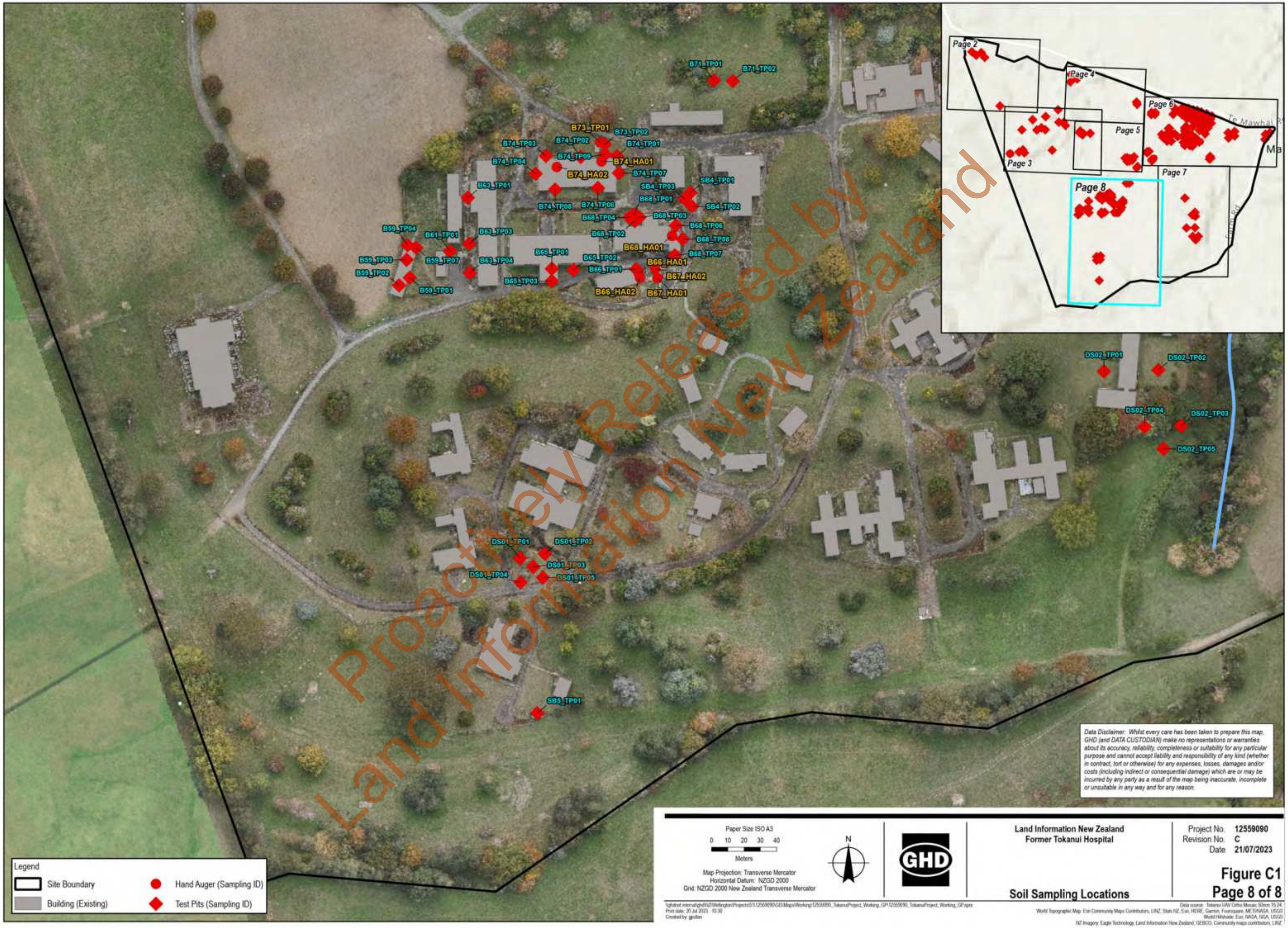
Land Information New Zealand
Former Tokanui Hospital

Soil Sampling Locations

Project No. 12559090
Revision No. C
Date 21/07/2023

Figure C1
Page 7 of 8

Data source: Tokanui UAV Ortho Mosaic 50mm 15:24
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3
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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

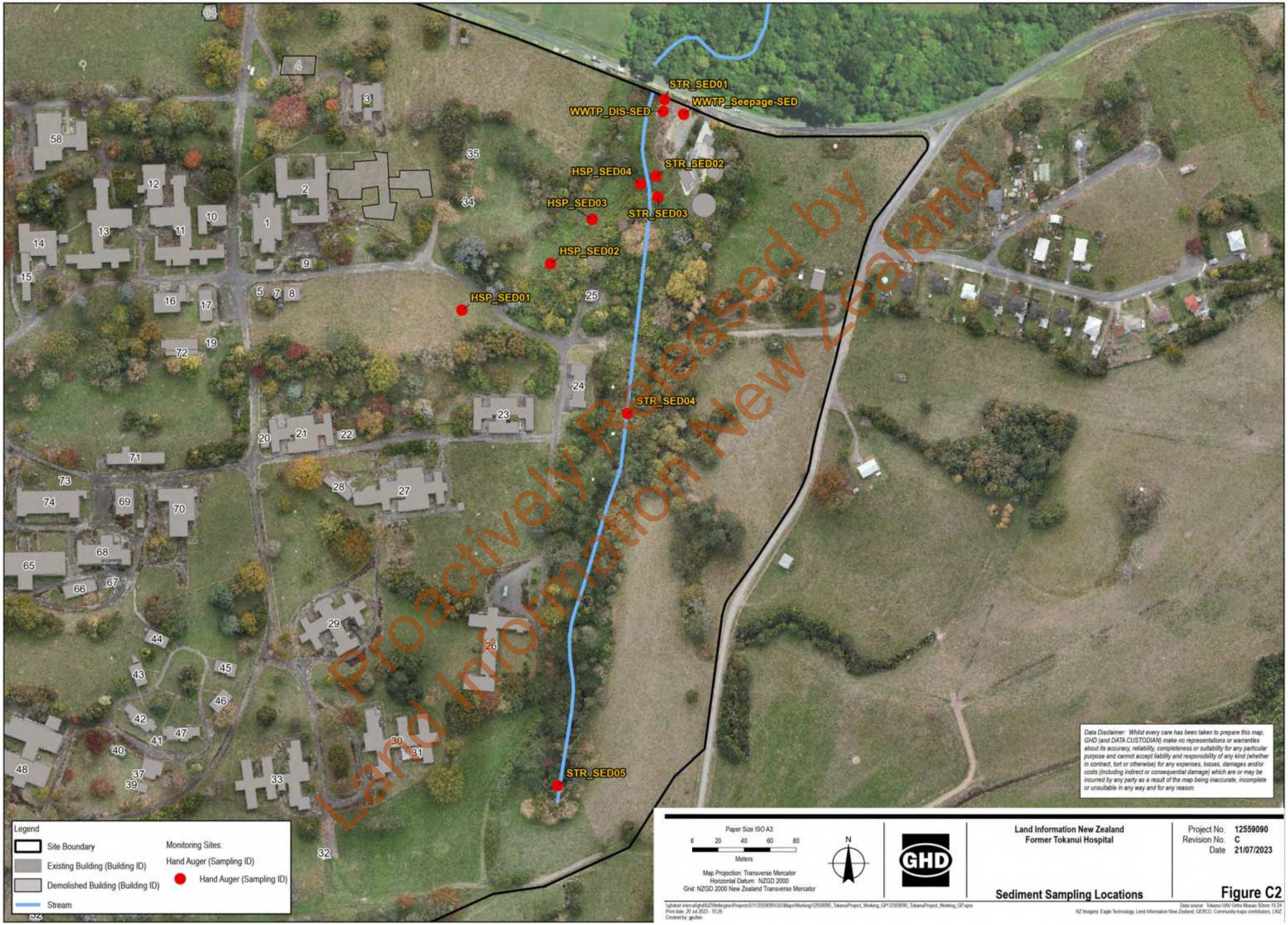
Project No. **12559090**
Revision No. **C**
Date **21/07/2023**

Soil Sampling Locations

Figure C1
Page 8 of 8

Print date: 20 Jul 2023 - 10:30
Created by: gjullian

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24;
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ


STR_SED01
WWTP_Seepage-SED
WWTP_DIS-SED
STR_SED02
HSP_SED04
HSP_SED03
STR_SED03
HSP_SED02
HSP_SED01
STR_SED04
STR_SED05
64
4
3
58
35
12
2
34
1
10
11
13
14
9
15
5
7
8
16
17
25
19
72
24
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67
29
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44
43
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46
42
47
41
40
30
31
48
37
39
33
32
Legend
Site Boundary
Existing Building (Building ID)
Demolished Building (Building ID)
Stream
Monitoring Sites:
Hand Auger (Sampling ID)
Hand Auger (Sampling ID)
Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.
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GHD
Land Information New Zealand
Former Tokanui Hospital
Project No. 12559090
Revision No. C
Date 21/07/2023
Sediment Sampling Locations
Figure C2
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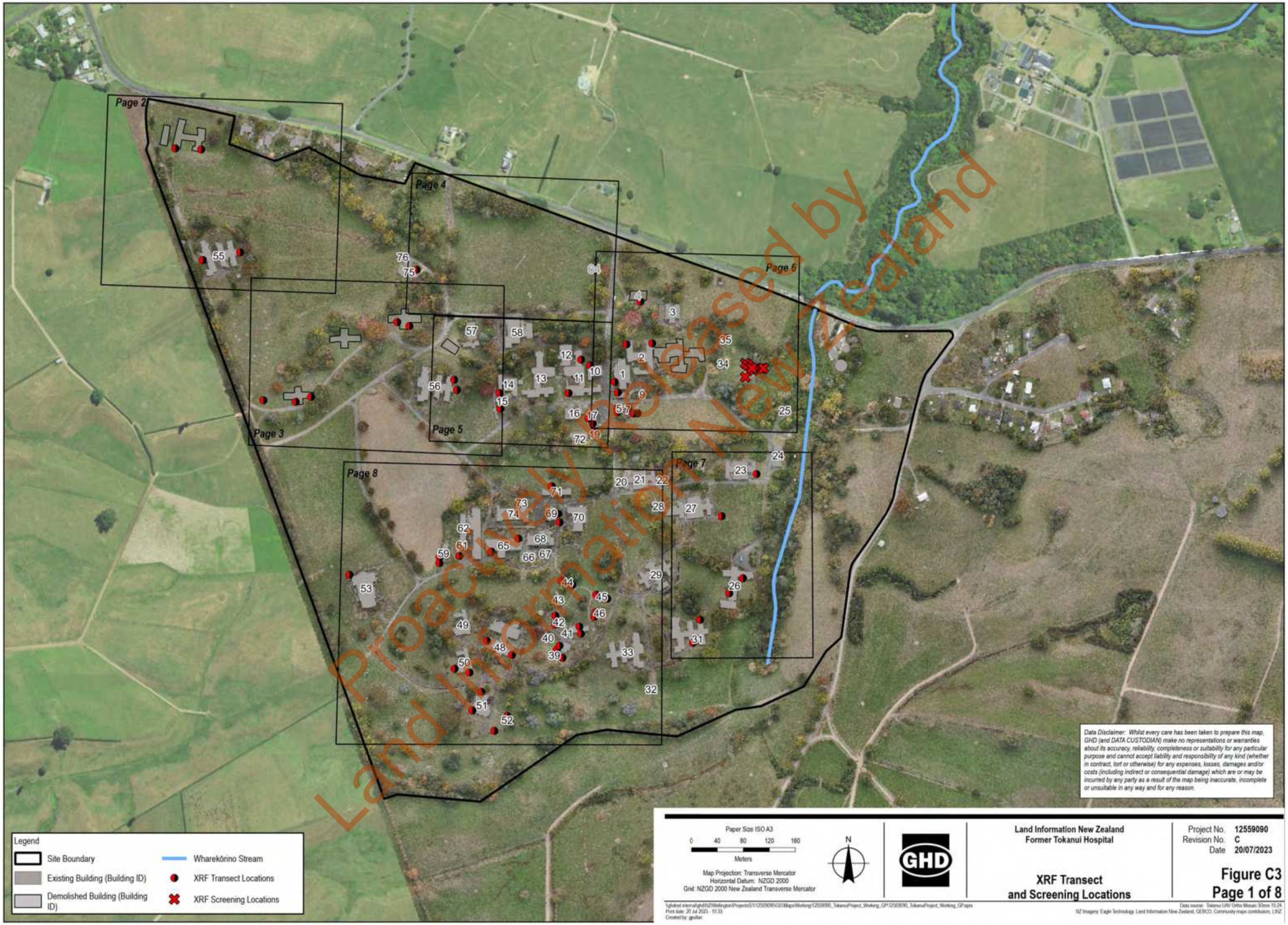
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



Page 2
Page 3
Page 4
Page 5
Page 6
Page 7
Page 8
Legend
Site Boundary
Existing Building (Building ID)
Demolished Building (Building ID)
Wharekōrino Stream
XRF Transect Locations
XRF Screening Locations
Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.
Paper Size ISO A3
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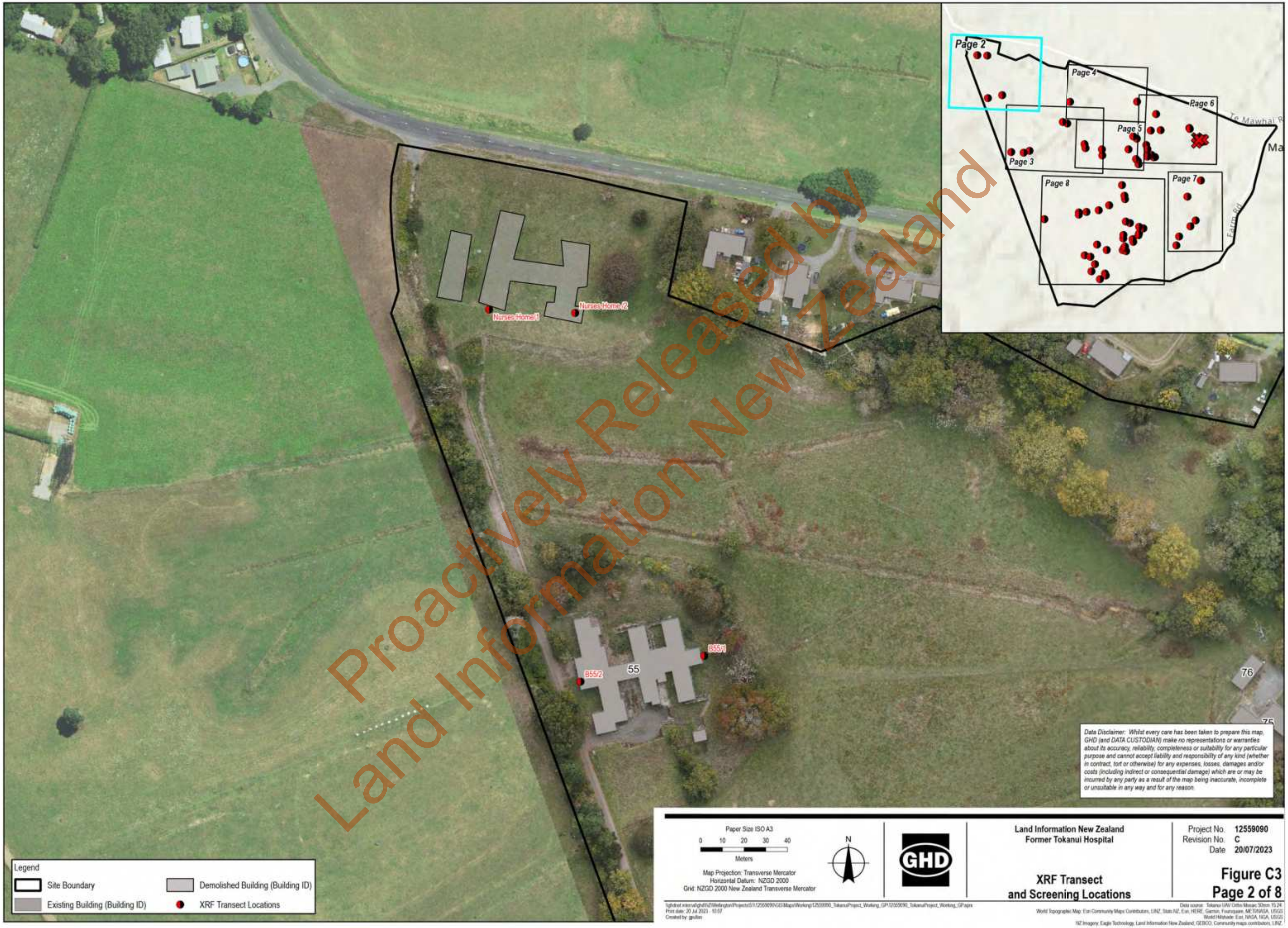
Meters
Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator
N
GHD
Land Information New Zealand
Former Tokanui Hospital
XRF Transect and Screening Locations
Project No. 12559090
Revision No. C
Date 20/07/2023
Figure C3
Page 1 of 8
Print date: 20 Jul 2023 - 10:33



Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3

0 10 20 30 40

Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

GHD

Land Information New Zealand
Former Tokanui Hospital

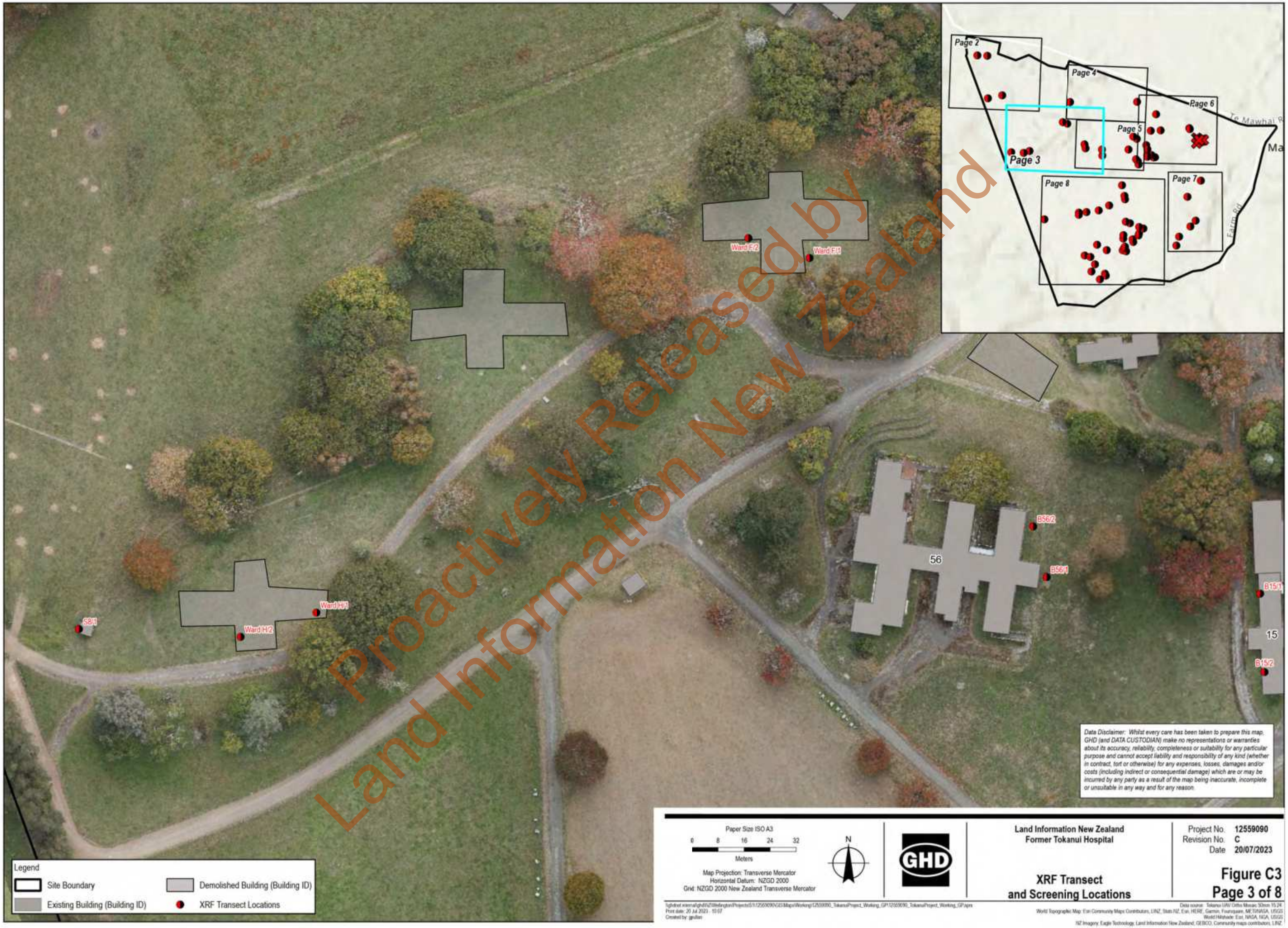
XRF Transect
and Screening Locations

Project No. 12559090
Revision No. C
Date 20/07/2023

Figure C3
Page 2 of 8

Print date: 20 Jul 2023 - 10:07

NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



Legend
- Site Boundary
- Existing Building (Building ID)
- Demolished Building (Building ID)
- XRF Transect Locations

Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3
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Meters
Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

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Land Information New Zealand
Former Tokanui Hospital

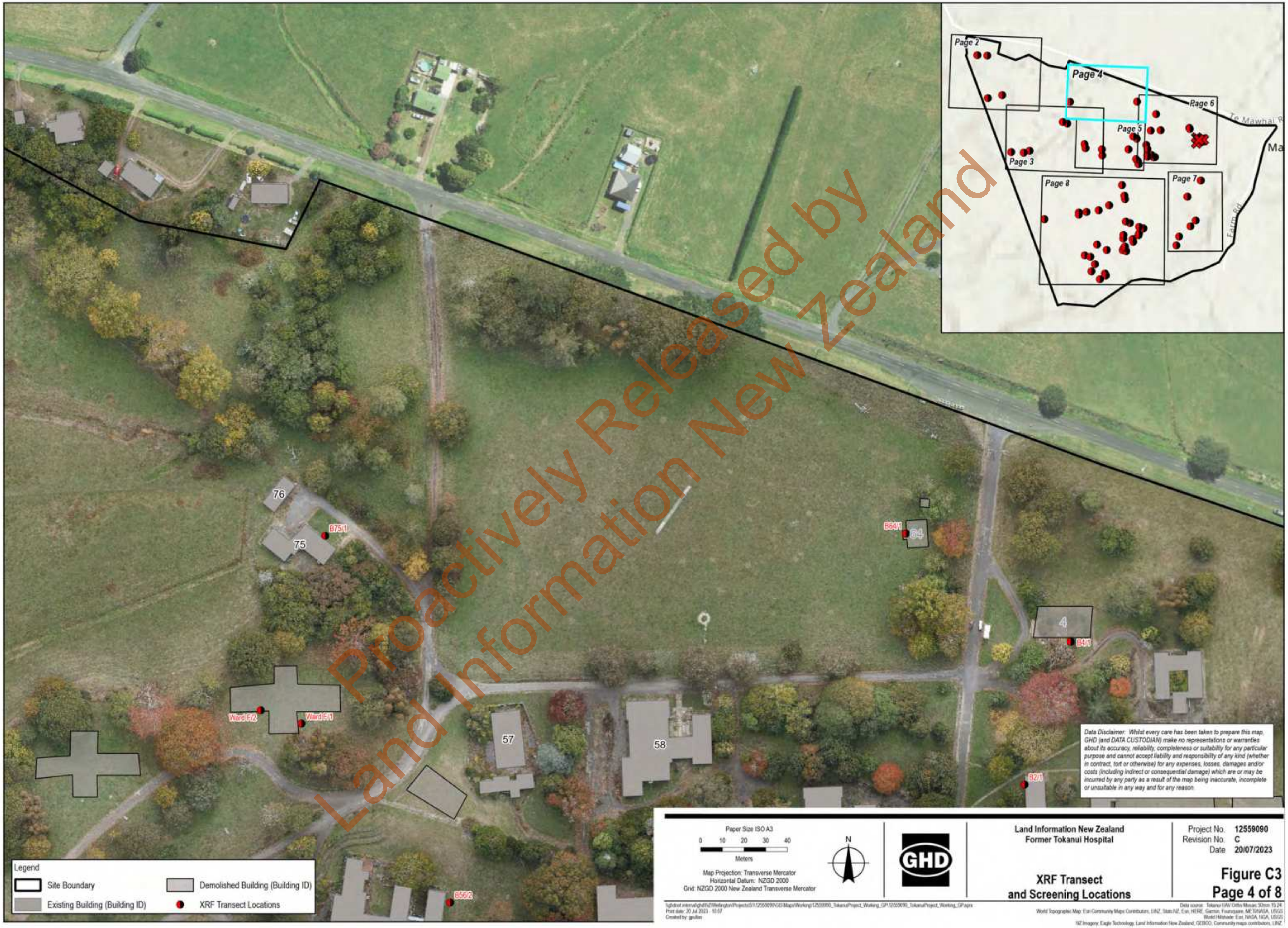
XRF Transect and Screening Locations

Project No. **12559090**
Revision No. **C**
Date **20/07/2023**

Figure C3
Page 3 of 8

Print date: 20 Jul 2023 - 10:07
Created by: gjullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

Land Information New Zealand
Former Tokanui Hospital

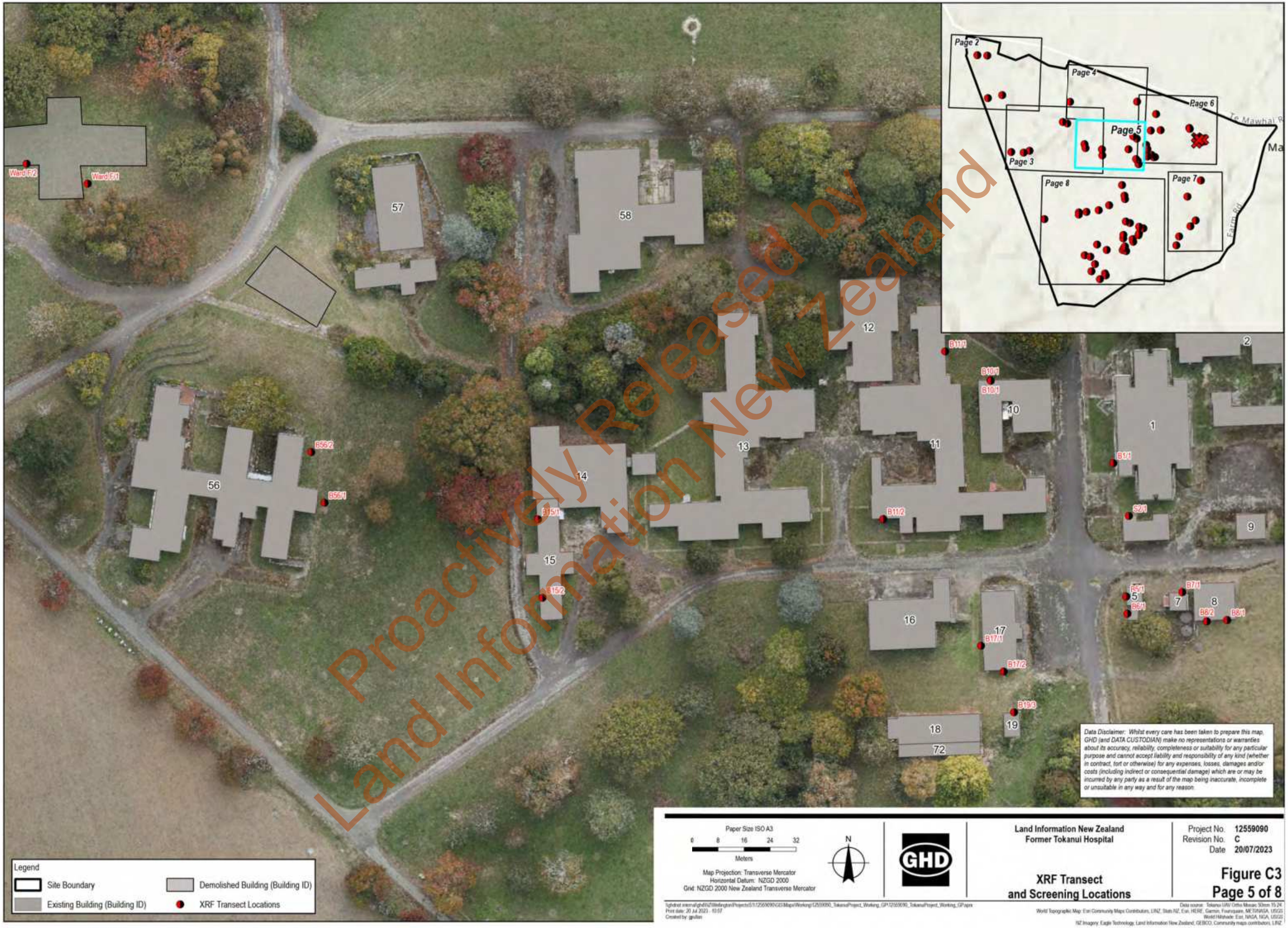
XRF Transect and Screening Locations

Project No. **12559090**
Revision No. **C**
Date **20/07/2023**

Figure C3
Page 4 of 8

Print date: 20 Jul 2023 - 10:07

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24;
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



Paper Size ISO A3

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

GHD

Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. 12559090
Revision No. C
Date 20/07/2023

Figure C3
Page 5 of 8

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
World Hillshade: Esri, NASA, NGA, USGS
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ

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Paper Size ISO A3
0 8 16 24 32
Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

GHD

Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. 12559090
Revision No. C
Date 20/07/2023

Figure C3
Page 6 of 8

Print date: 20 Jul 2023 - 10:07
Created by: gpullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24
World Topographic Map: Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS
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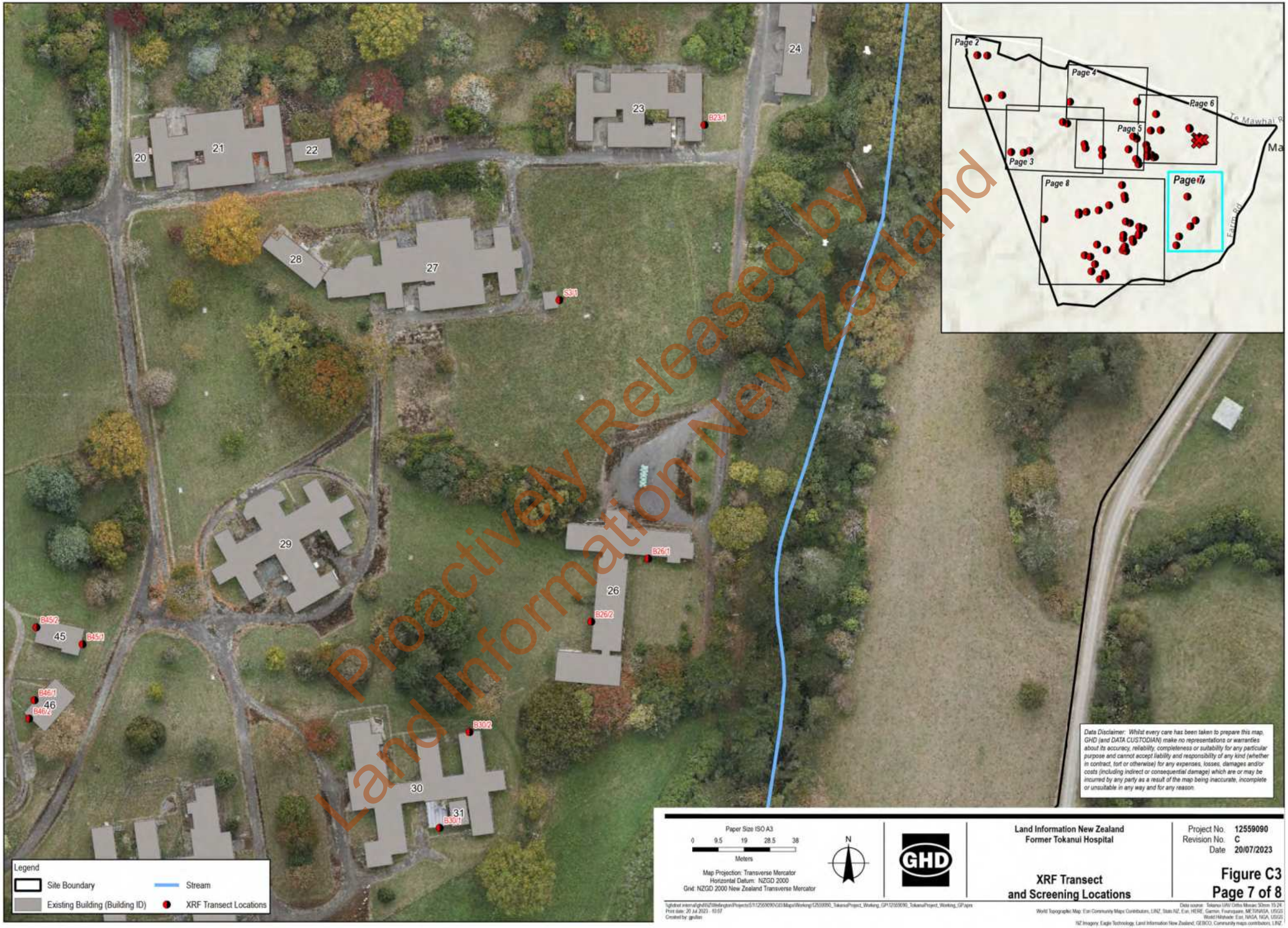
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ



Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3

0 9.5 19 28.5 38

Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

N

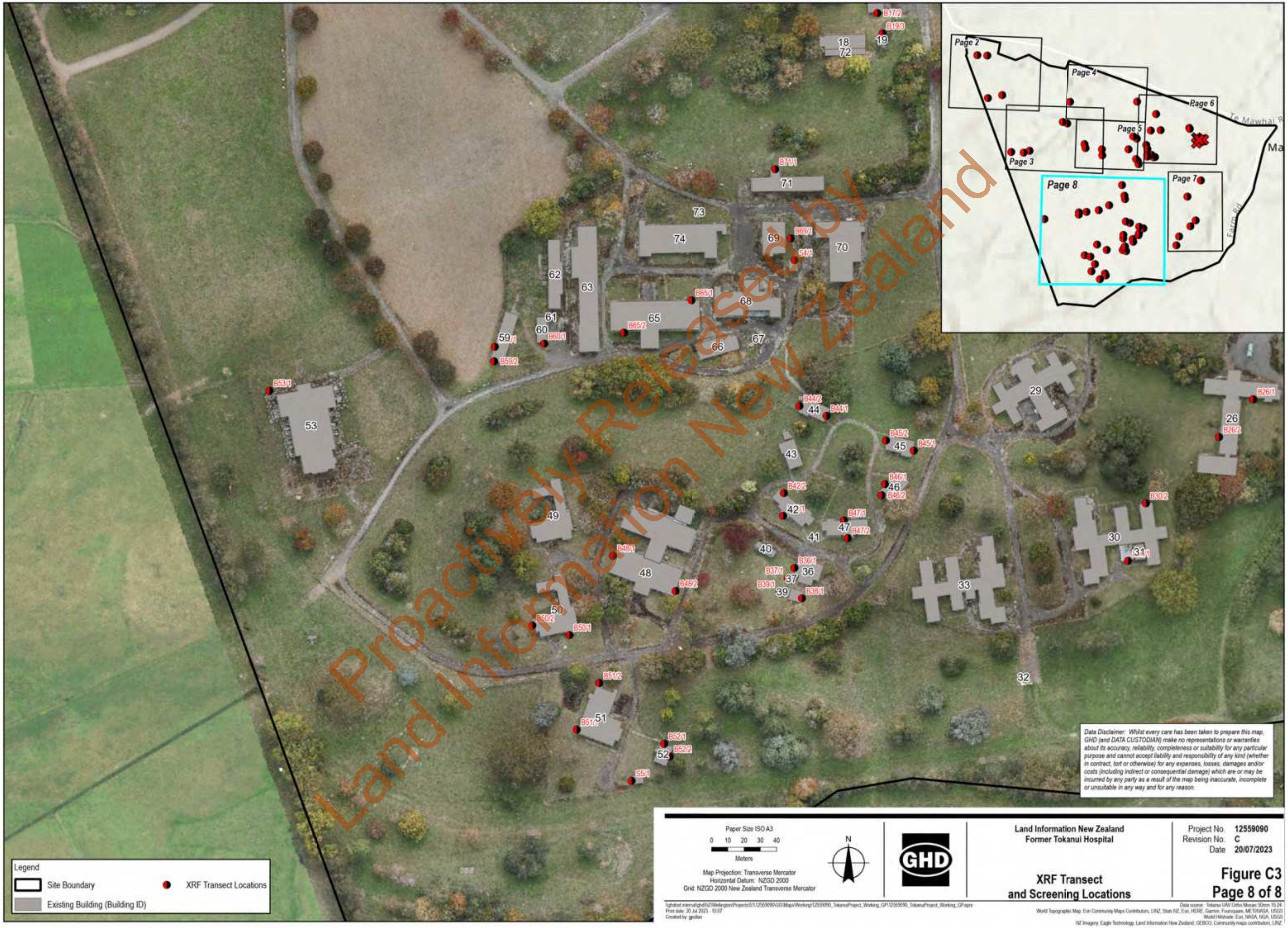
GHD

Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. 12559090
Revision No. C
Date 20/07/2023

Figure C3



Data Disclaimer: Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Paper Size ISO A3

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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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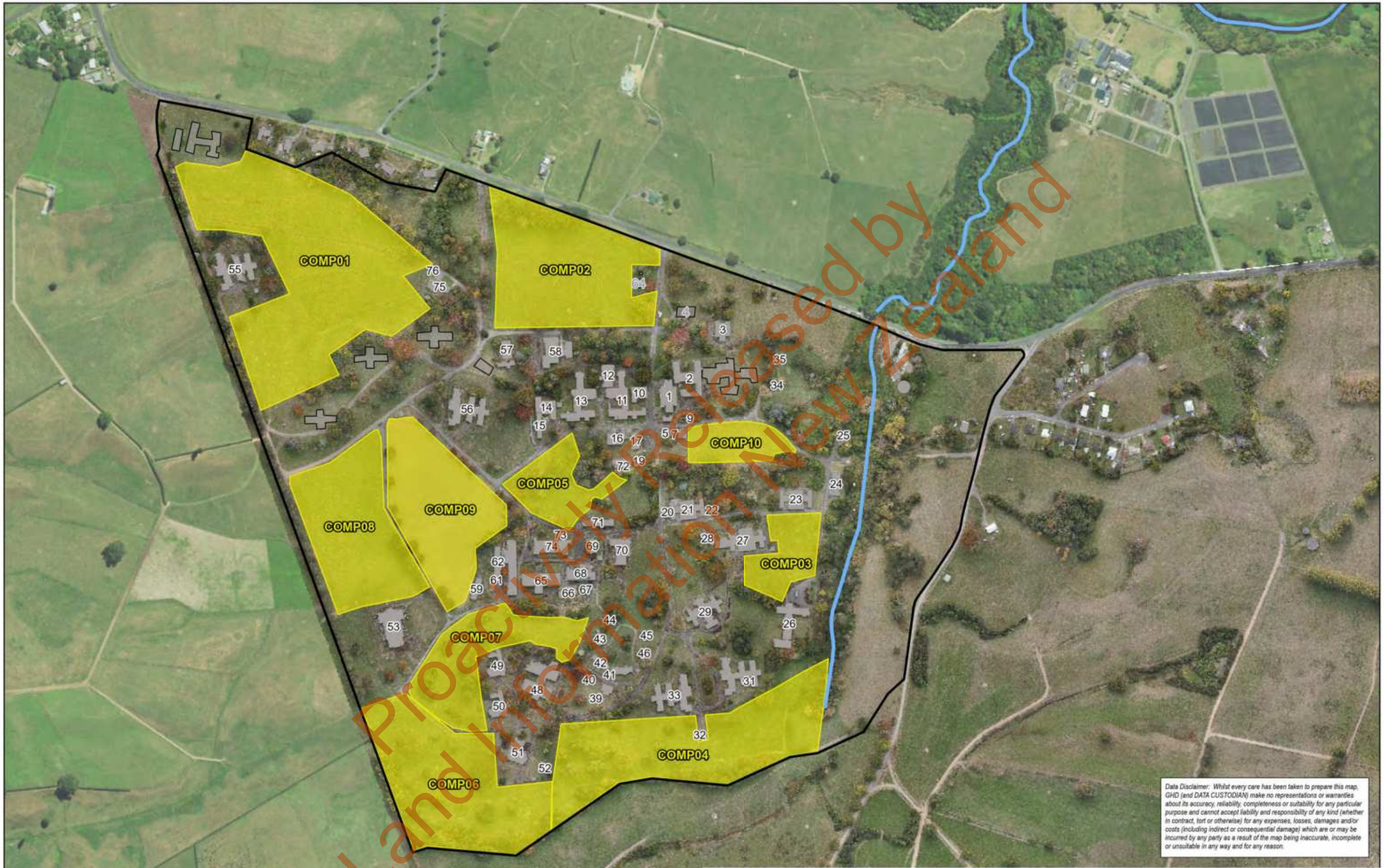
Land Information New Zealand
Former Tokanui Hospital

XRF Transect and Screening Locations

Project No. 12559090
Revision No. C
Date 20/07/2023

Figure C3
Page 8 of 8



Paper Size ISO A3
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Meters

Map Projection: Transverse Mercator
Horizontal Datum: NZGD 2000
Grid: NZGD 2000 New Zealand Transverse Mercator

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Land Information New Zealand
Former Tokanui Hospital

Composite Sampling Areas

Project No. 12559090
Revision No. C
Date 20/07/2023

FIGURE C4

Print date: 20 Jul 2023 - 10:22 Created by: gpullan

Data source: Tokanui UAV Ortho Mosaic 50mm 15.24
NZ Imagery: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors, LINZ

Appendix D

Geotechnical logs

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B19_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 19/06/2023 - 19/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		B19 TP01 0.1			Sandy Clay TOPSOIL; brown to light brown; very soft; low plasticity; some roots	M		
0.20–0.40					Sandy CLAY; dark grey			-0.2
0.40–1.00		B19 TP01 0.5; B19 TP01 1.0			Clayey fine to medium SAND; light brown to brown; very soft; low plasticity; well graded			-0.4
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B19_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 19/06/2023 - 19/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		B19 TP02 0.1			Sandy Clay TOPSOIL; brown; soft; low plasticity	M		-0.00 – -0.15
0.15–1.00		B19 TP02 0.5; B19 TP02 1.0			Clayey fine SAND; light brown with some black mottling higher up; soft; high plasticity; some silt at bottom	M		-0.15 – -1.00
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 - 0.45		B25 HA01 0.1; B25 HA01 0.5			CLAY; brown with some black mottling; firm; high plasitcity; minor sand	M		
0.45 - 1.0		B25 HA01 1.0			Clayey medium to coarse SAND; redish brown to brown (predominantly brown from 0.1 - 1.0); very soft; low plasticity; well graded	M		
1.0					Termination Depth at:1.00 m			-1

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B25_HA02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.5		B25 HA02 0.1 (0.0–0.1); B25 HA02 0.5 (0.4–0.5)		Clay	CLAY; dark brown with black mottling; soft; high plasticity; minor sand	M		0 to -0.5
0.5–1.0		B25 HA02 1.0 (0.9–1.0)		Sand	Medium to coarse SAND; brown to reddish brown; very soft; low plasticity; minor clay to 0.8m	M		-0.5 to -1
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B25_HA03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.45		B25 HA03 0.1 B25 HA03 0.5			CLAY; brown with some black mottling; soft; high plasticity; minor sand	M		
0.45–1.0		B25 HA03 1.0			Sandy coarse CLAY; brown transitioning to reddish brown; soft; low plasticity; well graded	M		
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B26_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 19/06/2023 - 19/06/2023

Total Depth (m) 0.20
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		B26 TP01 0.1			CONCRETE; some building wood and tile			0 – -0.2
0.2					Termination Depth at:0.20 m. Refusal at 0.2m; some building wood and tile.			-0.2

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B26_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 19/06/2023 - 19/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		B26 TP02 0.1			Sandy CLAY; dark brown; soft; high plasticity; some fine gravels; some bricks, asphalt present	M		
0.3–1.0		B26 TP02 0.5			Sandy CLAY; grey to dark brown; very soft; low plasticity	D		
		B26 TP02 1.0						
1.0					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B26_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 19/06/2023 - 19/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		B26 TP03 0.1 (0.0–0.1)			Sandy CLAY; brown to grey brown; soft; low plasticity; some asphalt	M		
0.3–1.0		B26 TP03 0.5 (0.4–0.5); B26 TP03 1.0 (0.9–1.0)			Sandy CLAY; brown with abundant blackish brown mottling; soft; low plasticity; minor silt near bottom	M		
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B34_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		B34 TP 01 0.10			Sandy silt TOPSOIL; dark brown			
0.15–0.45		B34 TP 01 0.50			Clayey SAND; brown to light-brown; very soft; medium to coarse grained; well graded	M		
0.45–1.00		B34 TP 01 1.00			Clayey SILT; off white with some brown mottling; soft; low plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.35		B34 TP 02 0.10			Sandy Silt TOPSOIL; dark brown; soft; high plasticity; 40% coarse cobbles and boulders, some roots	D		
0.35–0.60		B34 TP 02 0.50			CLAY; tanish brown; soft; high plasticity; minor fine sand	M		
0.60–1.00		B34 TP 02 1.00			Clayey SILT; brownish grey with red and brown mottling; firm	M		
1.00					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B34_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		B34 TP 03 0.10			COBBLES and BOULDERS; dark brown topsoil silt matrix with clay; uniformly graded	M		
0.15–0.30					SAND; reddish brown; very soft; coarse to medium grained; well graded	D		
0.30–1.00		B34 TP 03 0.50 B34 TP 03 1.00			Sandy CLAY; blackish brown; soft; low plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00		B34 TP 04 0.10			Sandy silt TOPSOIL; dark brown; soft; low plasticity	M		
0.15					Clayey SAND; brown to off-white; sand is medium to coarse grained; very soft; well graded; trace cobbles	M		-0.15
0.2					Sandy CLAY; brown to dark brown; soft; high plasticiy;	M		-0.2
0.4		B34 TP 04 0.50			Silty CLAY with some fine sand; light brown with some dark brown mottles; firm; high plasticity	M		-0.4
0.9		B34 TP 04 1.00						-0.9
1					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.25		B34 TP 05 0.10			Sandy silt TOPSOIL; dark brown; very soft; high plasticity; around 50% cobbles and boulders, some roots	M		
0.25–0.65		B34 TP 05 0.50			Sandy CLAY; brown with some black mottles; soft; high plasticity	M		
0.65–1.00		B34 TP 05 1.00			Clayey SILT; off white with some brown and black mottling; soft; high plasticity	M		
1.00					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.45		B34 TP 06 0.10; B34 TP 06 0.50			Sandy silt TOPSOIL; dark brown; very soft; high plasticity; about 20% cobbles and boulders	M		-0.05 to -0.45
0.45–1.00		B34 TP 06 1.00			Silty CLAY; greyish white with some black mottling; firm; high plasticity; moist; minor fine sand	M		-0.45 to -1
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.45		B34 TP 07 0.10 (0.00–0.10); B34 TP 07 0.50 (0.40–0.50)			Sandy silt TOPSOIL; dark brown; very soft; high plasticity; about 50% cobbles and boulders	M		
0.45–0.70					CLAY; brown with some black mottling; very soft; high plasticity; minor fine sand	M		
0.70–1.00		B34 TP 07 1.00 (0.90–1.00)			Clayey SILT; off white to yellowish brown; some red and dark brown mottling; soft; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		B35 HA01 0.10			CLAY; brown; soft; high plasticity; minor roots			-0.00 – -0.10
0.10–0.45		B35 HA01 0.50 (0.40–0.50)			SAND; yellowish brown; fine to medium grained; not cohesive; well graded	M		-0.10 – -0.45
0.45–1.00		B35 HA01 1.00 (0.90–1.00)			Silty SAND; grey with some tan mottling; fine to medium grained sand; very soft; low plasticity	M		-0.45 – -1.00
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B35_HA04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		B35 HA04 0.10			Sandy CLAY; brown; very soft; high plasticity; about 30% boulders	M		
0.20–0.60		B35 HA04 0.50			SAND; grey to light brown; fine to coarse grained; not cohesive; well graded	M		
0.60–1.00		B35 HA04 1.00			SAND; grey to light brown; medium to coarse grained; very soft; low plasticity; well graded	M		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B35_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		B35 TP 01 0.10			Sandy silt TOPSOIL; blackish brown; very soft; high plasticity	M		
0.10–0.30					Sandy SILT; off white to grey with some black mottling; soft; high plasticity	M		
0.30–0.75		B35 TP 01 0.50			Sandy CLAY; reddish brown to brown with some black mottling; firm; low plasticity	M		
0.75–1.00		B35 TP 01 1.00			Sandy SILT; off white with some light brown mottles; soft; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B35_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.55		B35 TP 02 0.10 (0.00–0.10); B35 TP 02 0.50 (0.40–0.50)			CLAY; blackish brown; very soft; high plasticity; 40% fine gravels	M		
0.55–0.85					Sandy CLAY; reddish brown with some brown to dark brown staining; firm; high plasticity	M		
0.85–1.00		B35 TP 02 1.00 (0.90–1.00)			Sandy SILT; off white to light brown with some red and black mottling; soft; high plasticity	M	Clay pipe at 0.2m bgl	
1.00					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B35_TP03

Client Land Information New Zealand	**Total Depth (m)** 1.00
Project LINZ - Former Tokanui Hospital	**Logged By** DJ
Project No. 12559090	**Checked By** CH
Site Tokanui DSI	
Location 149 Te Mawhai Rd, Tokanui	
Date Excavated 07/06/2023 - 07/06/2023	

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		B35 TP 03 0.10 (0.00–0.10)			Sandy CLAY; brownish black; very soft; high plasticity; trace red mottles	M		
0.30–0.65		B35 TP 03 0.50 (0.40–0.50)			Clayey SAND; brownish red; soft; low plasticity; medium grained, uniformly graded	M		
0.65–0.90					Sandy CLAY; off white to light brown with some brown mottling, very soft; high plasticity	M		
0.90–1.00		B35 TP 03 1.00 (0.90–1.00)			Clayey SAND; light brown to grey; very soft; well graded (fine to coarse)	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B35_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		B35 TP 04 0.10			Clayey sand TOPSOIL; brown to dark brown; medium grained sand; soft; high plasticity; uniformly graded; some roots			
0.15					CLAY; brown with black, grey and red mottles; firm; high plasticity	M		-0.15
0.40–0.50		B35 TP 04 0.50						
0.80					Sandy SILT; off white to grey with some tan mottling; soft; high plasticity	M		-0.8
0.90–1.00		B35 TP 04 1.00						
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B35_TP05

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 07/06/2023 - 07/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.5		B35 TP 05 0.10; B35 TP 05 0.50			Clayey sand TOPSOIL; dark brown; soft; low plasticity; well graded (fine to coarse); some roots			0 – -0.5
0.5 – 0.9					CLAY with minor sand; reddish brown with some black mottles; soft; high plasticity			-0.5 – -0.9
0.9 – 1.0		B35 TP 05 1.00			SAND with minor silt; off white to tan; medium to coarse grained; very soft; low plasticity; gap graded; some roots			-0.9 – -1
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B59_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 14/06/2023 - 14/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		B59 TP04 0.10			Sandy clay TOPSOIL; dark brown; very soft; high plasticity; some building material present - cinder blocks, wood	D		
0.10–0.55					SAND with some cobbles and gravels; yellowish brown; medium to coarse grained sand; not cohesive; well graded			
0.40		B59 TP04 0.50						
0.55–0.85					CLAY; dark brown to brown; soft; high plasticity	M		
0.85–1.00					Silty CLAY; yellow brown to grey with black and red mottling; soft; low plasticity	M		
0.90		B59 TP04 1.00						
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 14/06/2023 - 14/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		B63 TP01 0.10			ASPHALT			
0.15–0.30					SAND; light brown to grey; coarse grained; not cohesive; well graded; abundant asphalt, gravels and cobbles	D		
0.30–0.55		B63 TP01 0.50			Sandy CLAY; blue grey to brown; soft; high plasticity; about 30% sand - medium to coarse grained	M		
0.55–0.70					CLAY with some sand; brown with some grey; firm; low plasticity	M		
0.70–0.90					CLAY with some sand; dark grey; firm; high plasticity	M		
0.90–1.00		B63 TP01 1.00			CLAY: light brown with some grey mottling and trace red mottles; soft; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/06/2023 - 16/06/2023

Total Depth (m) 2.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.25	0 (at 0.1)	B65 TP02 0.1			Sandy Clay TOPSOIL; brown; soft; low plasticity	M		
0.25–0.95	0 (at 0.5)	B65 TP02 1.0			CLAY; grey to brown with some red mottling; firm; high plasticity; man-made material present, brick, asphalt, metal bolt	M		
0.95–2.0	0 (at 1.0); 0 (at 1.5)	B65 TP02 2.0			CLAY; blue grey; some tan and brown mottling; firm; low plasticity; moistening down to wet 2m	M		
2.0					Termination Depth at:2.00 m			

Depth scale: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2, 2.1

Elevation scale: -0.1, -0.2, -0.3, -0.4, -0.5, -0.6, -0.7, -0.8, -0.9, -1, -1.1, -1.2, -1.3, -1.4, -1.5, -1.6, -1.7, -1.8, -1.9, -2, -2.1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B65_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/06/2023 - 16/06/2023

Total Depth (m) 1.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.4	0.1 (at 0.1)	B65 TP03 0.1			Coarse sand and coarse gravel COBBLES; brown to black (asphalt); not cohesive; gap graded; at 0.4m: rusty brown clay contact with clay and asphalt			
0.4–1.5	0 (at 0.5); 28.2 (at 1.0); 26.9 (at 1.5)	B65 TP03 0.5; B65 TP03 1.5			CLAY; blue grey to brown; very stiff; high plasticity; softening and wettening down	M		
1.5					Termination Depth at:1.50 m			-1.5

Notes at 0.4m: Rustly brown clay contact with clay and asphalt

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 14/06/2023 - 14/06/2023

Total Depth (m) 0.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		B67 HA01 0.10			SAND with gravel and cobbles; brown to yellow brown; not cohesive	M		
0.1–0.5		B67 HA01 0.50			SAND with some cobbles and boulders; yellow brown to brown; medium to coarse sand; not cohesive	M		
0.5					Termination Depth at:0.50 m			-0.5

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 14/06/2023 - 14/06/2023

Total Depth (m) 0.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		B67 HA02 0.10			ASPHALT sand with cobbles and boulders; blackish grey; fine to coarse grained; not cohesive; gap graded	D		
0.2–0.5		B67 HA02 0.50			Sandy COBBLES; yellowish brown; not cohesive; abundant asphalt material	M		
0.5					Termination Depth at:0.50 m			-0.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 14/06/2023 - 14/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.2		B71 TP01 0.10			Sandy clay TOPSOIL; brown; soft; low plasticity	M		0 – -0.2
0.2 – 0.75		B71 TP01 0.50			CLAY; mottled brown and grey with some black mottles; firm; high plasticity	M		-0.2 – -0.75
0.75 – 1.0		B71 TP01 1.00			Sandy CLAY with some fine gravel; mottled black and brown; soft; high plasticity;	W		-0.75 – -1
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 14/06/2023 - 14/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.25		B71 TP02 0.10			Sandy clay TOPSOIL; brown; soft; low plasticity	M		0 to -0.25
0.25–0.75		B71 TP02 0.50			CLAY; brown with some black mottling; very soft; high plasticity	M		-0.25 to -0.75
0.75–1.00		B71 TP02 1.00			Sandy CLAY; mottled grey; brown and blue grey with some rust coloured mottles; soft; high plasticity; glass present	M		-0.75 to -1
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B73_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		B73 TP01 0.1			Sandy Clay TOPSOIL; dark brown; soft; low plasticity	M		
0.3–0.9		B73 TP01 0.5			CLAY; tan to light brown, black and reddish mottling; firm; high plasticity; asbestos at 0.1m; 3 depths for glass and metals, eg. glass and metals at 0.1m	M		
0.9–1.0		B73 TP01 1.0			SILT; grey with black and tan mottling; soft; high plasticity	M		
1.0					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes Asbestos at 0.1m only; 3 depth for glass and metals EG glass and metals at 0.1m

This log is not intended for geotechnical purposes.

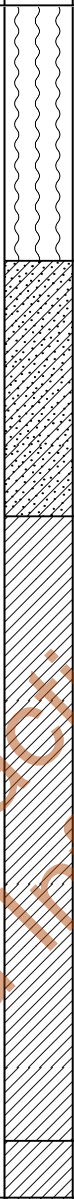
Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/06/2023 - 16/06/2023

Total Depth (m) 2.10
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.45	0	B74 TP08 0.1			Sandy Clay TOPSOIL; brown; soft; low plasticity	M	Some clay pipe remains	
0.45–0.9	0	B74 TP08 0.5			Sandy CLAY; brown to dark brown; firm; low plasticity	M		
0.9–2.0	0	B74 TP08 1.0			CLAY; yellowish brown to brown; soft; low plasticity; black and tan mottling from 1.2m	M		
	0.2	B74 TP08 1.5						
	0.2	B74 TP08 2.0						
2.0–2.1	0.4	B74 TP08 2.1			Grey and brown clay at bottom of hole; very light seepage		Looking for water table - not found	
2.1					Termination Depth at:2.10 m			

Depth scale: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2, 2.1, 2.2
Elevation scale: -0.1, -0.2, -0.3, -0.4, -0.5, -0.6, -0.7, -0.8, -0.9, -1, -1.1, -1.2, -1.3, -1.4, -1.5, -1.6, -1.7, -1.8, -1.9, -2, -2.1, -2.2

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B74_TP09

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/06/2023 - 16/06/2023

Total Depth (m) 2.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.4	0.3	B74 TP09 0.1			Sandy Clay TOPSOIL; brown; very soft; low plasticity; minor roots	M		
0.4–0.55	0.4	B74 TP09 0.5			CLAY; light grey to light brown; firm; high plasticity; with red and rusty red mottles	M		
0.55–2.0	0.3	B74 TP09 1.0			SILT; brownish grey with some rusty red mottles; firm; high plasticity; wet; Increasing clay content (some to minor) - 1.6 to 1.7m. Sandy Silt from 1.9 - 2.0m			
	0.4	B74 TP09 1.5						
	0	B74 TP09 2.0						
2.0					Termination Depth at:2.00 m			-2

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 0.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		BWL TP 01 0.10			Sandy CLAY; brown; firm; high plasticity; dry but cool to touch	D		
0.15–0.50		BWL TP 01 0.50			SILT; off white with some reddish mottling; firm; high plasticity; moist- cool to touch	M		
0.5					Termination Depth at:0.50 m			-0.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit BWL_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		BWL TP 02 0.10			Sandy CLAY; brown to dark brown; very soft; high plasticity; some cobbles	M		
0.30–0.70		BWL TP 02 0.50			Clayey SAND; greyish brown, very soft, low plasticity, uniformly graded	M		
0.70–1.00		BWL TP 02 1.00			SILT; off white with red mottling; firm; high plasticity	M		
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.22		BWL TP 03 0.10			CLAY; dark brown; very soft; high plasticity; some roots	M		
0.22–0.97		BWL TP 03 0.50			SILT; light grey with some reddish brown mottling; firm; high plasticity;	M		
		BWL TP 03 1.00						
0.97–1.00					Sandy SILT with about 30% medium grained sand	W		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit BWL_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		BWL TP 04 0.10			CLAY; brown with some reddish mottling; soft; high plasticity; some roots	M		
0.20–0.70		BWL TP 04 0.50			SAND; brownish grey to light grey; medium to coarse grained; not cohesive; well graded	M		
0.70–1.00		BWL TP 04 1.00			SAND; grey with some reddish brown staining; medium to coarse grained; very soft; low plasticity; gap graded	M		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 0.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		BWL TP 05 0.10 (0.00–0.10)			CLAY; brown; soft; high plasticity; some roots	M		
0.15–0.30					SAND; reddish brown; medium to coarse grained; very soft; low plasticity; well graded			
0.30–0.50		BWL TP 05 0.50 (0.40–0.50)			SILT; off white with rust-red and dark grey mottling; firm; high plasticity;	M		
0.50					Termination Depth at:0.50 m			-0.5

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 0.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		BWL TP 06 0.10			CLAY; brown to dark brown with tan mottling; very soft; low plasticity; about 20% roots	M		
0.1–0.5		BWL TP 06 0.50			Sandy CLAY; reddish brown with some grey mottling; firm; low plasticity	M		
0.5					Termination Depth at:0.50 m			-0.5

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS01_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 0.70
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		DS01 TP01 0.10			Clay TOPSOIL; brown; soft; high plasticity	M		-0.05 – -0.2
0.2–0.7		DS01 TP01 0.50			Silty SAND; grey to light brown; very soft; high plasticity	M	Electric cable at 0.5m bgl. End of hole at 0.7m due to cable risk.	-0.2 – -0.7
0.7					Termination Depth at:0.70 m			-0.7

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		DS01 TP02 0.10			Sandy CLAY; brown; very soft; low plasticity; about 20% angular boulders	M		
0.15–0.45		DS01 TP02 0.50			CLAY; reddish brown with black mottling; very stiff; high plasticity	D		
0.45–0.80					SAND with minor red clay; brown to reddish brown; medium to coarse sand; not cohesive	M		
0.80–1.00		DS01 TP02 1.00			Sandy clayey SILT; grey to brown; stiff; low plasticity	D		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS01_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.05, 0.1		DS01 TP03 0.10			Clay TOPSOIL; brown; very soft; high plasticity	M		-0.05, -0.1
0.15, 0.2, 0.25, 0.3, 0.35, 0.4					CLAY; reddish brown with black mottling; firm; high plasticity	M		-0.15, -0.2, -0.25, -0.3, -0.35, -0.4
0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85		DS01 TP03 0.50			SILT; grey with black sticks- possible plant material; soft; high plasticity	M		-0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85
0.9, 0.95		DS01 TP03 1.00			Sandy SILT; grey to yellow brown with black sticks; very soft; high plasticity	M		-0.9, -0.95
1, 1.05, 1.1, 1.15, 1.2, 1.25					Termination Depth at:1.00 m			-1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		DS01 TP04 0.10			Clay with minor sand TOPSOIL; brown; soft; high plasticity	M		
0.15–0.35					CLAY; reddish brown with black mottling; very stiff; high plasticity	M		
0.35–0.55		DS01 TP04 0.50			Sandy CLAY; grey; very stiff; high plasticity	M		
0.55–0.75					Sandy SILT; grey to light grey; stiff; low plasticty	M		
0.75–1.00		DS01 TP04 1.00			Silty SAND; greyish brown; medium to coarse grained sand; very soft; high plasticity; well graded	M		
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS01_TP05

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		DS01 TP05 0.10			Clay with minor sand TOPSOIL; brown; very soft; high plasticity	M		
0.15–0.60		DS01 TP05 0.50			CLAY; reddish grey/brown with dark grey staining; firm; high plasticity	M		
0.60–1.00		DS01 TP05 1.00			Silty SAND; reddish brown; fine to medium grained sand; very soft; low plasticity; gap graded	M		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 – 0.1		DS02 TP01 0.1			Clayey fine to medium SAND; yellowish brown; very soft; low plasticity	D		0 – -0.1
0.4 – 0.5		DS02 TP01 0.5						-0.4 – -0.5
0.5 – 1.0					Sandy SILT; light brown; soft; high plasticity	M		-0.5 – -1
0.9 – 1.0		DS02 TP01 1.0						-0.9 – -1
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.4		DS02 TP03 0.1			Sandy Clay TOPSOIL; dark brown to brown; stiff; low plasticity	D		
0.4–1.0		DS02 TP03 0.5			CLAY; greyish brown with some black mottling; firm; high plasticity	M		
		DS02 TP03 1.0						
1.0					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS02_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		DS02 TP04 0.1			Sandy Clay TOPSOIL; dark brown; soft; high plasticity	M		
0.30–0.95		DS02 TP04 0.5			Sandy SILT; greyish brown; soft; low plasticity	D		
0.95–1.00		DS02 TP04 1.0			CLAY; brown with black mottles; firm; high plasticity	M		-1
1.00					Termination Depth at:1.00 m			

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/06/2023 - 20/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 – 1.0		DS02 TP05 0.1 DS02 TP05 0.5 DS02 TP05 1.0			Clayey SILT; brownish grey; soft; high plasticity; trace to minor sand from 0.3 - 0.8m, becoming tan to brown from 0.9 - 1.0m	M		
1					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS03_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/06/2023 - 21/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		DS03 TP01 0.1			Sandy Clay TOPSOIL; dark brown; firm; low plasticity	M		
0.2–0.9		DS03 TP01 0.5			Clayey SAND; medium to coarse; yellow brown to brown; very soft; low plasticity; well graded	M		
0.9–1.0		DS03 TP01 1.0			Sandy SILT; grey with tan and black mottles; soft; low plasticity	M		
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS03_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/06/2023 - 21/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.15		DS03 TP02 0.1			Clay TOPSOIL; dark brown; soft; low plasticity; trace sand; abundant roots			
0.15 – 0.55		DS03 TP02 0.5			Sandy SILT; yellow brown with some black mottles; soft; high plasticity	M		
0.55 – 1.0		DS03 TP02 1.0			Medium to coarse SAND; brown to grey; very soft; low plasticity; well graded; trace silt	M		
1.0					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS03_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/06/2023 - 21/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		DS03 TP03 0.1			CLAY; dark greyish brown; soft; low plasticity; minor sand	M		0 to -0.2
0.2–0.9		DS03 TP03 0.5			Sandy SILT; brown; some black mottling; soft; high plasticity; some tile present	M		-0.2 to -0.9
0.9–1.0		DS03 TP03 1.0			Sandy SILT; light brown; some black mottles; soft; high plasticity; some blue-grey clay at bottom	M		-0.9 to -1
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DS03_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/06/2023 - 21/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		DS03 TP04 0.1			Sandy Clay TOPSOIL; brown; soft; low plasticity; fill present - glass, tile, metal wire	M		
0.2–0.8		DS03 TP04 0.5			Sandy CLAY; yellowish brown with black and red mottling; stiff; low plasticity; glass bottle present (broken)	M		
0.8–1.0		DS03 TP04 1.0			Medium to coarse SAND; grey to light brown; not cohesive; well graded; wet			
1.0					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2					CLAY; brown with tan mottling; soft; low plasticity	M		
0.2–0.7					SILT; off white with red mottling; firm; high plasticity	M		
0.7–0.9					SILT; off white with reddish to tan and grey mottling; firm; high plasticity	M		
0.9					Termination Depth at:0.90 m			-0.9

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompA2

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.25		HT COMPA2 0.10			CLAY; dark brown; soft; low plasticity; about 10% sand	M		
0.25–1.00		HT COMPA2 0.50 HT COMPA2 1.00			Silty CLAY; grey to tan with rust-red mottling; firm; high plasticity	D		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.25		HT COMPA3 0.10			CLAY; dark brown with black mottling; soft; low plasticity	M		0.00 to -0.25
0.25–0.80		HT COMPA3 0.50			CLAY with trace sand; yellowish brown with dark grey mottling; soft; low plasticity	M		-0.25 to -0.8
0.80–1.00		HT COMPA3 1.00			SILT with some fine sand; grey with tan and rust coloured mottling; firm; high plasticity	M		-0.8 to -1
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompA4

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.35		HT COMPA4 0.10			CLAY; dark brown; soft; high plasticity	M		0 – -0.35
0.35 – 0.9		HT COMPA4 0.50			CLAY; light brown with blak mottling; firm; low plasticity	M	Clay drainage pipe at 0.6m bgl	-0.35 – -0.9
0.9 – 1		HT COMPA4 1.00			SILT; light grey with black mottling; firm; high plasticity	M		-0.9 – -1
1					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.50		HT COMPB1 0.10; HT COMPB1 0.50			CLAY with trace sand; dark brown; soft; high plasticity; trace roots			
0.50–0.90					CLAY; grey with some black mottling; firm; low plasticity	D		
0.90–1.00		HT COMPB1 1.00			CLAY; grey with some black mottling; very stiff; low plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		HT COMPB2 0.10			CLAY with minor sand; dark brown; soft; low plasticity	M		
0.15–0.45		HT COMPB2 0.50			FILL FILL material - tile, asphalt, sand			
0.45–0.80					SAND; brown to grey brown; non-cohesive; well graded	M		
0.80–1.00		HT COMPB2 1.00			CLAY; grey with black and reddish brown mottling; firm; high plasticity	M		
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompB3

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		HT COMPB3 0.10			CLAY with trace sand; brown; soft; high plasticity	M		
0.3–0.9		HT COMPB3 0.50			CLAY; grey with some black and tan mottles; firm; low plasticity	D		
0.9–1.0		HT COMPB3 1.00			Sandy SILT; grey to light brown; very soft; low plasticity	M		
1.0					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		HT COMPB4 0.10			Sandy CLAY; brown; soft; low plasticity; about 25% sand	M		
0.30–0.95		HT COMPB4 0.50			SAND; yellowish brown to brown; fine to coarse sand; very soft; low plasticity; well graded	M		
		HT COMPB4 1.00						
0.95–1.00					CLAY; grey with tan mottling; firm; high plasticity	M		
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompC1

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		HT COMPC1 0.10 (0.00–0.10)			Sand TOPSOIL; dark brown; fine grained; not cohesive; abundant asphalt material	D		
0.30–0.80		HT COMPC1 0.50 (0.40–0.50)			CLAY; grey with rust-red mottling; stiff; high plasticity	M		
0.80–1.00		HT COMPC1 1.00 (0.90–1.00)			Silty SAND; grey to light brown; fine grained sand; very soft; high plasticity; abundant asphalt	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		HT COMPC2 0.10			Clay TOPSOIL; dark brown; very soft; high plasticity; some roots	M		
0.15–0.75		HT COMPC2 0.50			SAND with minor silt; light brown; fine to medium grained; very soft; low plasticity; well graded	M		
0.75–1.00		HT COMPC2 1.00			SAND; grey to rusty red; medium to coarse grained; very soft; low plasticity; well graded	M		
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompC3

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		HT COMPC3 0.10			Clay with trace sand TOPSOIL; brown; soft; low plasticity	D		
0.20–0.90		HT COMPC3 0.50			CLAY; grey with tan and brown mottling; firm; high plasticity	M		
0.90–1.00		HT COMPC3 1.00			SAND with some silt; grey; fine grained; very soft; low plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		HT COMPC4 0.10			CLAY; brown with reddish brown mottles; firm; high plasticity	M		
0.1–0.9		HT COMPC4 0.50			Sandy silty CLAY; yellowish brown with tan mottles, soft, high plasticity	M		
0.9–1.0		HT COMPC4 1.00			SAND with some silt; grey with reddish brown mottles; fine to medium sand; very soft; high plasticity	W		
1					Termination Depth at:1.00 m			-1

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.40		HT COMPD1 0.10			CLAY with trace fine sand; dark brown; very soft; low plasticity	M		0 – -0.40
0.40 – 0.85		HT COMPD1 0.50			CLAY; brownish grey with black mottling; firm; low plasticity; about 10% fine sand	M		-0.40 – -0.85
0.85 – 1.00		HT COMPD1 1.00			SILT with trace clay; grey to yellowish brown with brown and rust coloured mottling; soft; high plasticity	M		-0.85 – -1.00
1.00					Termination Depth at:1.00 m			-1.00

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		HT COMPD2 0.10			Sandy CLAY; brown; soft; high plasticity	M		
0.30–0.80		HT COMPD2 0.50			Silty SAND; greyish brown; medium to coarse grained; soft; low plasticity	W		
0.80–1.00		HT COMPD2 1.00			SILT; light grey with yellow and black mottles; firm; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
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TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompD3

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		HT COMPD3 0.10			CLAY; brown; very soft; high plasticity; some roots	M		
0.25					Sandy CLAY; brown with tan and dark brown mottling; soft; low plasticity	M		-0.25
0.40–0.50		HT COMPD3 0.50						
0.90–1.00		HT COMPD3 1.00						
0.98					SAND; grey; fine to medium grained; not cohesive; well graded	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25
Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		HT COMPD4 0.10			CLAY with trace sand ; brown; soft; high plasticity; some roots	M		
0.40–0.50		HT COMPD4 0.50						
0.50–1.00					SAND; grey to greyish brown; fine to coarse grained; not cohesive; well graded			-0.5 to -1
0.90–1.00		HT COMPD4 1.00						
1.00					Termination Depth at:1.00 m			-1

Notes

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Drilling Abbreviations
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Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		HT COMPE1 0.10 (0.00–0.10)			Sandy CLAY; brown; soft; high plasticity	M		0.00 to -0.20
0.20–0.65		HT COMPE1 0.50 (0.40–0.50)			Silty SAND; brown with some reddish brown mottling; fine grained sand; very soft; low plasticity	M		-0.20 to -0.65
0.65–1.00		HT COMPE1 1.00 (0.90–1.00)			Clayey SAND; brownish red to grey; medium to coarse grained sand; very soft; low plasticity	M		-0.65 to -1.00
1.00					Termination Depth at:1.00 m			-1

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.5		HT COMPE2 0.10 (0.0–0.1); HT COMPE2 0.50 (0.4–0.5)			CLAY; dark brown; soft; low plasticity	M		
0.5–0.8					Sandy CLAY; grey-brown to dark brown; soft; high plasticity	M	Disused pipe at 0.6m bgl	-0.5
0.8–1.0		HT COMPE2 1.00 (0.9–1.0)			SILT with some sand; grey to brownish grey with some grey mottling; soft; high plasticity;	M		-0.8
1.0					Termination Depth at:1.00 m			-1

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		HT COMPE3 0.10			FILL Clayey FILL; brown with black mottling; soft; low plasticity; fill material present - bricks to 0.2m	M		
0.2–0.35					CLAY; brown with black mottling; soft; low plasticity	M		
0.35–0.95		HT COMPE3 0.50 HT COMPE3 1.00			Clayey SAND; reddish brown; medium to coarse grained sand; very soft; low plasticity	M		
0.95–1.0					Clayey SAND; light grey to reddish brown; fine to coarse grained sand; very soft; low plasticity	W		
1.0					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompE4

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		HT COMPE4 0.10			FILL Clayey sand FILL; dark brown to brown; coarse grained sand; non-cohesive; uniformly graded; abundant fill material - asphalt, brick			-0.05, -0.1
0.10–0.20					FILL Fill material			-0.15, -0.2
0.20–0.30					CLAY; brown with black mottling; soft; low plasticity	M		-0.25, -0.3
0.30–0.80		HT COMPE4 0.50 (0.40–0.50)			Silty SAND; yellowish brown; fine to medium grained sand; very soft; high plasticity; some fill still present	M	Water pipe encountered at 0.6m bgl	-0.35 to -0.8
0.80–1.00		HT COMPE4 1.00 (0.90–1.00)			SILT; grey with black and tan mottling; firm; high plasticity	M		-0.85 to -1
1.00					Termination Depth at:1.00 m			-1.05 to -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.40		HT COMPF1 0.10			CLAY with some minor sand; brown; soft; low plasticity; some burnt fibrous material present (<5%)	M		
0.40–0.70		HT COMPF1 0.50			CLAY: grey with black mottling; firm; high plasticity	M		
0.70–1.00		HT COMPF1 1.00			CLAY; brown with black mottling; soft; high plasticity	W	Wet due to clay drainage pipe at 0.7m bgl	
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.5		HT COMPF2 0.10; HT COMPF2 0.50			CLAY; brown; soft; high plasticity	M		
0.5–0.6					Clayey SILT; yellow brown to brown; soft; high plasticity	M	Disused water pipe at 0.65m bgl	
0.6–1.0		HT COMPF2 1.00			Sandy CLAY; grey with black mottling; firm; high plasticity	M	Drainage pipe at 0.8m bgl	
1.0					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.35		HT COMPF3 0.10			CLAY with trace sand; brown; soft; high plasticity; some roots	M		
0.35–0.80		HT COMPF3 0.50			Sandy, clayey SILT; dark brown; soft; high plasticity; some fill material present - black, thin, breakable/brittle, possibly burnt wood			
0.80–1.00		HT COMPF3 1.00			SILT; grey to tan with some black mottling; firm; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompF4

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 09/06/2023 - 09/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		HT COMPF4 0.10			CLAY with some sand; brown; low plasticity	M		
0.10–0.40					CLAY; yellowish brown; firm; high plasticity			
0.40–1.00		HT COMPF4 0.50 (0.40–0.50); HT COMPF4 1.00 (0.90–1.00)			CLAY; brown to dark brown with some yellow mottling; soft; high plasticity	W		
1.00					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompG1

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		HT COMPG1 0.10			Sandy clay with minor sand TOPSOIL; brown; soft; high plasticity; some roots	M		
0.30–0.85		HT COMPG1 0.50			Sandy CLAY; light yellow brown to brown; firm; high plasticity	M		
0.85–1.00		HT COMPG1 1.00			SILT with trace sand; grey to light brown with brown mottling; soft; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompG2

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		HT COMPG2 0.10			CLAY with trace sand; brown to dark brown; soft; low plasticity	M		
0.30–0.75		HT COMPG2 0.50			Sandy CLAY; yellow brown to dark brown; firm; high plasticity			
0.75–1.00		HT COMPG2 1.00			SILT with some clay; grey to brown with some red and black mottling; soft; high plasticity	M		
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_CompG3

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		HT COMPG3 0.10 (0.00–0.10)			CLAY with minor sand; brown; soft; low plasticity	M		
0.20–0.60		HT COMPG3 0.50 (0.40–0.50)			CLAY; brownish grey to dark brown; firm; low plasticity	M		
0.60–1.00		HT COMPG3 1.00 (0.90–1.00)			SILT; off white to tan with some brown mottling; stiff; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.35		HT COMPH1 0.10			CLAY; dark brown; very soft; high plasticity	M		
0.35–0.85		HT COMPH1 0.50			SAND with minor clay; yellowish brown with some black staining; uniformly graded; low plasticity			
0.85–1.00		HT COMPH1 1.00			Silty SAND; grey with some black mottling; fine grained; uniformly graded; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.60		HT COMPH2 0.10 (0.00–0.10); HT COMPH2 0.50 (0.40–0.50)			CLAY; brown to dark brown; very soft; high plasticity; about 30% gravels, cobbles and boulders	M		
0.60–0.80					Sandy CLAY; greyish brown with some black mottling; firm; low plasticity;	M		
0.80–1.00		HT COMPH2 1.00 (0.90–1.00)			SAND with trace clay; reddish brown; medium to coarse grained; not cohesive; uniformly graded			
1.00					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.40		HT COMPH3 0.10			Silty CLAY; dark brown; very soft; high plasticity; about 10% cobbles	M	Water pipe encountered at 0.5m	0 to -0.4
0.40–0.95		HT COMPH3 0.50			CLAY with trace fine sand; reddish brown; soft; high plasticity	M		-0.4 to -0.95
0.95–1.00		HT COMPH3 1.00			SAND with trace clay; reddish brown to grey; medium to coarse grained; not cohesive; well graded			-0.95 to -1
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.4		HT TP 29 0.10			CLAY; brown; very soft; high plasticity; about 40% coarse gravel; fill material present- plate, glass	M		
0.4–0.8		HT TP 29 0.50			SAND; tanish brown; fine to medium grained; soft; low plasticity; well graded			
0.8–1.0		HT TP 29 1.00			SAND; grey with some reddish brown staining; medium to coarse grained; uniformly graded; non-cohesive			
1.0					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.25		HT TP 30 0.10			Sandy SILT; dark brown; very soft; high plasticity; about 30% cobbles and gravels	M		
0.25–0.90		HT TP 30 0.50			Silty CLAY with minor sand and fine gravels; brownish grey with some black mottling; firm; high plasticity	M		
0.90–1.00		HT TP 30 1.00			SAND; brown to reddish brown with trace black mottling; fine to medium grained; very soft; low plasticity; well graded			
1.00					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 08/06/2023 - 08/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.45		HT TP 31 0.10			Gravelly clay TOPSOIL; dark brown; very soft; high plasticity; about 20% fine to medium grained gravels	M		
		HT TP 31 0.50						
0.45–0.90					Silty CLAY with minor sand; brownish grey; some black mottling; high plasticity	M		
0.90–1.00		HT TP 31 1.00			SILT with trace fine sand; grey to off white with some black mottling; soft; high plasticity	M		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit NUR_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 13/06/2023 - 13/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		NUR TP01 0.10			Sandy clay TOPSOIL; brown; soft; low plasticity; some roots	D		
0.15–1.00		NUR TP01 0.50 NUR TP01 1.00			FILL Clayey sandy FILL; brown to light brown; fine to coarse; soft; low plasticity; well graded; building material present - metal cable, sheet insulation, rebar, concrete, clay pipe, brick, glass, wood	D		
1.00					Termination Depth at:1.00 m			-1

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 13/06/2023 - 13/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		NUR TP02 0.10			Clayey SAND; brown; fine to medium grained; soft; low plasticity; clay pipe remains present; some man-made cobbles (concrete)	D		
0.15–1.00		NUR TP02 0.50 NUR TP02 1.00			FILL Sandy clayey FILL; brown; soft; low plasticity; building material present - brick, tar seal, paint flakes, nails, concrete, rusted metal can, plastic bag	D		
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

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Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit NUR_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 13/06/2023 - 13/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		NUR TP03 0.10			Clayey sand TOPSOIL; brown; medium to coarse grained sand; soft; low plasticity; tarseal present, some roots near surface	D		
0.1–0.5		NUR TP03 0.50			Sandy CLAY; brown; soft; low plasticity; well graded	D		
0.5–1.0		NUR TP03 1.00			FILL Fill material; brick, concrete, tar seal, fibrous asbestos, paint flakes	D		
1.0					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit NUR_TP04

Client Land Information New Zealand	**Total Depth (m)** 1.00
Project LINZ - Former Tokanui Hospital	**Logged By** DJ
Project No. 12559090	**Checked By** CH
Site Tokanui DSI	
Location 149 Te Mawhai Rd, Tokanui	
Date Excavated 13/06/2023 - 13/06/2023	

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.10		NUR TP04 0.10			Clayey sand TOPSOIL; brown; medium grained sand; not cohesive; uniformly graded; some roots; remnants of brick	D		
0.10–0.75		NUR TP04 0.50			FILL Sandy Clay FILL; brown; soft; low plasticity; building material	D		
0.75–1.00		NUR TP04 1.00			Sandy CLAY; brown; soft; low plasticity			
1.00					Termination Depth at:1.00 m			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/06/2023 - 12/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		PAV TP01 0.10			Sandy CLAY; brown to dark brown; very soft; low plasticity	D		
0.30–0.60		PAV TP01 0.50			CLAY; grey with dark grey and tan mottles; stiff; low plasticity	M		
0.60–1.00		PAV TP01 1.00			Sandy SILT; grey with tan mottles; soft; high plasticity; about 40% medium sand	W		
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WWTP_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 13/06/2023 - 13/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.15		WWTP TP01 0.10			Clay TOPSOIL; brown; soft; high plasticity; minor roots	M		0 to -0.15
0.15–0.70		WWTP TP01 0.50			SILT with trace sand; grey to grey brown; firm; low plasticity	M		-0.15 to -0.7
0.70–1.00		WWTP TP01 1.00			Sandy SILT; grey to reddish brown; soft; high plasticity; about 30% coarse sand	W		-0.7 to -1
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WWTP_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 13/06/2023 - 13/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		WWTP TP02 0.10			Clay TOPSOIL; brown; soft; high plasticity	M		
0.20–0.50		WWTP TP02 0.50			SILT with trace sand; grey; soft; high plasticity	W		
0.50–1.00		WWTP TP02 1.00			Sandy SILT; grey; soft; high plasticity; about 40% medium to coarse sand	M		
1.00					Termination Depth at:1.00 m			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WWTP_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 13/06/2023 - 13/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0–0.25		WWTP TP03 0.10			Clay TOPSOIL; brown; soft; low plasticity; some roots	M		
0.25–0.55		WWTP TP03 0.50			SILT; grey; firm; high plasticity	M		
0.55–1.00		WWTP TP03 1.00			Silty SAND; grey; sand is fine grained; very soft; high plasticity; uniformly graded			
1.00					Termination Depth at:1.00 m			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 13/06/2023 - 13/06/2023
Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–1.00		WWTP TP04 0.10			Bouldery SAND; dark grey; coarse; not cohesive; gap graded; about 50% boulders; likely fill material; water level at 0.45m bgl	M		
0.45			∇					-0.45
		WWTP TP04 0.50						
		WWTP TP04 1.00						
1.00					Termination Depth at:1.00 m			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B3_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 29/03/2023 - 29/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		B3 TP01 0.1			Sandy SILT; brown	M		
0.3					SILT with sand; yellow brown	M		-0.3
0.4–0.5		B3 TP01 0.5						
1					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B3_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 29/03/2023 - 29/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		B3 TP03 0.1			Sandy SILT; brown	M		
0.3–1.0		B3 TP03 0.4			SILT with sand; yellow brown	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 28/03/2023 - 28/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.30		B7 TP03 0.1 (0.00–0.10)			Sandy silt TOPSOIL; brown	M		
0.30–1.00		B7 TP03 0.7 (0.60–0.70)			Sandy SILT; light brown	M		
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 28/03/2023 - 28/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0–0.2		B7 TP04 0.1			Sandy silt TOPSOIL; brown	M		
0.2–1.0		B7 TP04 0.5			SILT with sand and some cobbles; light brown	M		
1					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B8_HA01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 28/03/2023 - 28/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.2		B8 HA01 0.1 (0 – 0.1)			Sandy silt TOPSOIL; brown	M		
0.2 – 1.0		B8 HA01 0.4 (0.3 – 0.4)			Sandy SILT; light brown	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/03/2023 - 16/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.1		B16 TP04 0.1			Sandy silt TOPSOIL; brown	M		0 – -0.1
0.1 – 1.0		B16 TP04 0.8 (0.7 – 0.8)			Sandy SILT; light brown;	M	Bricks observed in one corner of the test pit at approximatley 0.1 - 0.2m	-0.1 – -1
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/03/2023 - 16/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20					Sandy silt TOPSOIL; brown	M	Plastic, and other anthropogenic items observed	-0.00 – -0.20
0.20–1.00		B16 TP05 0.3 (0.2–0.3)			Silty SAND; orange	M		-0.20 – -1.00
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B16_TP06

Client Land Information New Zealand	**Total Depth (m)** 0.50
Project LINZ - Former Tokanui Hospital	**Logged By** DJ
Project No. 12559090	**Checked By** CH
Site Tokanui DSI	
Location 149 Te Mawhai Rd, Tokanui	
Date Excavated 16/03/2023 - 16/03/2023	

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		B16 TP06 0.1			Sandy silt TOPSOIL; brown	M		
0.2–0.5		B16 TP06 0.5			Silty SAND; light brown			
0.5					Termination Depth at:0.50 m. Refusal at 0.5m due to structure encountered.			-0.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0		B16 TP07 0.1			Sandy Silt TOPSOIL; brown	M		
0.2					Sandy SILT; light brown	M	Copper pipe encountered at 0.2m. Drainage pipe encountered at 0.5m	-0.2
0.4		B16 TP07 0.5						-0.4
0.8		B16 TP07 0.9						-0.8
1					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B16_TP08

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		B16 TP08 0.1			Sandy silt TOPSOIL; brown	M		
0.2–1.0		B16 TP08 0.5			Sandy SILT; light brown	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/03/2023 - 16/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		B16 TP09 0.1			Sandy silt TOPSOIL; brown	M		
0.20–1.00		B16 TP09 0.5			Sandy SILT; light brown	M		
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		B59 TP01 0.1			Gravelly SILT with sand			
0.3–1.0		B59 TP01 0.6			CLAY; blue grey with brown mottles			
1					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B59_TP07

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		B59 TP07 0.1 (0.0–0.1)			Sandy SILT; dark brown; some gravel	M		0 to -0.2
0.2–1.0		B59 TP07 0.6 (0.5–0.6)			SILT with clay; brown	M		-0.2 to -1
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B63_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/03/2023 - 21/03/2023

Total Depth (m) 0.70
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		B63 TP03 0.1			ASPHALT			0 to -0.1
0.1–0.2					Sandy GRAVEL; grey		Subgrade	-0.1 to -0.2
0.2–0.5					Silty CLAY with sand; light brown	M		-0.2 to -0.5
0.5–0.7		B63 TP03 0.7 (0.6–0.7)			Silty CLAY; mottled brown-grey	M	Encountered pipe at 0.7m	-0.5 to -0.7
0.7					Termination Depth at:0.70 m. End of hole at 0.7m due to pipe encountered.			-0.7

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B63_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/03/2023 - 21/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1					ASPHALT			
0.1–0.2		B63 TP04 0.2			Sandy GRAVEL; yellow brown		Subgrade	-0.1 – -0.2
0.2–0.5					Silty CLAY with sand; light grey	M		-0.2 – -0.5
0.5–1.0		B63 TP04 0.7 (0.6–0.7)			Silty CLAY; mottled brown-grey	M		-0.5 – -1
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/03/2023 - 21/03/2023

Total Depth (m) 1.30
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.1		B66 TP01 0.1			ASPHALT			
0.1 – 0.3					SAND with gravels; yellow brown		Subgrade	-0.1 – -0.3
0.3 – 0.9		B66 TP01 0.9 (0.8 – 0.9)			CLAY; light brown with dark red mottling;	M		-0.3 – -0.9
0.9 – 1.3		B66 TP01 1.1 (1.0 – 1.1)			CLAY; brown; slight orange mottling	M		-0.9 – -1.3
1.3					Termination Depth at:1.30 m. Target depth reached.			-1.3

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B68_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1					ASPHALT			
0.1–0.2		B68 TP01 0.2			SAND with gravels; yellow brown		Subgrade	-0.1 – -0.2
0.2–0.9		B68 TP01 0.6 (0.5–0.6)			CLAY with silt; grey with light brown mottling	M		-0.2 – -0.9
0.9					Termination Depth at:0.90 m. Target depth reached.			-0.9

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B68_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 0.30
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 – 0.1					ASPHALT			-0.05 – -0.1
0.1 – 0.3		B68 TP02 0.2			SAND with gravels; yellow brown		Subgrade	-0.1 – -0.3
0.3					Termination Depth at:0.30 m. Refusal at 0.3m due to structure encountered.			-0.3

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B68_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 1.20
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.1					ASPHALT			0 – -0.1
0.1 – 0.3		B68 TP03 0.2 (0.1 – 0.2)			SAND with gravels; yellow brown		Subgrade	-0.1 – -0.3
0.3 – 1.2		B68 TP03 0.5 (0.4 – 0.5)			Clay with silt; grey with light brown mottling	M	Encountered cable at 0.4m	-0.3 – -1.2
1.2					Termination Depth at:1.20 m. Target depth reached.			-1.2

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B68_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		B68 TP04 0.1			ASPHALT			
0.1–0.2					SAND with gravels; yellow brown		Subgrade	-0.1 to -0.2
0.2–1.0		B68 TP04 0.5 (0.4–0.5)			CLAY with silt; grey with light brown mottling	M		-0.2 to -1
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 1.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		B68 TP06 0.1			ASPHALT			
0.1–0.3					SAND with gravels; yellow brown		Subgrade	-0.1
0.3–1.1		B68 TP06 0.5			SAND; brown	M		-0.3
1.1–1.6		B68 TP06 1.2			CLAY with silt; light brown with brown mottling	M	Encountered cable at 1.6m	-1.1
1.6					Termination Depth at:1.60 m. End of hole at 1.6m due to cable encountered.			-1.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 1.70
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0		B68 TP07 0.1			ASPHALT			
0.1		B68 TP07 0.2			SAND with gravels; yellow brown		Subgrade	-0.1
0.3					SAND; brown	M		-0.3
0.5		B68 TP07 0.6			SAND with gravels; black		Rag fragments observed	-0.5
0.6					CLAY with silt; grey with light brown mottling	M		-0.6
1					CLAY with silt; orange	M		-1
1.4		B68 TP07 1.5						-1.4
1.7					Termination Depth at:1.70 m. Target depth reached.			-1.7

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B68_TP08

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 1.70
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1					ASPHALT			
0.1		B68 TP08 0.2			SAND with gravel; yellow brown		Subgrade	-0.1
0.2					SAND; brown	M		-0.2
0.3					SAND with gravels; black		Rag fragments observed	-0.3
0.4		B68 TP08 0.5			CLAY with silt; light brown with brown mottling	M		-0.4
1					CLAY with silt; orange with brown mottling	M		-1
1.6		B68 TP08 1.7						-1.6
1.7					Termination Depth at:1.70 m. Target depth reached.			-1.7

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 14/06/2023 - 14/06/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		B71 TP01 0.10			Sandy clay TOPSOIL; brown; soft; low plasticity	M		
0.20–0.75		B71 TP01 0.50			CLAY; mottled brown and grey with some black mottles; firm; high plasticity	M		
0.75–1.00		B71 TP01 1.00			Sandy CLAY with some fine gravel; mottled black and brown; soft; high plasticity;	W		
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 2.20
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0		B74 TP02 0.1			Sandy clay TOPSOIL; brown	M		
0.4		B74 TP02 0.5						-0.4
0.5					Silty CLAY; light brown with orange mottling	M		-0.5
1		B74 TP02 1.1						-1
1.8		B74 TP02 1.9						-1.8
1.9					Silty CLAY; grey; growndwater intrusion at 2.1m	SM		-1.9
2		B74 TP02 2.1						-2
2.2					Termination Depth at:2.20 m. Target depth reached.			-2.2

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 2.30
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.3		B74 TP03 0.1			Sandy clay TOPSOIL; brown	M		0 – -0.3
0.3 – 1.2		B74 TP03 0.6			Silty CLAY; light brown with orange mottling	M		-0.3 – -1.2
1.2 – 2.3		B74 TP03 2.2			Silty CLAY; grey; growndwater intrusion at 2.1m	SM		-1.2 – -2.3
2.3					Termination Depth at:2.30 m. Target depth reached.			-2.3

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit B74_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 21/03/2023 - 21/03/2023

Total Depth (m) 2.30
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.1		B74 TP04 0.1			ASPHALT			0 – -0.1
0.1 – 0.2					Sandy GRAVEL	M	Subgrade	-0.1 – -0.2
0.2 – 1.7		B74 TP04 0.7 (0.6 – 0.7)			Silty CLAY; light brown with occasional orange mottling	M		-0.2 – -1.7
1.7 – 2.3		B74 TP04 2.1 (2.0 – 2.1)			Silty CLAY; grey with orange mottling	M		-1.7 – -2.3
2.3					Termination Depth at:2.30 m. Target depth reached.			-2.3

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/03/2023 - 20/03/2023

Total Depth (m) 2.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		B74 TP06 0.1			sandy clay TOPSOIL; brown	M		-0.1, -0.2
0.2–0.5		B74 TP06 0.5			Sandy CLAY; brown	M		-0.3, -0.4, -0.5
0.5–1.4					Silty CLAY; brown with infrequent orange mottling	M		-0.6 … -1.4
1.4–2.5		B74 TP06 1.5; B74 TP06 2.5			Silty CLAY; grey			-1.5 … -2.5
2.5					Termination Depth at:2.50 m. Target depth reached.			

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/03/2023 - 20/03/2023

Total Depth (m) 1.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0		B74 TP07 0.1			Sandy clay TOPSOIL; brown	M		
0.1					Sandy CLAY; brown	M	Cable encountered at approximatley 0.9m	-0.1
0.2								-0.2
0.3								-0.3
0.4								-0.4
0.5								-0.5
0.6		B74 TP07 0.7						-0.6
0.7								-0.7
0.8								-0.8
0.9								-0.9
1								-1
1.1								-1.1
1.2								-1.2
1.3								-1.3
1.4		B74 TP07 1.5						-1.4
1.5								-1.5
1.6					Termination Depth at:1.60 m. Target depth reached.			-1.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit CHP_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/06/2023 - 16/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00–0.20		CHP TP01 0.2 (0.1–0.2)			Silty CLAY; dark brown	M		0 to -0.2
0.20–1.00		CHP TP01 0.5 (0.4–0.5)			Silty SAND; yellow	M		-0.2 to -1
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit CHP_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		CHP TP02 0.1 (0.0–0.1)			Silty CLAY; dark brown	M		
0.2–0.9		CHP TP02 0.5 (0.4–0.5)			Silty SAND; yellow	M		
0.9					Termination Depth at:0.90 m. Target depth reached.			-0.9

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 23/03/2023 - 23/03/2023

Total Depth (m) 0.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		CHP TP03 0.2			Silty CLAY; dark brown	M		
0.2–0.6					Silty SAND; yellow	M		
0.6					Termination Depth at:0.60 m. Refusal at 0.6m.			-0.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/03/2023 - 16/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		CHP_TP04 0.2 (0.1–0.2)			Silty CLAY; dark brown	M		
0.2–1.0		CHP_TP04 0.6 (0.5–0.6)			Silty SAND; yellow	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DIP_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 1.70
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 – 0.3		DIP TP01 0.2 (0.1–0.2)			Silty CLAY; dark brown	M		
0.3 – 1.1		DIP TP01 0.5 (0.4–0.5); DIP TP01 1.1 (1.0–1.1)			CLAY with sand; reddish brown	M		
1.1 – 1.3					SAND; light brown	M		
1.3 – 1.5					CLAY with sand; reddish brown			
1.5 – 1.7					SAND; light brown	M		
1.7					Termination Depth at:1.70 m. Target depth reached.			-1.7

Depth scale: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9

Elevation scale: -0.1, -0.2, -0.3, -0.4, -0.5, -0.6, -0.7, -0.8, -0.9, -1, -1.1, -1.2, -1.3, -1.4, -1.5, -1.6, -1.7, -1.8, -1.9

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DIP_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 1.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		DIP TP02 0.2 (0.1–0.2)			Silty CLAY; dark brown	M		
0.2–1.1		DIP TP02 0.5 (0.4–0.5)			CLAY with sand; reddish brown			
1.1–1.5		DIP TP02 1.2 (1.1–1.2)			SAND; light brown	M		
1.5					Termination Depth at:1.50 m. Target depth reached.			-1.5

Depth scale: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5
Elevation scale: -0.1, -0.2, -0.3, -0.4, -0.5, -0.6, -0.7, -0.8, -0.9, -1, -1.1, -1.2, -1.3, -1.4, -1.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit DIP_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 1.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		DIP TP03 0.2 (0.1–0.2)			Silty CLAY; dark brown	M		
0.3–1.1		DIP TP03 0.7 (0.6–0.7)			CLAY with sand; reddish brown			
1.1–1.6		DIP TP03 1.2 (1.1–1.2)			SAND; reddish brown to grey			
1.6					Termination Depth at:1.60 m. Target depth reached.			-1.6

Depth scale: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6
Elevation scale: -0.1, -0.2, -0.3, -0.4, -0.5, -0.6, -0.7, -0.8, -0.9, -1, -1.1, -1.2, -1.3, -1.4, -1.5, -1.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 1.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		HT TP25 0.2 (0.1–0.2)			Silty CLAY with sand; dark brown	M	Top of glass bottle observed in soil profile	-0.1 to -0.3
0.3–1.1		HT TP25 0.5 (0.4–0.5)			Sandy SILT with clay; orange brown	M		-0.3 to -1.1
1.1–1.6		HT TP25 1.2 (1.1–1.2)			Silty SAND; light brown with orange mottling	M		-1.1 to -1.6
1.6					Termination Depth at:1.60 m. Target depth reached.			-1.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 1.10
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		HT TP27 0.1			Silty clay with sand TOPSOIL; dark brown	M		
0.1–0.4		HT TP27 0.4			Sandy SILT; black	M	Small chips and paintflakes observed, metal pipe and teaspoon	
0.4–1.1		HT TP27 0.5 HT TP27 0.7			Sandy SILT with clay; brown	M		
1.1					Termination Depth at:1.10 m. Target depth reached.			-1.1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit HT_TP28

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 17/03/2023 - 17/03/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		HT TP28 0.1			Silty clay TOPSOIL with sand; dark brown	M	Top of glass bottle observed in soil profile	-0.05, -0.1
0.1–0.3					Sandy SILT; light brown	M	Brick observed in material	-0.15, -0.2, -0.25, -0.3
0.3–0.7		HT TP28 0.5			Silty CLAY with sand; dark brown	M		-0.35 … -0.7
0.7–0.9					Sandy SILT with clay; orange brown	M		-0.75 … -0.9
0.9					Termination Depth at:0.90 m. Target depth reached.			

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25
Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit SB2_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/03/2023 - 16/03/2023

Total Depth (m) 0.70
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0–0.1					ASPHALT			-0.05, -0.1
0.1–0.3		SB2 TP02 0.2			Sandy GRAVEL; brown	D	Roading subgrade	-0.15 to -0.3
0.3–0.7		SB2 TP02 0.7			Silty SAND with gravel; brown	M	Concrete foundation observed at approximately 0.4m, Encountered wooden structure over unidentified cable at 0.7m.	-0.35 to -0.7
0.7					Termination Depth at:0.70 m. Refusal at 0.7m due to wooden structure encountered.			-0.7

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit SB2_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 16/03/2023 - 16/03/2023

Total Depth (m) 0.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 - 0.1					ASPHALT			0 - -0.1
0.1 - 0.4		SB2 TP03 0.2			Sandy GRAVEL; brown	D	Roading subgrade	-0.1 - -0.4
0.4 - 0.5		SB2 TP03 0.5			Silty SAND with gravel; brown	M	Asbestos sheeting encountered at 0.4 - 0.5m	-0.4 - -0.5
0.5					Termination Depth at:0.50 m. End of hole at 0.5m due to asbestos sheeting encountered.			-0.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/03/2023 - 20/03/2023

Total Depth (m) 1.10
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.3		SB4 TP01 0.1			Silty sand TOPSOIL; black	M		0 – -0.3
0.3 – 1.1		SB4 TP01 0.5			Silty CLAY; light brown with orange mottling	M		-0.3 – -1.1
1.1					Termination Depth at:1.10 m. Target depth reached.			-1.1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/03/2023 - 20/03/2023

Total Depth (m) 1.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		SB4 TP02 0.2 (0.1–0.2)			Silty sand TOPSOIL; black	M		0 to -0.3
0.3–1.5		SB4 TP02 0.5 (0.4–0.5)			Silty CLAY; light brown	M		-0.3 to -1.5
1.5					Termination Depth at:1.50 m. Target depth reached.			-1.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations
D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations
Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense
Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 20/03/2023 - 20/03/2023

Total Depth (m) 0.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.3		SB4 TP03 0.1			Silty sand TOPSOIL; black	M		
0.3–0.6		SB4 TP03 0.4			Silty CLAY; light brown with orange mottling	M	White plastic pipe with orange tape encountered	-0.3
0.6					Termination Depth at:0.60 m. End of hole at 0.6m due to service encountered.			-0.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 28/03/2023 - 28/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.2		SCH TP01 0.1			Sandy silt TOPSOIL; brown	M		
0.2 – 1.0		SCH TP01 0.3			SILT; orange brown	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit SCH_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 28/03/2023 - 28/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 – 0.3		SCH TP02 0.1 (0.0–0.1); SCH TP02 0.3 (0.2–0.3)			Sandy silt TOPSOIL; brown	M		
0.3 – 0.8					SILT; orange brown	M		
0.8 – 1.0					Sandy SILT; light brown	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit SCH_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 28/03/2023 - 28/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0–0.2		SCH TP03 0.1			Sandy silt TOPSOIL; brown	M		
0.2–0.5					SILT; orange brown	M		
0.5–1.0		SCH TP03 0.7			Sandy SILT; light brown	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit SCH_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 28/03/2023 - 28/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		SCH TP04 0.1			Sandy silt TOPSOIL; brown	M		
0.2–0.4					SILT; pale brown	M		
0.4–1.0		SCH TP04 0.6			silt; brown orange	M		
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 29/03/2023 - 29/03/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		TRF TP01 0.1			Silty CLAY; dark brown	M		
0.2–0.9		TRF TP01 0.5			Sandy SILT; light brown	M		
0.9					Termination Depth at:0.90 m. Target depth reached.			-0.9

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit TRF_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 29/03/2023 - 29/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.00 – 0.20		TRF TP02 0.1			Silty CLAY; dark brown	M		
0.20 – 1.00		TRF TP02 0.5			Sandy SILT; light brown	M		
1.00					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand	**Total Depth (m)** 1.00
Project LINZ - Former Tokanui Hospital	**Logged By** DJ
Project No. 12559090	**Checked By** CH
Site Tokanui DSI	
Location 149 Te Mawhai Rd, Tokanui	
Date Excavated 29/03/2023 - 29/03/2023	

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0 – 0.2		TRF TP03 0.1 (0 – 0.1)			Silty CLAY; dark brown	M		0 – -0.2
0.2 – 1.0		TRF TP03 0.3 (0.2 – 0.3)			Sandy SILT; light brown	M		-0.2 – -1
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0–0.1		WD2 TP01 0.1			Sandy silt TOPSOIL; brown	M	Fragments of glass and paint flakes present in topsoil	0 to -0.1
0.1–0.9		WD 2 TP01 0.3; WD2 TP01 0.5			Silty SAND; light brown	M		-0.1 to -0.9
0.9					Termination Depth at:0.90 m. Target depth reached.			-0.9

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WD2_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.4		WD2 TP02 0.1; WD2 TP02 0.4			Sandy silt TOPSOIL; brown	M	Fragments of glass and paint flakes present in topsoil	
0.4–0.9					Silty SAND; light brown with some organic mottling	M		
0.9					Termination Depth at:0.90 m. Target depth reached.			-0.9

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WD2_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 1.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		WD2 TP03 0.1			Sandy silt TOPSOIL; brown	M	Paint flakes present in topsoil	
0.1–0.4		WD2 TP03 0.4 (0.3–0.4)			SAND; light brown	M		-0.1 to -0.4
0.4–1.1					Silty SAND; orange	M		-0.4 to -1.1
1.1–1.6		WD2 TP03 1.2 (1.1–1.2)			SAND; light brown; thin brown layer at approximately 1.5m			-1.1 to -1.6
1.6					Termination Depth at:1.60 m. Target depth reached.			-1.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 1.50
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 – 0.4		WD2 TP04 0.1			Silty sand TOPSOIL; brown	M		
0.4 – 1.1		WD2 TP04 0.5; WD2 TP04 1.1			Silty SAND; light brown	M	Paint flakes observed at 0.4m metal pipe and bricks observed at 0.5 - 0.6m	-0.4 – -1.1
1.1 – 1.5		WD2 TP04 1.2			Silty SAND; grey with orange mottling	SM		-1.1 – -1.5
1.5					Termination Depth at:1.50 m. Target depth reached.			-1.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WD2_TP06

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 1.00
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		WD2 TP06 0.1			Sandy silt TOPSOIL; brown	M		
0.2–0.3		WD2 TP06 0.3			Sandy SILT; brown	M		
0.3–1.0					Sitly SAND; light brown	M		
1.0					Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WD2_TP07

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 1.10
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0 – 0.2		WD2 TP07 0.1 (0.0 – 0.1)			Sandy silt TOPSOIL; brown	M		
0.2 – 0.3					SAND with silt; light brown	M		
0.3 – 1.1		WD2 TP07 0.5 (0.4 – 0.5)			SAND with silt; orange	M	Concrete observed at approximately 0.4 - 0.5m	
1.1					Termination Depth at:1.10 m. Target depth reached.			

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 0.90
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.2		WD2 TP08 0.2 (0.1–0.2)			Sandy silt TOPSOIL; brown	M		
0.2–0.9		WD2 TP08 0.5 (0.4–0.5)			SAND with silt; orange	M	Concrete observed at approximately 0.4 - 0.5m	
0.9					Termination Depth at:0.90 m. Target depth reached.			-0.9

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1, 1.05, 1.1, 1.15, 1.2, 1.25

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95, -1, -1.05, -1.1, -1.15, -1.2, -1.25

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 22/03/2023 - 22/03/2023

Total Depth (m) 1.60
Logged By DJ
Checked By CH

Depth (m)	PID (ppm)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components, Contaminant Indicators.	Moisture	COMMENTS	Elevation (m)
0.0–0.1		WD2 TP09 0.1			Sandy silt TOPSOIL; brown	M		
0.1–0.2					Sand with silt; light brown	M		-0.1
0.2–0.5					SAND with silt; orange	M	Concrete observed at approximately 0.4 - 0.5m	-0.2
0.5–1.6		WD2 TP09 0.7 (0.6–0.7); WD2 TP09 1.5 (1.4–1.5)			Silty SAND; light brown	M		-0.5
1.6					Termination Depth at:1.60 m. Target depth reached.			-1.6

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit NW_Fill_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 1.00
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0				Sandy SILT, brown, moist (topsoil)	M		0
0.1	NW FILL TP01 0.1						-0.1
0.2				SILT with sand, yellow brown, moist.	M		-0.2
0.5	NW FILL TP01 0.5						-0.5
0.6				SILT with some sand, brown, moist	M		-0.6
1				Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 0.90
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0.0–0.2	NW FILL TP02 0.1			Sandy SILT, brown, moist (topsoil)	M		
0.2–0.9				SILT with sand, yellow brown, moist.	M		
0.9				Termination Depth at:0.90 m. Target depth reached.			-0.9

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit NW_Fill_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 1.00
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0				Sandy SILT, brown, moist (topsoil)	M		0
0.1	NW FILL TP03 0.1						-0.1
0.2				SILT with sand, yellow brown, moist.	M		-0.2
0.5	NW FILL TP03 0.5						-0.5
0.6				SILT with some sand, brown, moist	M		-0.6
1				Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit NW_Fill_TP04

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 1.10
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0 – 0.1	NW FILL TP04 0.1			Sandy SILT, brown, moist (topsoil)	M		0 – -0.1
0.1 – 0.5				SILT with sand, yellow brown, moist.	M		-0.1 – -0.5
0.5 – 0.9				SILT with some sand, brown, moist	M		-0.5 – -0.9
0.9 – 1.1				CLAY; blue grey with brown mottling			-0.9 – -1.1
1.1				Termination Depth at:1.10 m. Target depth reached.			-1.1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 0.50
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0				Sandy SILT, brown, moist (topsoil)	M		0
0.05							-0.05
0.1	SB08 HA01 0.1			SILT with sand, yellow brown, moist.	M		-0.1
0.15							-0.15
0.2							-0.2
0.25							-0.25
0.3							-0.3
0.35							-0.35
0.4							-0.4
0.45							-0.45
0.5	SB08 HA01 0.5			Termination Depth at:0.50 m. Target depth reached.			-0.5
0.55							-0.55

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit SB8_HA02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 0.50
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0				Sandy SILT, brown, moist (topsoil)	M		0
0.1	SB08 HA02 0.1			SILT with sand, yellow brown, moist.	M		-0.1
0.5	SB08 HA02 0.5			Termination Depth at:0.50 m. Target depth reached.			-0.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 0.50
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0 – 0.1	SB08 HA03 0.1			Sandy SILT, brown, moist (topsoil)	M		0 – -0.1
0.1 – 0.5	SB08 HA03 0.5			SILT with sand, yellow brown, moist.	M		-0.1 – -0.5
0.5				Termination Depth at:0.50 m. Target depth reached.			-0.5

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 0.50
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0				Sandy SILT, brown, moist (topsoil)	M		0
0.05							-0.05
0.1	SB08 HA04 0.1			SILT with sand, yellow brown, moist.	M		-0.1
0.15							-0.15
0.2							-0.2
0.25							-0.25
0.3							-0.3
0.35							-0.35
0.4							-0.4
0.45							-0.45
0.5	SB08 HA04 0.5			Termination Depth at:0.50 m. Target depth reached.			-0.5
0.55							-0.55

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 0.90
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0.0				Concrete slab			
0.2	SB08 TP01 0.2			SILT with sand, yellow brown, moist.	M		-0.2
0.5	SB08 TP01 0.5						-0.5
0.9				Termination Depth at:0.90 m. Target depth reached.			-0.9

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95
Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WDF_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 0.90
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0.00–0.10	WDF TP02 0.1			Sandy SILT, brown, moist (topsoil)	M		
0.10–0.90				SILT with sand, yellow brown, moist	M		
0.90				Termination Depth at:0.90 m. Target depth reached.			-0.9

Depth scale (m): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95

Elevation scale (m): -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand	**Total Depth (m)** 1.10
Project LINZ - Former Tokanui Hospital	**Logged By** DJ
Project No. 12559090	**Checked By**
Site Tokanui DSI	
Location 149 Te Mawhai Rd, Tokanui	
Date Excavated 11/09/2023 - 11/09/2023	

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0 – 0.2	WDF TP03 0.1			Sandy SILT, brown, moist (topsoil)	M		0 – -0.2
0.2 – 1.1	WDF TP03 0.5			SILT with sand, yellow brown, moist.	M	Metal pipe, brick, concrete, coal observed in soil profile.	-0.2 – -1.1
1.1				Termination Depth at:1.10 m. Target depth reached.			-1.1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 1.10
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0 – 0.1	WDG TP01 0.1			Sandy SILT, brown, moist (topsoil)	M		0 – -0.1
0.1 – 0.7				SILT with sand, yellow brown, moist.	M	Some brick, concrete observed in soil	-0.1 – -0.7
0.7 – 1.1				SILT with some sand, brown, moist	M		-0.7 – -1.1
1.1				Termination Depth at:1.10 m. Target depth reached.			-1.1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WDG_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 1.00
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0 – 0.1	WDG TP02 0.1			Sandy SILT, brown, moist (topsoil)	M		0 – -0.1
0.1 – 0.5				SILT with sand, yellow brown, moist.	M	Some brick, concrete and coal observed in soil	-0.1 – -0.5
0.5 – 1.0				SILT with some sand, brown, moist	M		-0.5 – -1
1.0				Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WDG_TP03

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 11/09/2023 - 11/09/2023

Total Depth (m) 0.90
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0.0–0.1	WDG TP03 0.1			Sandy SILT, brown, moist (topsoil)	M		
0.1–0.9	WDG TP03 0.5			SILT with sand, brown, moist.	M		
0.9				Termination Depth at:0.90 m. Target depth reached.			-0.9

Depth scale: 0.05, 0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95

Elevation scale: -0.05, -0.1, -0.15, -0.2, -0.25, -0.3, -0.35, -0.4, -0.45, -0.5, -0.55, -0.6, -0.65, -0.7, -0.75, -0.8, -0.85, -0.9, -0.95

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WDH_TP01

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 1.00
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0 – 0.1	WDH TP01 0.1			Sandy SILT, brown, moist (topsoil)	M		0 – -0.1
0.1 – 0.6				SILT with sand, yellow brown, moist.	M	Some brick, concrete observed in soil	-0.1 – -0.6
0.6 – 1.0				SILT with some sand, brown, moist	M		-0.6 – -1
1.0				Termination Depth at:1.00 m. Target depth reached.			-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Test Pit WDH_TP02

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 0.90
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0.0				Sandy SILT, brown, moist (topsoil)	M		
0.1	WDH TP02 0.1						-0.1
0.2				SILT with sand, yellow brown, moist.	M	Some brick, concrete observed in soil	-0.2
0.5				SILT with some sand, brown, moist	M		-0.5
0.9				Termination Depth at:0.90 m. Target depth reached.			-0.9

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	**Moisture Abbreviations**	**Consistency Abbreviations**	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

TEST PIT LOG

ENVIRONMENTAL-TEST PIT

Client Land Information New Zealand
Project LINZ - Former Tokanui Hospital
Project No. 12559090
Site Tokanui DSI
Location 149 Te Mawhai Rd, Tokanui
Date Excavated 12/09/2023 - 12/09/2023

Total Depth (m) 1.00
Logged By DJ
Checked By

Depth (m)	Sample ID	Water	Graphic Log	DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	COMMENTS	Elevation (m)
0–0.1	WDH TP03 0.1			Sandy SILT, brown, moist (topsoil)	M		
0.1–0.9	WDH TP03 0.5			SILT with some sand, brown, moist	M		
1.00				Termination Depth at:1.00 m. Target depth reached.			

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations

AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler

Moisture Abbreviations

D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated

Consistency Abbreviations

Granular Soils VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense, VD - Very Dense

Cohesive Soils VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

Appendix E

Photolog

Photo 1 – SB2_TP 03: Asbestos board	

Photo 2 – WD2_TP 04: Metal pipe	

Photo 3 – WD2_TP 03: Brick fragments	

Photo 4 – HT_TP 25: Brick fragments	

Photo 5 – HT_COMP E2: Asphalt	

Photo 6 – HT_COMP C1: tile and concrete fragment.	

Photo 7 – NUR_TP04 Concrete slab and brick fragments	

Photo 8 – DS02_TP 03: Brick and pipe fragments through surface of ground.	

Photo 9 – B26_TP 02: Wood and glass in excavated material.	

Plate X1: Looking southeast from towards northwest corner of building 1 (B1).

Plate X2: Looking southeast towards northeast corner of B2.

Plate X3: Representative soil profile at B2.

Plate X4: Looking northwest towards southeast corner of B3.

Plate X5: Looking northwest towards southeast corner of B4.

Plate X6: Looking east towards western sides of B5 and B6.

Plate X7: Looking east towards western sides of B5 and B6.

Plate X8: Representative soil profile at B8.

Plate X9: Looking north towards southern side of B9.

Plate X10: Looking southeast towards northwest corner of B10.

Plate X11: Looking north towards southwest corner of B11.

Plate X12: Representative soil profile at B11.

Plate X13: Looking north towards southwest corner of B12.

Plate X14: Looking east towards western wall of B15.

Plate X15: Representative soil profile at B15.

Plate X16: Looking southwest towards B17.

Plate X17: Looking northwest towards B19.

Plate X18: Looking northwest towards B20.

Plate X19: Looking northwest towards southeast corner of B21 and B22.

Plate X20: Representative soil profile at B22.

Plate X21: Looking southwest from northwest corner of B23.

Plate X22: Looking northeast towards B25.

Plate X23: Looking northwest from southeast corner of B26.

Plate X24: Looking southwest from northeast corner of B27.

Plate X25: Looking southwest towards B28.

Plate X26: Looking northeast towards southeast corner of B30 and B31.

Plate X27: Representative soil profile at B30.

Plate X28: Looking north towards B35.

Plate X29: Looking southeast towards B36. B36-B39 in background.

Plate X30: Representative soil profile at B38.

Plate X31: Looking north towards B41 and B42.

Plate X32: Representative soil profile at B44.

Plate X33: Looking north towards B45 and B46.

Plate X34: Looking east towards B47 from B42.

Plate X35: Looking southwest towards southeast corner of B48.

Plate X36: Representative soil profile at B50.

Plate X37: Looking north towards B50.

Plate X38: Looking south towards B51.

Plate X39: Looking east towards B52.

Plate X40: Looking south from B53 towards B54 (water tower).

Plate X41: Looking northwest towards B55.

Plate X42: Representative soil profile at B55.

Plate X43: Looking west towards eastern wall of B55.

Plate X44: Looking south towards southeast corner of B59.

Plate X45: Looking north towards southeast corner of B60-B62.

Plate X46: Looking north towards B63.

Plate X47: Representative soil profile at B65.

Plate X48: Looking southwest towards B66.

Plate X49: Looking north towards B67 and B68.

Plate X50: Looking north towards B70.

Plate X50: Looking north towards B75.

Plate X50: Looking north towards location of former Nurse's Home.

Plate X51: Looking northeast towards location of former Ward F.

Plate X52: Representative soil profile at location of former Ward H.

Appendix X: Site photographs

Plate X1: Looking towards northwest corner of building B2

Plate X2: Looking towards southwest corner of building B11

Plate X3: Looking towards southwest corner of building B59

Appendix F

Results tables

														Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg									
						Boron	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Beryllium	Boron
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL																							
Location Code	**Date**	**Field ID**	**Depth**	**Lab Report Number**	**Sample Type**																		
	28 Mar 2023	B7 TP03 0.1		3219033	Normal	<20	0.19	8	185	80	0.10	6	116	-	-	-	-	-	-	-	-	0.9	-
	28 Mar 2023	B7 TP04 0.1		3219033	Normal	<20	0.16	7	20	51	<0.10	5	130	-	-	-	-	-	-	-	-	0.7	-
	28 Mar 2023	B8 HA01 0.1		3219033	Normal	<20	0.92	12	130	750	1.17	9	440	-	-	-	-	-	-	-	-	0.6	-
	28 Mar 2023	SCH TP01 0.1		3219033	Normal	<20	<0.10	11	33	22	0.16	6	36	-	-	-	-	-	-	-	-	1.0	-
	28 Mar 2023	SCH TP01 0.3		3219033	Normal	<20	<0.10	12	56	21	0.35	7	36	-	-	-	-	-	-	-	-	0.9	-
	28 Mar 2023	SCH TP02 0.1		3219033	Normal	<20	0.19	11	39	75	0.19	6	100	-	-	-	-	-	-	-	-	1.0	-
	28 Mar 2023	SCH TP03 0.1		3219033	Normal	<20	0.24	10	30	43	0.17	6	75	-	-	-	-	-	-	-	-	1.2	-
	28 Mar 2023	SCH TP03 0.7		3219033	Normal	<20	0.13	12	29	18.4	0.18	6	45	-	-	-	-	-	-	-	-	1.3	-
	28 Mar 2023	SCH TP04 0.1		3219033	Normal	<20	0.18	10	32	56	0.17	6	97	-	-	-	-	-	-	-	-	0.9	-
	29 Mar 2023	TRF TP01 0.1		3221506	Normal	<20	0.12	6	9	18.2	0.13	3	43	-	-	-	-	-	-	-	-	0.7	-
	29 Mar 2023	TRF TP01 0.5		3221506	Normal	<20	<0.10	7	14	14.3	<0.10	4	35	-	-	-	-	-	-	-	-	1.1	-
	29 Mar 2023	TRF TP02 0.1		3221506	Normal	<20	0.16	7	10	21	<0.10	3	78	-	-	-	-	-	-	-	-	0.9	-
	29 Mar 2023	TRF TP03 0.1		3221506	Normal	<20	0.21	7	12	18.5	<0.10	3	56	-	-	-	-	-	-	-	-	1.0	-
	29 Mar 2023	TRF TP03 0.5		3221506	Normal	<20	<0.10	6	9	15.9	<0.10	3	34	-	-	-	-	-	-	-	-	0.8	-
	08 Jun 2023	DUP A1		3299078	Field_D	<20	<0.10	9	13	20	<0.10	4	32	-	-	-	-	-	-	-	-	0.5	-
	12 Jun 2023	B59 TP02 0.1	0 - 0.1	3299078	Normal	<20	<0.10	26	16	12.0	<0.10	12	60	-	-	-	-	-	-	-	-	0.7	-
	12 Jun 2023	B59 TP02 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	28	16	12.9	<0.10	15	61	-	-	-	-	-	-	-	-	0.7	-
	12 Jun 2023	B59 TP03 0.1	0 - 0.1	3299078	Normal	<20	0.12	30	13	13.1	<0.10	15	137	-	-	-	-	-	-	-	-	0.5	-
	12 Jun 2023	B74 HA02 0.1	0 - 0.1	3299078	Normal	<20	<0.10	12	22	23	<0.10	9	73	-	-	-	-	-	-	-	-	0.8	-
	12 Jun 2023	B74 HA02 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	14	26	20	0.12	7	52	-	-	-	-	-	-	-	-	0.9	-
	12 Jun 2023	COMP A 0.1	0 - 0.1	3299078	Normal	<20	0.40	9	42	31	0.13	4	117	-	-	-	-	-	-	-	-	0.9	-
	12 Jun 2023	COMP A 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	8	13	21	<0.10	4	42	-	-	-	-	-	-	-	-	0.7	-
	12 Jun 2023	COMP B 0.1	0 - 0.1	3299078	Normal	25	0.36	9	35	27	0.17	7	126	-	-	-	-	-	-	-	-	0.9	-
	12 Jun 2023	COMP B 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	8	14	18.4	<0.10	4	36	-	-	-	-	-	-	-	-	0.6	-
	12 Jun 2023	COMP C 0.1	0 - 0.1	3299078	Normal	340	0.25	10	33	24	0.33	6	82	-	-	-	-	-	-	-	-	1.2	-
	12 Jun 2023	COMP C 0.5	0.4 - 0.5	3299078	Normal	41	<0.10	8	22	19.4	<0.10	5	44	-	-	-	-	-	-	-	-	0.8	-
	12 Jun 2023	COMP D 0.1	0 - 0.1	3299078	Normal	<20	0.51	9	50	33	0.18	5	140	-	-	-	-	-	-	-	-	1.2	-
	12 Jun 2023	COMP D 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	13	21	<0.10	3	38	-	-	-	-	-	-	-	-	0.8	-
	12 Jun 2023	COMP E 0.1	0 - 0.1	3299078	Normal	70	0.32	10	36	83	0.12	8	97	-	-	-	-	-	-	-	-	1.1	-
	12 Jun 2023	COMP E 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	8	11	17.1	<0.10	4	33	-	-	-	-	-	-	-	-	0.7	-
	12 Jun 2023	COMP F 0.1	0 - 0.1	3299078	Normal	<20	0.29	9	34	74	0.18	5	118	-	-	-	-	-	-	-	-	0.9	-
	12 Jun 2023	COMP F 0.5	0.4 - 0.5	3299078	Normal	<20	0.16	9	24	33	0.13	5	87	-	-	-	-	-	-	-	-	1.0	-
	12 Jun 2023	COMP G 0.1	0 - 0.1	3299078	Normal	23	0.47	11	64	56	0.51	10	157	-	-	-	-	-	-	-	-	1.5	-
	12 Jun 2023	COMP G 0.5	0.4 - 0.5	3299078	Normal	<20	0.23	9	28	23	0.15	6	70	-	-	-	-	-	-	-	-	1.2	-
	12 Jun 2023	COMP H 0.1	0 - 0.1	3299078	Normal	360	0.36	11	42	57	0.30	19	123	-	-	-	-	-	-	-	-	1.4	-
	12 Jun 2023	COMP H 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	16	23	<0.10	4	35	-	-	-	-	-	-	-	-	0.9	-
	12 Jun 2023	Dup E3		3299078	Field_D	<20	<0.10	10	22	21	<0.10	6	49	-	-	-	-	-	-	-	-	0.6	-
	12 Jun 2023	Dup E4		3299078	Field_D	<20	<0.10	23	14	12.6	<0.10	13	220	-	-	-	-	-	-	-	-	0.5	-
	12 Jun 2023	HSP SED 01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	5	0.32	11	47	143	<0.10	9	185	1.3	<20
	13 Jun 2023	WWTP DIS-SED 0.10	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	4	<0.10	8	18	15.1	<0.10	5	56	0.6	<20
	13 Jun 2023	WWTP SEEPAGE-SED 0.10	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	5	<0.10	8	21	17.7	0.31	4	47	1.2	<20
	14 Jun 2023	B66 HA01		3299078	Normal	2,700	1.93	47	220	1,470	0.77	140	1,910	-	-	-	-	-	-	-	-	4.5	-
	14 Jun 2023	B66 HA02		3299078	Normal	360	2.6	31	154	780	<0.3	38	1,190	-	-	-	-	-	-	-	-	0.9	-
	14 Jun 2023	DIP HA01 0.10	0 - 0.1	3299078	Normal	210	0.43	12	50	88	0.85	25	220	-	-	-	-	-	-	-	-	1.5	-
	14 Jun 2023	DIP HA02 0.10	0 - 0.1	3299078	Normal	300	0.50	10	75	104	0.29	41	164	-	-	-	-	-	-	-	-	1.6	-
	14 Jun 2023	DIP HA03 0.10	0 - 0.1	3299078	Normal	<20	0.35	15	72	85	0.28	7	160	-	-	-	-	-	-	-	-	0.9	-
	19 Jun 2023	B74 HA01 0.1	0 - 0.1	3299078	Normal	<20	<0.10	10	21	22	<0.10	6	52	-	-	-	-	-	-	-	-	0.6	-
	19 Jun 2023	B74 HA01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	8	17	17.9	<0.10	5	41	-	-	-	-	-	-	-	-	0.9	-
	23 Jun 2023	HSP SED 01 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	5	0.12	10	27	43	<0.10	6	90	0.9	<20
	23 Jun 2023	HSP SED 01 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	5	0.16	9	27	55	<0.10	6	98	1.0	<20
	23 Jun 2023	HSP SED 02 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	6	0.45	8	42	32	<0.10	5	160	1.2	<20
	23 Jun 2023	HSP SED 02 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	5	0.23	12	41	68	0.10	7	141	1.0	40
	23 Jun 2023	HSP SED 03 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	7	0.24	10	27	96	0.10	6	117	0.9	<20
	23 Jun 2023	HSP SED 03 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	6	0.25	9	27	33	<0.10	5	125	0.9	<20
	23 Jun 2023	HSP SED 04 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	6	0.44	9	67	63	<0.10	6	260	1.0	<20
	23 Jun 2023	HSP SED 04 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	5	0.42	9	54	42	<0.10	7	250	1.0	<20
	23 Jun 2023	HSP SED 05 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	6	<0.10	7	15	13.0	<0.10	4	47	1.3	<20
	23 Jun 2023	HSP SED 05 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	2	<0.10	7	17	10.7	<0.10	5	51	1.0	<20
	23 Jun 2023	STR SED 01 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	5	0.12	9	16	30	<0.10	4	88	1.0	<20
	23 Jun 2023	STR SED 01 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	4	0.11	9	16	37	<0.10	4	77	0.9	<20
	23 Jun 2023	STR SED 02 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	7	0.41	12	27	27	0.11	7	126	1.3	<20
	23 Jun 2023	STR SED 02 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	6	0.41	11	28	23	<0.10	6	127	1.3	<20
	23 Jun 2023	STR SED 03 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	5	0.30	11	31	130	<0.10	7	115	1.3	<20
	23 Jun 2023	STR SED 03 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	5	0.24	10	28	42	<0.10	6	111	1.2	<20
	23 Jun 2023	STR SED 04 0.3	0.2 - 0.3	3299078	Normal	-	-	-	-	-	-	-	-	<2	<0.10	9	10	15.4	<0.10	4	52	1.0	<20
	23 Jun 2023	STR SED 04 0.05	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	4	0.19	10	18	15.0	<0.10	4	75	1.4	<20
	29 Jun 2023	SB 01 TP 01 0.1	0 - 0.1	3299078	Normal	<20	<0.10	11	13	17.5	<0.10	3	42	-	-	-	-	-	-	-	-	0.5	-
	29 Jun 2023	SB 01 TP 01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	8	11	16.4	<0.10	4	35	-	-	-	-	-	-	-	-	0.6	-
	29 Jun 2023	SB 02 TP 01 0.1	0 - 0.1	3299078	Normal	<20	<0.10	9	39	27	<0.10	6	68	-	-	-	-	-	-	-	-	0.7	-
	29 Jun 2023	SB 05 TP 01 0.1	0 - 0.1	3299078	Normal	<20	<0.10	21	59	25	0.16	9	78	-	-	-	-	-	-	-	-	1.7	-
	29 Jun 2023	SB 05 TP 01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	16	49	25	<0.10	9	78	-	-	-	-	-	-	-	-	1.6	-
	29 Jun 2023	SB 06 TP 01 0.1	0 - 0.1	3299078	Normal	<20	<0.10	20	48	10.7	<0.10	11	63	-	-	-	-	-	-	-	-	0.7	-
	29 Jun 2023	SB 07 TP 01 0.1	0 - 0.1	3299078	Normal	<20	<0.10	18	73	25	<0.10	11	66	-	-	-	-	-	-	-	-	0.6	-
	29 Jun 2023	SB 07 TP 01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	15	21	11.7	<0.10	8	56	-	-	-	-	-	-	-	-	0.6	-
	11 Sep 2023	NW FILL TP04 0.1		3362681	Normal	<20	0.13	11	19	14.9	0.27	3	27	-	-	-	-	-	-	-	-	1.0	-
	11 Sep 2023	WDF TP03 0.5		3362681	Normal	<20	<0.10	26	35	20	0.12	10	53	-	-	-	-	-	-	-	-	2.3	-
B16_TP01	12 Jun 2023	Dup E5		3299078	Field_D	<20	<0.10	7	9	16.3	<0.10	4	80	-	-	-	-	-	-	-	-	0.5	-
B16_TP04	16 Mar 2023	B16 TP04 0.1	0 - 0.1	3209697	Normal	172	0.47	12	64	196	<0.10	44	155	-	-	-	-	-	-	-	-	2.4	-
B16_TP06	16 Mar 2023	B16 TP06 0.1	0 - 0.1	3209697	Normal	1,430	0.11	10	36	35	<0.10	220	220	-	-	-	-	-	-	-	-	9.4	-
B16_TP06	16 Mar 2023	B16 TP06 0.5	0.4 - 0.5	3209697	Normal	54	0.11	9	14	20	0.11	7	47	-	-	-	-	-	-	-	-	1.0	-
B16_TP07	17 Mar 2023	B16 TP07 0.1	0 - 0.1	3209697	Normal	<20	0.24	9	21	51	0.14	5	108	-	-	-	-	-	-	-	-	1.3	-
B19_TP01	19 Jun 2023	B19 TP01 0.1	0 - 0.1	3299078	Normal	<20	0.27	12	36	240	0.10	7	171	-	-	-	-	-	-	-	-	1.0	-
B19_TP01	19 Jun 2023	B19 TP01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	8	18	54	<0.10	5	76	-	-	-	-	-	-	-	-	1.1	-
B19_TP02	19 Jun 2023	B19 TP02 0.1	0 - 0.1	3299078	Normal	<20	0.80	11	43	58	0.22	6	131	-	-	-	-	-	-	-	-	1.6	-
B19_TP02	19 Jun 2023	B19 TP02 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	10	20	<0.10	4	42	-	-	-	-	-	-	-	-	0.7	-
B25_HA01	20 Jun 2023	B25 HA01 0.1	0 - 0.1	3299078	Normal	<20	0.21	9	18	17.8	0.13	5	109	-	-	-	-	-	-	-	-	1.1	-
B25_HA01	20 Jun 2023	B25 HA01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	7	8	15.5	<0.10	3	34	-	-	-	-	-	-	-	-	0.5	-
B25_HA02	20 Jun 2023	B25 HA02 0.1	0 - 0.1	3299078	Normal	<20	<0.10	9	17	22	0.12	5	65	-	-	-	-	-	-	-	-	0.7	-
B25_HA02	20 Jun 2023	B25 HA02 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	14	16.6	0.11	5	42	-	-	-	-	-	-	-	-	0.8	-
B25_HA03	20 Jun 2023	B25 HA03 0.1	0 - 0.1	3299078	Normal	<20	<0.10	9	12	16.7	<0.10	4	77	-	-	-	-	-	-	-	-	0.7	-
B25_HA03	20 Jun 2023	B25 HA03 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	11	12	16.8	<0.10	6	57	-	-	-	-	-	-	-	-	0.6	-
B26_TP01	19 Jun 2023	B26 TP01 0.1	0 - 0.1	3299078	Normal	40	0.31	13	69	290	0.17	7	158	-	-	-	-	-	-	-	-	1.1	-
B26_TP02	19 Jun 2023	B26 TP02 0.1	0 - 0.1	3299078	Normal	47	0.33	13	71	260	0.17	8	149	-	-	-	-	-	-	-	-	1.1	-
B26_TP02	19 Jun 2023	B26 TP02 0.5	0.4 - 0.5	3299078	Normal	31	0.13	13	38	44	0.13	6	63	-	-	-	-	-	-	-	-	1.2	-
B26_TP03	19 Jun 2023	B26 TP03 0.1	0 - 0.1	3299078	Normal	32	0.42	12	68	260	0.15	7	151	-	-	-	-	-	-	-	-	1.3	-
B26_TP03	19 Jun 2023	B26 TP03 0.5	0.4 - 0.5	3299078	Normal	23	0.28	11	43	260	0.17	6	103	-	-	-	-	-	-	-	-	1.3	-
B34_TP01	07 Jun 2023	B34 TP 01 0.10	0 - 0.1	3299078	Normal	<20	0.23	11	26	38	<0.10	7	138	-	-	-	-	-	-	-	-	0.9	-
B34_TP01	07 Jun 2023	B34 TP 01 0.50	0.4 - 0.5	3299078	Normal	<20	0.21	9	26	40	0.14	4	88	-	-	-	-	-	-	-	-	1.3	-
B34_TP02	07 Jun 2023	B34 TP 02 0.10	0 - 0.1	3299078	Normal	<20	0.35	12	60	121	0.13	9	133	-	-	-	-	-	-	-	-	1.1	-
B34_TP02	07 Jun 2023	B34 TP 02 0.50	0.4 - 0.5	3299078	Normal	<20	0.11	11	18	21	0.17	5	48	-	-	-	-	-	-	-	-	1.3	-
B34_TP03	07 Jun 2023	B34 TP 03 0.10	0 - 0.1	3299078	Normal	<20	0.33	11	34	39	0.14	9	92	-	-	-	-	-	-	-	-	1.1	-
B34_TP03	07 Jun 2023	B34 TP 03 0.50	0.4 - 0.5	3299078	Normal	<20	0.26	8	26	22	0.12	5	72	-	-	-	-	-	-	-	-	1.1	-
B34_TP04	07 Jun 2023	B34 TP 04 0.10	0 - 0.1	3299078	Normal	<20	<0.10	5	12	20	<0.10	3	38	-	-	-	-	-	-	-	-	0.5	-
B34_TP04	07 Jun 2023	B34 TP 04 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	9	17	24	0.10	4	39	-	-	-	-	-	-	-	-	0.7	-
B34_TP05	07 Jun 2023	B34 TP 05 0.10	0 - 0.1	3299078	Normal	<20	0.43	26	56	105	0.15	38	220	-	-	-	-	-	-	-	-	1.2	-
B34_TP05	07 Jun 2023	B34 TP 05 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	10	11	23	<0.10	4	32	-	-	-	-	-	-	-	-	0.6	-
B34_TP06	07 Jun 2023	B34 TP 06 0.10	0 - 0.1	3299078	Normal	<20	0.35	10	41	187	0.12	10	210	-	-	-	-	-	-	-	-	1.5	-
B34_TP06	07 Jun 2023	B34 TP 06 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	9	19	22	0.10	5	52	-	-	-	-	-	-	-	-	0.6	-
B34_TP07	07 Jun 2023	B34 TP 07 0.10	0 - 0.1	3299078	Normal	23	0.34	24	37	49	<0.10	40	110	-	-	-	-	-	-	-	-	1.1	-
B34_TP07	07 Jun 2023	B34 TP 07 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	9	13	21	<0.10	4	33	-	-	-	-	-	-	-	-	0.5	-
B35_HA01	12 Jun 2023	B35 HA01 0.10	0 - 0.1	3299078	Normal	<20	0.50	14	57	630	0.54	7	260	-	-	-	-	-	-	-	-	1.0	-
B35_HA01	12 Jun 2023	B35 HA01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	7	12	54	<0.10	3	43	-	-	-	-	-	-	-	-	0.6	-
B35_HA04	12 Jun 2023	B35 HA04 0.10	0 - 0.1	3299078	Normal	<20	0.41	11	43	360	0.23	6	210	-	-	-	-	-	-	-	-	1.0	-
B35_HA04	12 Jun 2023	B35 HA04 0.50	0.4 - 0.5	3299078	Normal	<20	0.10	9	14	87	<0.10	3	74	-	-	-	-	-	-	-	-	0.7	-
B35_TP01	07 Jun 2023	B35 TP 01 0.10	0 - 0.1	3299078	Normal	<20	<0.10	8	14	29	<0.10	5	30	-	-	-	-	-	-	-	-	0.6	-
B35_TP01	07 Jun 2023	B35 TP 01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	8	9	21	<0.10	4	29	-	-	-	-	-	-	-	-	0.5	-
B35_TP02	07 Jun 2023	B35 TP 02 0.10	0 - 0.1	3299078	Normal	<20	0.16	82	70	28	0.19	250	103	-	-	-	-	-	-	-	-	1.4	-
B35_TP02	07 Jun 2023	B35 TP 02 0.50	0.4 - 0.5	3299078	Normal	<20	0.13	13	22	21	0.14	13	65	-	-	-	-	-	-	-	-	2.2	-

														Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg									
						Boron	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Beryllium	Boron
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B35_TP03	07 Jun 2023	B35 TP 03 0.10	0 - 0.1	3299078	Normal	185	0.38	12	59	260	<0.10	13	270	-	-	-	-	-	-	-	-	0.5	-
B35_TP03	07 Jun 2023	B35 TP 03 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	8	9	18.4	<0.10	3	29	-	-	-	-	-	-	-	-	0.9	-
B35_TP04	07 Jun 2023	B35 TP 04 0.10	0 - 0.1	3299078	Normal	<20	<0.10	7	13	30	<0.10	5	66	-	-	-	-	-	-	-	-	0.8	-
B35_TP04	07 Jun 2023	B35 TP 04 0.50	0.4 - 0.5	3299078	Normal	<20	0.17	9	19	35	0.18	4	59	-	-	-	-	-	-	-	-	0.9	-
B35_TP05	07 Jun 2023	B35 TP 05 0.10	0 - 0.1	3299078	Normal	<20	<0.10	5	9	69	<0.10	2	53	-	-	-	-	-	-	-	-	0.3	-
B35_TP05	07 Jun 2023	B35 TP 05 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	11	10	23	<0.10	4	37	-	-	-	-	-	-	-	-	1.1	-
B59_TP04	14 Jun 2023	B59 TP04 0.10	0 - 0.1	3299078	Normal	175	0.40	25	28	61	0.12	25	135	-	-	-	-	-	-	-	-	1.5	-
B59_TP04	14 Jun 2023	B59 TP04 0.50	0.4 - 0.5	3299078	Normal	<20	0.22	9	14	23	0.10	3	56	-	-	-	-	-	-	-	-	1.3	-
B63_TP01	14 Jun 2023	B63 TP01 0.10	0 - 0.1	3299078	Normal	<20	<0.10	9	11	8.2	<0.10	11	54	-	-	-	-	-	-	-	-	0.4	-
B63_TP03	21 Mar 2023	B63 TP03 0.1	0 - 0.1	3211645	Normal	<20	<0.10	4	4	4.3	<0.10	3	22	-	-	-	-	-	-	-	-	0.2	-
B63_TP04	21 Mar 2023	B63 TP04 0.2	0.1 - 0.2	3211645	Normal	<20	<0.10	8	10	16.5	<0.10	4	37	-	-	-	-	-	-	-	-	0.7	-
B66_TP01	21 Mar 2023	B66 TP01 0.1	0 - 0.1	3211645	Normal	<20	<0.10	6	870	12.1	<0.10	2	40	-	-	-	-	-	-	-	-	<0.2	-
B66_TP01	21 Mar 2023	B66 TP01 0.9	0.8 - 0.9	3211645	Normal	<20	<0.10	6	13	16.9	<0.10	3	32	-	-	-	-	-	-	-	-	0.6	-
B66_TP01	21 Mar 2023	B66 TP01 1.1	1 - 1.1	3211645	Normal	<20	<0.10	12	44	15.5	<0.10	7	61	-	-	-	-	-	-	-	-	1.4	-
B66_TP01	21 Mar 2023	B66 TP01 1.1	1 - 1.1	3213233	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B67_HA01	14 Jun 2023	B67 HA01 0.10	0 - 0.1	3299078	Normal	<20	<0.10	9	12	6.3	<0.10	7	33	-	-	-	-	-	-	-	-	0.4	-
B67_HA01	14 Jun 2023	B67 HA01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	5	4	4.5	<0.10	3	24	-	-	-	-	-	-	-	-	0.3	-
B67_HA02	14 Jun 2023	B67 HA02 0.10	0 - 0.1	3299078	Normal	580	0.17	18	46	29	0.10	29	72	-	-	-	-	-	-	-	-	1.0	-
B67_HA02	14 Jun 2023	B67 HA02 0.50	0.4 - 0.5	3299078	Normal	84	<0.10	15	22	17.5	0.10	6	45	-	-	-	-	-	-	-	-	0.9	-
B68_TP06	20 Mar 2023	B68 TP06 0.1	0 - 0.1	3211645	Normal	<20	<0.10	15	18	10.8	<0.10	23	51	-	-	-	-	-	-	-	-	0.6	-
B68_TP08	20 Mar 2023	B68 TP08 0.2	0.1 - 0.2	3211645	Normal	<20	<0.10	4	3	3.8	<0.10	3	20	-	-	-	-	-	-	-	-	0.2	-
B71_TP01	14 Jun 2023	B71 TP01 0.10	0 - 0.1	3299078	Normal	<20	0.16	10	24	23	0.11	6	65	-	-	-	-	-	-	-	-	1.0	-
B71_TP01	14 Jun 2023	B71 TP01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	12	32	18.4	0.13	7	42	-	-	-	-	-	-	-	-	1.3	-
B71_TP02	14 Jun 2023	B71 TP02 0.10	0 - 0.1	3299078	Normal	<20	0.26	11	35	27	0.15	6	66	-	-	-	-	-	-	-	-	1.2	-
B71_TP02	14 Jun 2023	B71 TP02 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	26	62	22	0.38	11	67	-	-	-	-	-	-	-	-	1.8	-
B73_TP01	20 Jun 2023	B73 TP01 0.1	0 - 0.1	3299078	Normal	<20	0.40	10	20	47	0.13	4	73	-	-	-	-	-	-	-	-	1.1	-
B73_TP01	20 Jun 2023	B73 TP01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	10	20	20	<0.10	4	36	-	-	-	-	-	-	-	-	0.6	-
BWL_TP01	08 Jun 2023	BWL TP 01 0.10	0 - 0.1	3299078	Normal	<20	0.14	8	17	34	<0.10	4	74	-	-	-	-	-	-	-	-	1.0	-
BWL_TP01	08 Jun 2023	BWL TP 01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	6	10	15.0	<0.10	3	51	-	-	-	-	-	-	-	-	1.1	-
BWL_TP02	08 Jun 2023	BWL TP 02 0.10	0 - 0.1	3299078	Normal	<20	0.17	8	16	33	0.12	5	77	-	-	-	-	-	-	-	-	0.7	-
BWL_TP02	08 Jun 2023	BWL TP 02 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	5	5	17.1	<0.10	3	21	-	-	-	-	-	-	-	-	0.3	-
BWL_TP03	08 Jun 2023	BWL TP 03 0.10	0 - 0.1	3299078	Normal	<20	0.20	9	21	30	0.15	5	72	-	-	-	-	-	-	-	-	0.8	-
BWL_TP03	08 Jun 2023	BWL TP 03 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	7	13	18.2	<0.10	4	39	-	-	-	-	-	-	-	-	0.6	-
BWL_TP04	08 Jun 2023	BWL TP 04 0.10	0 - 0.1	3299078	Normal	<20	0.33	9	36	82	0.18	5	103	-	-	-	-	-	-	-	-	1.0	-
BWL_TP04	08 Jun 2023	BWL TP 04 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	6	6	21	<0.10	3	28	-	-	-	-	-	-	-	-	0.3	-
BWL_TP04	08 Jun 2023	DUP B1		3299078	Field_D	<20	0.31	9	28	111	0.17	6	102	-	-	-	-	-	-	-	-	1.0	-
BWL_TP05	08 Jun 2023	BWL TP 05 0.10	0 - 0.1	3299078	Normal	<20	<0.10	5	9	15.6	<0.10	2	36	-	-	-	-	-	-	-	-	0.5	-
BWL_TP05	08 Jun 2023	BWL TP 05 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	6	10	17.2	<0.10	3	45	-	-	-	-	-	-	-	-	0.5	-
BWL_TP06	08 Jun 2023	BWL TP 06 0.10	0 - 0.1	3299078	Normal	<20	0.20	9	19	18.6	0.15	5	74	-	-	-	-	-	-	-	-	0.9	-
BWL_TP06	08 Jun 2023	BWL TP 06 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	6	6	16.3	<0.10	3	23	-	-	-	-	-	-	-	-	0.3	-
CHP_TP01	16 Mar 2023	CHP TP01 0.2	0.1 - 0.2	3209697	Normal	<20	<0.10	9	11	163	<0.10	6	56	-	-	-	-	-	-	-	-	0.4	-
CHP_TP01	16 Mar 2023	CHP TP01 0.5	0.4 - 0.5	3209697	Normal	<20	<0.10	7	10	19.8	<0.10	3	24	-	-	-	-	-	-	-	-	0.5	-
CHP_TP04	16 Mar 2023	CHP TP04 0.2	0.1 - 0.2	3209697	Normal	<20	0.13	7	117	35	<0.10	4	280	-	-	-	-	-	-	-	-	0.8	-
CHP_TP04	16 Mar 2023	CHP TP04 0.6	0.5 - 0.6	3209697	Normal	<20	<0.10	5	17	19.4	<0.10	3	66	-	-	-	-	-	-	-	-	0.8	-
DIP_TP01	17 Mar 2023	DIP TP01 0.2	0.1 - 0.2	3209697	Normal	109	0.27	14	54	65	0.15	15	134	-	-	-	-	-	-	-	-	1.0	-
DIP_TP02	17 Mar 2023	DIP TP02 0.2	0.1 - 0.2	3209697	Normal	<20	0.27	8	55	80	0.22	6	97	-	-	-	-	-	-	-	-	0.9	-
DIP_TP03	17 Mar 2023	DIP TP03 0.2	0.1 - 0.2	3209697	Normal	1,200	0.23	15	60	59	0.20	102	95	-	-	-	-	-	-	-	-	2.8	-
DS01_TP01	12 Jun 2023	DS01 TP01 0.10	0 - 0.1	3299078	Normal	<20	<0.10	8	30	44	0.13	4	41	-	-	-	-	-	-	-	-	1.0	-
DS01_TP01	12 Jun 2023	DS01 TP01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	7	24	38	<0.10	4	35	-	-	-	-	-	-	-	-	0.7	-
DS01_TP02	12 Jun 2023	DS01 TP02 0.10	0 - 0.1	3299078	Normal	<20	0.17	9	16	24	<0.10	5	63	-	-	-	-	-	-	-	-	0.8	-
DS01_TP03	12 Jun 2023	DS01 TP03 0.10	0 - 0.1	3299078	Normal	<20	0.13	9	25	34	<0.10	4	49	-	-	-	-	-	-	-	-	1.1	-
DS01_TP03	12 Jun 2023	DS01 TP03 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	3	4	32	<0.10	<2	20	-	-	-	-	-	-	-	-	0.4	-
DS01_TP03	12 Jun 2023	DUP C1		3299078	Field_D	<20	0.13	10	26	34	<0.10	5	54	-	-	-	-	-	-	-	-	0.9	-
DS01_TP04	12 Jun 2023	DS01 TP04 0.10	0 - 0.1	3299078	Normal	<20	<0.10	6	13	29	<0.10	3	30	-	-	-	-	-	-	-	-	0.6	-
DS01_TP05	12 Jun 2023	DS01 TP05 0.10	0 - 0.1	3299078	Normal	<20	0.18	10	20	30	<0.10	5	50	-	-	-	-	-	-	-	-	0.9	-
DS01_TP05	12 Jun 2023	DS01 TP05 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	6	5	31	<0.10	<2	24	-	-	-	-	-	-	-	-	0.4	-
DS02_TP01	19 Jun 2023	DS02 TP01 0.1	0 - 0.1	3299078	Normal	<20	0.25	15	51	47	0.27	8	94	-	-	-	-	-	-	-	-	1.2	-
DS02_TP01	19 Jun 2023	DS02 TP01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	32	70	21	0.43	14	83	-	-	-	-	-	-	-	-	1.9	-
DS02_TP02	12 Jun 2023	Dup E1		3299078	Field_D	<20	0.20	16	46	23	0.19	8	70	-	-	-	-	-	-	-	-	1.1	-
DS02_TP02	19 Jun 2023	DS02 TP02 0.1	0 - 0.1	3299078	Normal	<20	0.21	14	45	25	0.19	8	72	-	-	-	-	-	-	-	-	1.1	-
DS02_TP03	20 Jun 2023	DS02 TP03 0.1	0 - 0.1	3299078	Normal	<20	0.62	13	55	490	0.11	7	200	-	-	-	-	-	-	-	-	0.9	-
DS02_TP03	20 Jun 2023	DS02 TP03 0.5	0.4 - 0.5	3299078	Normal	<20	0.16	14	56	71	0.10	11	290	-	-	-	-	-	-	-	-	1.0	-
DS02_TP04	20 Jun 2023	DS02 TP04 0.1	0 - 0.1	3299078	Normal	<20	0.23	8	20	36	0.15	4	75	-	-	-	-	-	-	-	-	0.7	-
DS02_TP05	20 Jun 2023	DS02 TP05 0.1	0 - 0.1	3299078	Normal	<20	0.48	17	50	240	0.14	7	109	-	-	-	-	-	-	-	-	1.0	-
DS02_TP05	20 Jun 2023	DS02 TP05 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	28	19.9	<0.10	6	30	-	-	-	-	-	-	-	-	1.1	-
DS03_TP01	21 Jun 2023	DS03 TP01 0.1	0 - 0.1	3299078	Normal	<20	0.27	10	39	191	0.10	4	181	-	-	-	-	-	-	-	-	0.7	-
DS03_TP01	21 Jun 2023	DS03 TP01 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	11	31	<0.10	3	45	-	-	-	-	-	-	-	-	0.6	-
DS03_TP02	21 Jun 2023	DS03 TP02 0.1	0 - 0.1	3299078	Normal	<20	0.39	9	23	34	0.18	5	85	-	-	-	-	-	-	-	-	1.0	-
DS03_TP02	21 Jun 2023	DS03 TP02 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	11	18.1	0.12	4	40	-	-	-	-	-	-	-	-	0.5	-
DS03_TP03	21 Jun 2023	DS03 TP03 0.1	0 - 0.1	3299078	Normal	<20	0.37	9	101	112	<0.10	4	112	-	-	-	-	-	-	-	-	0.5	-
DS03_TP03	21 Jun 2023	DS03 TP03 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	9	9	22	<0.10	4	31	-	-	-	-	-	-	-	-	0.4	-
DS03_TP04	12 Jun 2023	Dup F1		3299078	Field_D	<20	<0.10	9	8	17.8	<0.10	4	36	-	-	-	-	-	-	-	-	0.7	-
DS03_TP04	21 Jun 2023	DS03 TP04 0.1	0 - 0.1	3299078	Normal	<20	0.27	12	98	47	0.11	4	91	-	-	-	-	-	-	-	-	1.0	-
DS03_TP04	21 Jun 2023	DS03 TP04 0.5	0.4 - 0.5	3299078	Normal	<20	<0.10	10	9	18.7	<0.10	4	39	-	-	-	-	-	-	-	-	0.7	-
HT_CompC3	09 Jun 2023	HT COMPC3 0.10	0 - 0.1	3299078	Normal	<20	0.30	8	30	30	0.43	4	119	-	-	-	-	-	-	-	-	0.7	-
HT_CompE2	09 Jun 2023	HT COMPE2 0.10	0 - 0.1	3299078	Normal	23	0.36	10	42	36	0.21	5	175	-	-	-	-	-	-	-	-	0.8	-
HT_CompE4	09 Jun 2023	HT COMPE4 0.10	0 - 0.1	3299078	Normal	47	0.13	11	29	22	<0.10	27	72	-	-	-	-	-	-	-	-	0.9	-
HT_TP25	17 Mar 2023	HT TP25 0.2	0.1 - 0.2	3209697	Normal	650	0.22	11	109	51	0.16	50	97	-	-	-	-	-	-	-	-	2.0	-
HT_TP25	17 Mar 2023	HT TP25 1.2	1.1 - 1.2	3209697	Normal	<20	<0.10	7	10	19.3	<0.10	3	28	-	-	-	-	-	-	-	-	0.7	-
HT_TP27	17 Mar 2023	HT TP27 0.1	0 - 0.1	3209697	Normal	380	0.14	13	28	83	<0.10	35	81	-	-	-	-	-	-	-	-	1.7	-
HT_TP27	17 Mar 2023	HT TP27 0.5	0.4 - 0.5	3209697	Normal	<20	<0.10	8	9	18.3	<0.10	3	31	-	-	-	-	-	-	-	-	0.3	-
HT_TP27	17 Mar 2023	HT TP27 0.7	0.6 - 0.7	3209697	Normal	49	<0.10	6	9	22	<0.10	5	44	-	-	-	-	-	-	-	-	0.4	-
HT_TP28	17 Mar 2023	HT TP28 0.1	0 - 0.1	3209697	Normal	128	0.10	9	27	43	0.26	14	50	-	-	-	-	-	-	-	-	1.2	-
HT_TP29	08 Jun 2023	HT TP 29 0.10	0 - 0.1	3299078	Normal	<20	0.34	9	32	159	0.14	7	148	-	-	-	-	-	-	-	-	0.9	-
HT_TP29	08 Jun 2023	HT TP 29 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	9	8	19.8	<0.10	4	33	-	-	-	-	-	-	-	-	0.4	-
HT_TP30	08 Jun 2023	HT TP 30 0.10	0 - 0.1	3299078	Normal	79	0.39	9	39	145	0.12	16	121	-	-	-	-	-	-	-	-	2.2	-
HT_TP30	08 Jun 2023	HT TP 30 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	9	13	21	<0.10	4	38	-	-	-	-	-	-	-	-	0.7	-
HT_TP31	08 Jun 2023	HT TP 31 0.10	0 - 0.1	3299078	Normal	25	0.19	11	26	83	<0.10	11	123	-	-	-	-	-	-	-	-	0.8	-
HT_TP31	08 Jun 2023	HT TP 31 0.50	0.4 - 0.5	3299078	Normal	<20	0.22	8	26	38	<0.10	6	88	-	-	-	-	-	-	-	-	1.3	-
NUR_TP01	13 Jun 2023	NUR TP01 0.10	0 - 0.1	3299078	Normal	<20	0.15	21	48	24	0.17	9	93	-	-	-	-	-	-	-	-	1.2	-
NUR_TP01	13 Jun 2023	NUR TP01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	18	44	26	0.16	8	70	-	-	-	-	-	-	-	-	1.1	-
NUR_TP02	13 Jun 2023	NUR TP02 0.10	0 - 0.1	3299078	Normal	<20	0.25	19	33	35	0.11	10	129	-	-	-	-	-	-	-	-	0.9	-
NUR_TP02	13 Jun 2023	NUR TP02 0.50	0.4 - 0.5	3299078	Normal	<20	0.16	14	40	47	0.17	9	93	-	-	-	-	-	-	-	-	1.0	-
NUR_TP03	13 Jun 2023	NUR TP03 0.10	0 - 0.1	3299078	Normal	<20	0.15	18	39	27	0.14	10	73	-	-	-	-	-	-	-	-	1.1	-
NUR_TP03	13 Jun 2023	NUR TP03 0.50	0.4 - 0.5	3299078	Normal	<20	0.10	15	40	23	0.16	10	51	-	-	-	-	-	-	-	-	1.2	-
NUR_TP04	13 Jun 2023	NUR TP04 0.10	0 - 0.1	3299078	Normal	<20	0.27	17	40	34	0.13	9	84	-	-	-	-	-	-	-	-	1.2	-
NW_Fill_TP01	11 Sep 2023	NW FILL TP01 0.1	0.1 - 0.1	3362681	Normal	<20	0.18	10	25	13.6	0.19	5	43	-	-	-	-	-	-	-	-	1.0	-
NW_Fill_TP01	11 Sep 2023	NW FILL TP01 0.5	0.5 - 0.5	3362681	Normal	<20	<0.10	12	19	15.3	0.12	6	31	-	-	-	-	-	-	-	-	0.8	-
NW_Fill_TP02	11 Sep 2023	NW FILL TP02 0.1	0.1 - 0.1	3362681	Normal	<20	0.22	8	28	15.0	0.15	4	71	-	-	-	-	-	-	-	-	0.8	-
NW_Fill_TP03	11 Sep 2023	NW FILL TP03 0.1	0.1 - 0.1	3362681	Normal	<20	0.34	8	26	12.4	0.17	4	50	-	-	-	-	-	-	-	-	1.0	-
NW_Fill_TP03	11 Sep 2023	NW FILL TP03 0.5	0.5 - 0.5	3362681	Normal	<20	<0.10	12	13	14.4	0.12	5	26	-	-	-	-	-	-	-	-	0.6	-
NW_Fill_TP04	11 Sep 2023	NW FILL TP04 0.1	0.1 - 0.1	3362681	Normal	101	0.40	46	151	17.5	<0.10	70	670	-	-	-	-	-	-	-	-	0.2	-
NW FILL TP01	12 Sep 2023	DUP J1		3362681	Field_D	<20	<0.10	12	19	15.8	0.14	6	30	-	-	-	-	-	-	-	-	0.8	-
PAV_TP01	12 Jun 2023	PAV TP01 0.10	0 - 0.1	3299078	Normal	<20	0.19	16	33	41	0.13	5	143	-	-	-	-	-	-	-	-	0.7	-
PAV_TP01	12 Jun 2023	PAV TP01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	7	21	23	0.15	5	46	-	-	-	-	-	-	-	-	0.7	-
PAV_TP02	12 Jun 2023	PAV TP02 0.10	0 - 0.1	3299078	Normal	<20	0.12	6	41	45	0.12	3	76	-	-	-	-	-	-	-	-	0.9	-
SB2_TP02	16 Mar 2023	SB2 TP02 0.2	0.1 - 0.2	3209697	Normal	<20	<0.10	15	19	18.4	<0.10	10	96	-	-	-	-	-	-	-	-	0.6	-
SB2_TP03	16 Mar 2023	SB2 TP03 0.2	0.1 - 0.2	3209697	Normal	<20	0.10	10	21	38	<0.10	5	139	-	-	-	-	-	-	-	-	0.6	-
SB4_TP01	20 Mar 2023	SB4 TP01 0.1	0 - 0.1	3211645	Normal	<20	0.24	10	26	27	0.15	5	116	-	-	-	-	-	-	-	-	0.9	-
SB4_TP02	20 Mar 2023	SB4 TP02 0.2	0.1 - 0.2	3211645	Normal	71	0.28	13	42	23	0.20	10	98	-	-	-	-	-	-	-	-	1.1	-
SB4_TP02	20 Mar 2023	SB4 TP02 0.5	0.4 - 0.5	3211645	Normal	<20	<0.10	5	15	12.2	<0.10	2	29	-	-	-	-	-	-	-	-	1.6	-
SB4_TP03	20 Mar 2023	SB4 TP03 0.1	0 - 0.1	3211645	Normal	22	0.25	10	24	35	<0.10	8	132	-	-	-	-	-	-	-	-	1.0	-
SB8_TP01	12 Sep 2023	SB08 TP01 0.2	0.2 - 0.2	3362681	Normal	<20	<0.10	15	54	18.8	0.19	16	41	-	-	-	-	-	-	-	-	1.0	-
SB8_TP01	12 Sep 2023	SB08 TP01 0.5	0.5 - 0.5	3362681	Normal	<20	<0.10	13	27	18.6	0.13	8	39	-	-	-	-	-	-	-	-	1.1	-
WD2_TP01	22 Mar 2023	WD2 TP01 0.1	0 - 0.1	3214115	Normal	<20	0.14	9	16	41	0.12	4	62	-	-	-	-	-	-	-	-	0.7	-
WD2_TP02	22 Mar 2023	WD2 TP02 0.1	0 - 0.1	3214115	Normal	<20	0.20	8	15	35	0.12	4	60	-	-	-	-	-	-	-	-	0.7	-
WD2_TP03	22 Mar 2023	WD2 TP03 0.1	0 - 0.1	3214115	Normal	<20	0.29	9	23	45	0.15	5	94	-	-	-	-	-	-	-	-	0.9	-
WD2_TP04	22 Mar 2023	WD2 TP04 0.1	0 - 0.1	3214115	Normal	<20	0.15	8	22	89	0.10	4	79	-	-	-	-	-	-	-	-	0.7	-
WD2_TP05	22 Mar 2023	WD2 TP05 0.1	0 - 0.1	3214115	Normal	<20	0.14	8	18	42	<0.10	4	78	-	-	-	-	-	-	-	-	0.8	-
WD2_TP06	22 Mar 2023	WD2 TP06 0.1	0 - 0.1	3214115	Normal	<20	0.30	10	28	43	0.17	5	79	-	-	-	-	-	-	-	-	0.9	-
WD2_TP07	22 Mar 2023	WD2 TP07 0.1	0 - 0.1	3214115	Normal	<20	0.13	9	20	29	0.11	4	51	-	-	-	-	-	-	-	-	0.8	-

														Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg									
						Boron	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Beryllium	Boron
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
WD2_TP08	22 Mar 2023	WD2 TP08 0.2	0.1 - 0.2	3214115	Normal	<20	0.30	9	24	44	0.14	5	81	-	-	-	-	-	-	-	-	0.9	-
WD2_TP09	22 Mar 2023	WD2 TP09 0.1	0 - 0.1	3214115	Normal	<20	0.26	9	23	39	0.14	5	93	-	-	-	-	-	-	-	-	0.8	-
WDF_TP01	11 Sep 2023	WDF TP01 0.1	0.1 - 0.1	3362681	Normal	<20	0.11	14	33	33	0.17	8	56	-	-	-	-	-	-	-	-	1.0	-
WDF_TP02	11 Sep 2023	WDF TP02 0.1	0.1 - 0.1	3362681	Normal	<20	0.15	18	61	320	0.23	9	91	-	-	-	-	-	-	-	-	1.3	-
WDF_TP03	11 Sep 2023	WDF TP03 0.1	0.1 - 0.1	3362681	Normal	<20	<0.10	27	85	19.5	0.27	11	47	-	-	-	-	-	-	-	-	2.2	-
WDG_TP01	11 Sep 2023	WDG TP01 0.1	0.1 - 0.1	3362681	Normal	<20	0.12	18	47	44	0.17	9	66	-	-	-	-	-	-	-	-	1.3	-
WDG_TP02	11 Sep 2023	WDG TP02 0.1	0.1 - 0.1	3362681	Normal	<20	<0.10	12	21	18.6	0.16	6	31	-	-	-	-	-	-	-	-	0.8	-
WDG_TP03	11 Sep 2023	WDG TP03 0.1	0.1 - 0.1	3362681	Normal	<20	<0.10	22	61	16.3	0.27	11	62	-	-	-	-	-	-	-	-	1.6	-
WDG_TP03	11 Sep 2023	WDG TP03 0.5	0.5 - 0.5	3362681	Normal	<20	<0.10	25	41	16.4	0.35	9	58	-	-	-	-	-	-	-	-	1.8	-
WDH_TP01	12 Sep 2023	WDH TP01 0.1	0.1 - 0.1	3362681	Normal	<20	0.11	12	35	38	0.17	6	61	-	-	-	-	-	-	-	-	0.9	-
WDH_TP02	12 Sep 2023	WDH TP02 0.1	0.1 - 0.1	3362681	Normal	<20	<0.10	14	25	24	<0.10	8	58	-	-	-	-	-	-	-	-	0.9	-
WDH_TP03	12 Sep 2023	WDH TP03 0.1	0.1 - 0.1	3362681	Normal	<20	0.12	20	38	48	0.18	13	103	-	-	-	-	-	-	-	-	1.4	-
WDH_TP03	12 Sep 2023	WDH TP03 0.5	0.5 - 0.5	3362681	Normal	<20	<0.10	24	101	16.0	0.25	13	53	-	-	-	-	-	-	-	-	1.9	-
WDH TP02	12 Sep 2023	DUP J2		3362681	Field_D	<20	<0.10	13	25	26	<0.10	8	58	-	-	-	-	-	-	-	-	0.8	-
WWTP_TP01	13 Jun 2023	WWTP TP01 0.10	0 - 0.1	3299078	Normal	<20	0.12	7	14	17.5	<0.10	4	59	-	-	-	-	-	-	-	-	0.9	-
WWTP_TP01	13 Jun 2023	WWTP TP01 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	5	14	16.2	<0.10	4	38	-	-	-	-	-	-	-	-	1.3	-
WWTP_TP02	12 Jun 2023	Dup D1 [A]		3299078	Field_D	<20	<0.10	9	13	19.3	<0.10	4	48	-	-	-	-	-	-	-	-	0.9	-
WWTP_TP02	13 Jun 2023	WWTP TP02 0.10	0 - 0.1	3299078	Normal	<20	0.13	8	15	19.8	0.11	5	57	-	-	-	-	-	-	-	-	0.8	-
WWTP_TP02	13 Jun 2023	WWTP TP02 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	5	14	15.1	<0.10	4	44	-	-	-	-	-	-	-	-	1.5	-
WWTP_TP03	13 Jun 2023	WWTP TP03 0.10	0 - 0.1	3299078	Normal	<20	0.22	8	26	114	0.10	5	103	-	-	-	-	-	-	-	-	0.9	-
WWTP_TP03	13 Jun 2023	WWTP TP03 0.50	0.4 - 0.5	3299078	Normal	<20	<0.10	7	14	17.6	<0.10	4	39	-	-	-	-	-	-	-	-	1.0	-
WWTP_TP04	13 Jun 2023	WWTP TP04 0.10	0 - 0.1	3299078	Normal	<20	0.10	11	14	15.6	<0.10	9	78	-	-	-	-	-	-	-	-	0.4	-
WWTP_TP04	13 Jun 2023	WWTP TP04 0.50	0.4 - 0.5	3299078	Normal	<20	0.13	11	14	15.4	<0.10	8	81	-	-	-	-	-	-	-	-	0.4	-

Location Code	Date	Field ID	Depth	Lab Report Number	Sample Type	BTEX in Soil by Headspace GC-MS					Polycyclic Aromatic Hydrocarbons Screening in Soil																							Total Petroleum Hydrocarbons in Soil			
						Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Benzo(a)pyrene Potency Equivalency Factor (PEF) NES	Benzo(a)pyrene Toxic Equivalence (TEF)	Benzo(b)fluoranthene + Benzo(j)fluoranthene	2-methylnaphthalene	Benzo(e)pyrene	Perylene	1-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total) - Lab calc	C15-C36	C7-C36	C7-C9	C10-C14 Fraction
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL																																					
Location Code	**Date**	**Field ID**	**Depth**	**Lab Report Number**	**Sample Type**																																
	12 Jun 2023	B16 TP01 0.5	0.4 - 0.5	3299078	Normal	-	-	-	-	-	<0.029	<0.029	0.016	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	0.017	<0.012	0.013	<0.012	<0.012	<0.012	<0.012	0.012	<0.06	<0.012	<0.012	<0.3	<40	<80	<20	<20
	12 Jun 2023	B16 TP02 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	<0.026	<0.026	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.06	<0.011	<0.011	<0.3	<40	<80	<20	<20
	12 Jun 2023	B16 TP02 0.5	0.4 - 0.5	3299078	Normal	-	-	-	-	-	<0.031	<0.031	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.07	<0.013	<0.013	<0.4	<40	<80	<20	<20
	14 Jun 2023	B66 HA01		3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500	2,500	<40	<30
	14 Jun 2023	B66 HA02		3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17,800	17,900	<40	80
B16_TP01	12 Jun 2023	B16 TP01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	<0.027	<0.027	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.06	0.049	<0.011	<0.3	<40	<80	<20	<20
B16_TP01	12 Jun 2023	Dup E5		3299078	Field_D	-	-	-	-	-	<0.032	<0.031	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.07	0.014	<0.013	<0.4	<40	<80	<20	<20
B16_TP04	16 Mar 2023	B16 TP04 0.1	0 - 0.1	3209697	Normal	-	-	-	-	-	<0.026	<0.026	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.06	<0.011	0.011	<0.3	45	<80	<20	<20
B16_TP06	16 Mar 2023	B16 TP06 0.1	0 - 0.1	3209697	Normal	-	-	-	-	-	<0.033	<0.033	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.07	<0.014	<0.014	<0.4	94	97	<20	<20
B16_TP07	17 Mar 2023	B16 TP07 0.1	0 - 0.1	3209697	Normal	-	-	-	-	-	0.060	0.059	0.045	<0.013	0.023	<0.013	<0.013	<0.013	<0.013	<0.013	0.027	0.041	0.017	0.032	0.030	<0.013	0.058	<0.013	0.028	<0.07	0.021	0.057	0.4	<40	<80	<20	<20
B16_TP08	17 Mar 2023	B16 TP08 0.1	0 - 0.1	3209697	Normal	-	-	-	-	-	<0.034	<0.034	0.026	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	0.016	0.022	<0.014	0.018	0.019	<0.014	0.040	<0.014	0.015	<0.07	<0.014	0.036	<0.4	<40	<80	<20	<20
B16_TP08	17 Mar 2023	B16 TP08 0.5	0.4 - 0.5	3209697	Normal	-	-	-	-	-	<0.034	<0.034	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.07	<0.014	<0.014	<0.4	<40	<80	<20	<20
B16_TP09	16 Mar 2023	B16 TP09 0.1	0 - 0.1	3209697	Normal	-	-	-	-	-	<0.033	<0.033	0.026	<0.014	0.015	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	0.021	<0.014	0.022	0.015	<0.014	0.032	<0.014	0.019	<0.07	0.015	0.030	<0.4	<40	<80	<20	<20
B16_TP09	16 Mar 2023	B16 TP09 0.5	0.4 - 0.5	3209697	Normal	-	-	-	-	-	<0.033	<0.033	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.07	<0.014	<0.014	<0.4	<40	<80	<20	<20
B26_TP01	19 Jun 2023	B26 TP01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	<80	<20	<20
B26_TP02	19 Jun 2023	B26 TP02 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	<80	<20	<20
B26_TP02	19 Jun 2023	B26 TP02 0.5	0.4 - 0.5	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B26_TP03	19 Jun 2023	B26 TP03 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99	<20	<20
B63_TP03	21 Mar 2023	B63 TP03 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	<0.026	<0.026	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.06	<0.011	<0.011	<0.3	<40	<80	<20	<20
B63_TP04	21 Mar 2023	B63 TP04 0.2	0.1 - 0.2	3211645	Normal	-	-	-	-	-	<0.033	<0.033	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.07	<0.014	<0.014	<0.4	<40	<80	<20	<20
B65_TP01	16 Jun 2023	B65 TP01 0.1	0 - 0.1	3299078	Normal	<0.05	<0.05	<0.05	<0.05	<0.10	7.2	7.1	5.5	0.092	2.6	1.41	0.122	0.78	0.112	1.64	4.2	4.9	2.1	3.2	4.1	0.67	9.1	0.48	3.6	0.06	5.5	8.9	59	300	320	<20	<20
B65_TP01	16 Jun 2023	B65 TP01 0.5	0.4 - 0.5	3299078	Normal	<0.07	<0.07	<0.07	<0.07	<0.13	<0.035	<0.035	0.020	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.016	<0.015	<0.015	0.015	<0.015	0.030	<0.015	<0.015	<0.08	<0.015	0.026	<0.4	<40	<80	<20	<20
B65_TP01	16 Jun 2023	B65 TP01 1.5	1.4 - 1.5	3299078	Normal	<0.08	<0.08	<0.08	<0.08	<0.15	0.072	0.071	0.054	<0.016	0.026	0.023	<0.016	<0.016	<0.016	<0.016	0.036	0.048	0.023	0.030	0.035	<0.016	0.072	<0.016	0.036	<0.08	0.031	0.068	0.5	<40	<90	<30	<20
B65_TP02	16 Jun 2023	B65 TP02 0.1	0 - 0.1	3299078	Normal	<0.07	<0.07	<0.07	<0.07	<0.13	0.47	0.46	0.35	<0.014	0.20	0.066	<0.014	0.021	<0.014	0.038	0.24	0.32	0.135	0.22	0.26	0.048	0.59	0.016	0.22	<0.07	0.30	0.57	3.6	<40	<80	<20	<20
B65_TP02	16 Jun 2023	B65 TP02 1.0	0.9 - 1	3299078	Normal	<0.07	<0.07	<0.07	<0.07	<0.14	<0.035	<0.035	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.08	<0.015	<0.015	<0.4	<40	<90	<30	<20
B65_TP02	23 Jun 2023	B65 TP02 2.0	1.9 - 2	3299078	Normal	<0.17	<0.17	<0.17	<0.17	<0.4	<0.048	<0.048	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.10	<0.02	<0.02	<0.5	<50	<100	<30	<30
B65_TP03	16 Jun 2023	B65 TP03 0.1	0 - 0.1	3299078	Normal	<0.05	<0.05	<0.05	<0.05	<0.10	1.13	1.12	0.87	0.011	0.38	0.197	0.015	0.131	0.012	0.28	0.73	0.75	0.33	0.45	0.65	0.111	1.66	0.100	0.53	<0.06	0.84	1.56	9.6	<40	<80	<20	<20
B65_TP03	16 Jun 2023	B65 TP03 0.5	0.4 - 0.5	3299078	Normal	<0.07	<0.07	<0.07	<0.07	<0.14	<0.036	<0.036	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.08	<0.015	<0.015	<0.4	<40	<90	<30	<20
B65_TP03	16 Jun 2023	B65 TP03 1.5	1.4 - 1.5	3299078	Normal	<0.08	<0.08	<0.08	<0.08	<0.15	<0.039	<0.039	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.08	<0.016	<0.016	<0.4	<40	<90	<30	<20
B66_TP01	21 Mar 2023	B66 TP01 0.1	0 - 0.1	3211645	Normal	<0.05	<0.05	<0.05	<0.05	<0.10	0.51	0.51	0.41	<0.011	0.21	0.085	<0.011	<0.011	<0.011	<0.011	0.22	0.35	0.177	0.25	0.27	0.053	0.29	<0.011	0.26	<0.06	0.015	0.29	2.9	78	<80	<20	<20
B66_TP01	21 Mar 2023	B66 TP01 0.9	0.8 - 0.9	3211645	Normal	-	-	-	-	-	<0.039	<0.039	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.09	<0.017	<0.017	<0.4	<40	<90	<30	<20
B68_TP01	23 Mar 2023	B68 TP01 0.2	0.1 - 0.2	3214115	Normal	-	-	-	-	-	0.80	0.79	0.64	<0.011	0.31	0.129	<0.011	<0.011	0.021	0.030	0.41	0.54	0.25	0.33	0.37	0.083	0.56	<0.011	0.36	<0.06	0.054	0.47	4.6	82	83	<20	<20
B68_TP01	23 Mar 2023	B68 TP01 0.6	0.5 - 0.6	3214115	Normal	-	-	-	-	-	<0.036	<0.035	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.08	<0.015	<0.015	<0.4	<40	<90	<30	<20
B68_TP02	23 Mar 2023	B68 TP02 0.2	0.1 - 0.2	3214115	Normal	-	-	-	-	-	3.3	3.3	2.6	<0.012	1.27	0.56	<0.012	0.040	0.092	0.22	2.1	2.2	1.01	1.26	1.92	0.33	3.9	0.017	1.41	<0.06	0.46	3.1	22	124	127	<20	<20
B68_TP03	23 Mar 2023	B68 TP03 0.2	0.1 - 0.2	3214115	Normal	-	-	-	-	-	0.126	0.124	0.103	<0.014	0.049	0.021	<0.014	<0.014	<0.014	0.018	0.085	0.084	0.041	0.044	0.080	<0.014	0.22	<0.014	0.048	<0.07	0.059	0.147	1.0	<40	<80	<20	<20
B68_TP03	23 Mar 2023	B68 TP03 0.5	0.4 - 0.5	3214115	Normal	-	-	-	-	-	<0.036	<0.036	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.08	<0.015	<0.015	<0.4	<40	<90	<30	<20
B68_TP04	23 Mar 2023	B68 TP04 0.1	0 - 0.1	3214115	Normal	-	-	-	-	-	0.56	0.56	0.45	<0.011	0.22	0.090	<0.011	<0.011	0.017	0.037	0.33	0.38	0.177	0.23	0.31	0.058	0.61	<0.011	0.24	<0.06	0.099	0.47	3.7	83	84	<20	<20
B68_TP04	23 Mar 2023	B68 TP04 0.5	0.4 - 0.5	3214115	Normal	-	-	-	-	-	<0.037	<0.036	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.08	<0.015	<0.015	<0.4	<40	<90	<30	<20
B68_TP06	20 Mar 2023	B68 TP06 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	<0.026	<0.026	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.06	<0.011	<0.011	<0.3	<40	<80	<20	<20
B68_TP06	20 Mar 2023	B68 TP06 0.5	0.4 - 0.5	3211645	Normal	-	-	-	-	-	<0.028	<0.027	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.06	<0.012	<0.012	<0.3	<40	<80	<20	<20
B68_TP07	20 Mar 2023	B68 TP07 0.2	0.1 - 0.2	3211645	Normal	-	-	-	-	-	<0.027	<0.027	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.06	<0.011	<0.011	<0.3	<40	<80	<20	<20
B68_TP08	20 Mar 2023	B68 TP08 0.2	0.1 - 0.2	3211645	Normal	-	-	-	-	-	<0.027	<0.027	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.06	<0.012	<0.012	<0.3	<40	<80	<20	<20
B74_TP01	23 Mar 2023	B74 TP01 0.1	0 - 0.1	3214115	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP02	23 Mar 2023	B74 TP02 0.1	0 - 0.1	3214115	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	<80	<20	<20
B74_TP02	23 Mar 2023	B74 TP02 0.5	0.4 - 0.5	3214115	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP02	23 Mar 2023	B74 TP02 1.9	1.8 - 1.9	3214115	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP02	23 Mar 2023	B74 TP02 2.1	2 - 2.1	3214115	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP03	23 Mar 2023	B74 TP03 0.1	0 - 0.1	3214115	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP03	23 Mar 2023	B74 TP03 2.2	2.1 - 2.2	3214115	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP04	21 Mar 2023	B74 TP04 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	<80	<20	<20
B74_TP04	21 Mar 2023	B74 TP04 0.7	0.6 - 0.7	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP04	21 Mar 2023	B74 TP04 2.1	2 - 2.1	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
B74_TP06	20 Mar 2023	B74 TP06 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	<90	<30	<20
B74_TP06	20 Mar 2023	B74 TP06 2.5	2.4 - 2.5	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<80	<20	<20
B74_TP07	20 Mar 2023	B74 TP07 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
HT_CompC3	09 Jun 2023	HT COMPC3 0.10	0 - 0.1	3299078	Normal	-	-	-	-	-	<0.036	<0.036	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.08	<0.015	<0.015	<0.4	-	-	-	-
HT_TP25	17 Mar 2023	HT TP25 0.2	0.1 - 0.2	3209697	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<80	<20	<20
HT_TP27	17 Mar 2023	HT TP27 0.1	0 - 0.1	3209697	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<80	<20	<20
HT_TP28	17 Mar 2023	HT TP28 0.1	0 - 0.1	3209697	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<80	<20	<20
NW_Fill_TP04	11 Sep 2023	NW FILL TP04 0.1	0.1 - 0.1	3362681	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<120	<300	<70	<60
NW FILL TP01	12 Sep 2023	DUP J1		3362681	Field_D	-	-	-	-	-	<0.037	<0.037	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.08	<0.016	<0.016	<0.4	-	-	-	-
SB2_TP02	16 Mar 2023	SB2 TP02 0.2	0.1 - 0.2	3209697	Normal	-	-	-	-	-	0.139	0.137	0.097	<0.011	0.058	0.022	<0.011	0.011	<0.011	0.036	0.070	0.096	0.038	0.061	0.067	0.014	0.170	0.011	0.061	<0.06	0.135	0.158	1.1	<40	<80	<20	<20
SB2_TP02	16 Mar 2023	SB2 TP02 0.7	0.6 - 0.7	3209697	Normal	-	-	-	-	-	0.73	0.73	0.53	<0.013	0.31	0.114	<0.013	0.013	<0.013	0.068	0.34	0.52	0.20	0.36	0.32	0.063	0.51	<0.013	0.35	<0.07	0.21	0.66	4.6	<40	<80	<20	<20
SB2_TP03	16 Mar 2023	SB2 TP03 0.2	0.1 - 0.2	3209697	Normal	-	-	-	-	-	0.48	0.48	0.36	<0.013	0.22	0.085	<0.013	<0.013	0.035	0.021	0.194	0.33	0.128	0.28	0.194	0.052	0.29	<0.013	0.26	<0.07	0.054	0.31	2.8	53	<80	<20	<20
SB2_TP03	16 Mar 2023	SB2 TP03 0.5	0.4 - 0.5	3209697	Normal	-	-	-	-	-	0.62	0.61	0.49	<0.013	0.30	0.100	<0.013	<0.013	0.056	0.035	0.33	0.42	0.172	0.35	0.32	0.060	0.50	<0.013	0.34	<0.07	0.094	0.61	4.2	<40	<80	<20	<20
SB4_TP01	20 Mar 2023	SB4 TP01 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	0.143	0.142	0.117	<0.015	0.058	0.024	<0.015	<0.015	<0.015	<0.015	0.084	0.096	0.047	0.055	0.080	0.014	0.171	<0.015	0.060	<0.08	0.024	0.128	1.0	<40	<80	<20	<20
SB4_TP01	20 Mar 2023	SB4 TP01 0.5	0.4 - 0.5	3211645	Normal	-	-	-	-	-	<0.040	<0.039	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.09	<0.017	<0.017	<0.4	<40	<90	<30	<20
SB4_TP02	20 Mar 2023	SB4 TP02 0.2	0.1 - 0.2	3211645	Normal	-	-	-	-	-	<0.038	<0.038	0.025	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	0.016	0.018	<0.016	<0.016	<0.016	<0.016	0.035	<0.016	<0.016	<0.08	<0.016	0.025	<0.4	88	98	<30	<20
SB4_TP02	20 Mar 2023	SB4 TP02 0.5	0.4 - 0.5	3211645	Normal	-	-	-	-	-	<0.040	<0.040	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.09	<0.017	<0.017	<0.4	<40	<90	<30	<20
SB4_TP03	20 Mar 2023	SB4 TP03 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	0.043	0.042	0.034	<0.014	0.018	<0.014	<0.014	<0.014	<0.014	<0.014	0.027	0.028	<0.014	0.015	0.027	<0.014	0.062	<0.014	0.016	<0.07	0.020	0.042	<0.4	48	<80	<20	<20
SB4_TP03	20 Mar 2023	SB4 TP03 0.4	0.3 - 0.4	3211645	Normal	-	-	-	-	-	0.199	0.196	0.160	<0.015	0.074	0.029	<0.015	<0.015	<0.015	0.021	0.150	0.136	0.063	0.069	0.153	<0.015	0.30	<0.015	0.078	<0.08	0.027	0.27	1.5	<40	<90	<30	<20
SB8_TP01	12 Sep 2023	SB08 TP01 0.2	0.2 - 0.2	3362681	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
SB8_TP01	12 Sep 2023	SB08 TP01 0.5	0.5 - 0.5	3362681	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<40	<90	<30	<20
WDH TP02	12 Sep 2023	DUP J2		3362681	Field_D	-	-	-	-	-	0.37	0.37	0.29	<0.012	0.153	0.057	<0.012	<0.012	<0.012	0.021	0.20	0.25	0.131	0.179	0.165	0.034	0.36	<0.012	0.178	<0.06	0.047	0.35	2.4	-	-	-	-

						BTEX in VOC Soils by Headspace GC-MS					Haloaromatics in VOC Soils by Headspace GC-MS									
						Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3,5-Trichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL																				
Location Code	Date	Field ID	Depth	Lab Report Number	Sample Type															
	12 Jun 2023	B16 TP01 0.5	0.4 - 0.5	3299078	Norma	<0.19	<0.3	<0.3	<0.3	<0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	12 Jun 2023	B16 TP02 0.1	0 - 0.1	3299078	Norma	<0.15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	12 Jun 2023	B16 TP02 0.5	0.4 - 0.5	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	12 Jun 2023	B74 HA02 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	12 Jun 2023	B74 HA02 0.5	0.4 - 0.5	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	12 Jun 2023	HSP SED 01 0.	0 - 0.1	3299078	Norma	<0.12	0.17	<0.12	<0.12	<0.3	-	-	-	-	-	-	-	-	-	-
	13 Jun 2023	WWTP DIS-SED 0.1	0 - 0.1	3299078	Norma	<0.04	<0.04	<0.04	<0.04	<0.08	-	-	-	-	-	-	-	-	-	-
	13 Jun 2023	WWTP SEEPAGE-SED 0.	0 - 0.1	3299078	Norma	<0.04	<0.04	<0.04	<0.04	<0.08	-	-	-	-	-	-	-	-	-	-
	14 Jun 2023	B66 HA01		3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	14 Jun 2023	B66 HA02		3299078	Norma	<0.4	<0.4	<0.4	<0.4	<0.8	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	19 Jun 2023	B74 HA01 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	19 Jun 2023	B74 HA01 0.5	0.4 - 0.5	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	23 Jun 2023	HSP SED 01 0.	0.2 - 0.3	3299078	Norma	<0.03	<0.03	<0.03	<0.03	<0.06	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 01 0.0	0 - 0.1	3299078	Norma	<0.06	<0.06	<0.06	<0.06	<0.11	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 02 0.	0.2 - 0.3	3299078	Norma	<0.11	<0.11	<0.11	<0.11	<0.3	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 02 0.0	0 - 0.1	3299078	Norma	<0.03	<0.03	<0.03	<0.03	<0.06	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 03 0.	0.2 - 0.3	3299078	Norma	<0.04	<0.04	<0.04	<0.04	<0.07	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 03 0.0	0 - 0.1	3299078	Norma	<0.06	<0.06	<0.06	<0.06	<0.12	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 04 0.	0.2 - 0.3	3299078	Norma	<0.11	<0.11	<0.11	<0.11	<0.3	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 04 0.0	0 - 0.1	3299078	Norma	<0.13	<0.13	<0.13	<0.13	<0.3	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 05 0.	0.2 - 0.3	3299078	Norma	<0.08	<0.08	<0.08	<0.08	<0.15	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	HSP SED 05 0.0	0 - 0.1	3299078	Norma	<0.04	<0.04	<0.04	<0.04	<0.07	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 01 0.2	0.2 - 0.3	3299078	Norma	<0.04	<0.04	<0.04	<0.04	<0.08	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 01 0.0	0 - 0.1	3299078	Norma	<0.04	<0.04	<0.04	<0.04	<0.08	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 02 0.2	0.2 - 0.3	3299078	Norma	<0.11	<0.11	<0.11	<0.11	<0.3	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 02 0.0	0 - 0.1	3299078	Norma	<0.11	<0.11	<0.11	<0.11	<0.3	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 03 0.2	0.2 - 0.3	3299078	Norma	<0.06	<0.06	<0.06	<0.06	<0.11	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 03 0.0	0 - 0.1	3299078	Norma	<0.05	<0.05	<0.05	<0.05	<0.09	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 04 0.2	0.2 - 0.3	3299078	Norma	<0.04	<0.04	<0.04	<0.04	<0.07	-	-	-	-	-	-	-	-	-	-
	23 Jun 2023	STR SED 04 0.0	0 - 0.1	3299078	Norma	<0.13	<0.13	<0.13	<0.13	<0.3	-	-	-	-	-	-	-	-	-	-
B16 TP01	12 Jun 2023	B16 TP01 0.1	0 - 0.1	3299078	Norma	<0.16	<0.3	<0.3	<0.3	<0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B16 TP04	16 Mar 2023	B16 TP04 0.1	0 - 0.1	3209697	Norma	<0.15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B16 TP06	16 Mar 2023	B16 TP06 0.1	0 - 0.1	3209697	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B16 TP07	17 Mar 2023	B16 TP07 0.1	0 - 0.1	3209697	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B16 TP08	17 Mar 2023	B16 TP08 0.1	0 - 0.1	3209697	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B16 TP09	16 Mar 2023	B16 TP09 0.1	0 - 0.1	3209697	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B63 TP03	21 Mar 2023	B63 TP03 0.1	0 - 0.1	3211645	Norma	<0.16	<0.3	<0.3	<0.3	<0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B63 TP04	21 Mar 2023	B63 TP04 0.2	0.1 - 0.2	3211645	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B71 TP01	14 Jun 2023	B71 TP01 0.10	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B71 TP01	14 Jun 2023	B71 TP01 0.50	0.4 - 0.5	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B73 TP01	20 Jun 2023	B73 TP01 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B73 TP01	20 Jun 2023	B73 TP01 0.5	0.4 - 0.5	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP01	23 Mar 2023	B74 TP01 0.1	0 - 0.1	3214115	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP02	23 Mar 2023	B74 TP02 0.1	0 - 0.1	3214115	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP02	23 Mar 2023	B74 TP02 1.9	1.8 - 1.9	3214115	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP02	23 Mar 2023	B74 TP02 2.1	2 - 2.1	3214115	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP03	23 Mar 2023	B74 TP03 0.1	0 - 0.1	3214115	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP03	23 Mar 2023	B74 TP03 2.2	2.1 - 2.2	3214115	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP04	21 Mar 2023	B74 TP04 0.1	0 - 0.1	3211645	Norma	<0.15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP04	21 Mar 2023	B74 TP04 2.1	2 - 2.1	3211645	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP06	20 Mar 2023	B74 TP06 0.1	0 - 0.1	3211645	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP06	20 Mar 2023	B74 TP06 2.5	2.4 - 2.5	3211645	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP07	20 Mar 2023	B74 TP07 0.1	0 - 0.1	3211645	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP08	16 Jun 2023	B74 TP08 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP08	16 Jun 2023	B74 TP08 0.5	0.4 - 0.5	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP08	16 Jun 2023	B74 TP08 2.1	2 - 2.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP09	16 Jun 2023	B74 TP09 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
B74 TP09	16 Jun 2023	B74 TP09 0.5	0.4 - 0.5	3299078	Norma	<0.4	<0.4	<0.4	<0.4	<0.7	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
B74 TP09	16 Jun 2023	B74 TP09 2.0	1.9 - 2	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
NW Fill TP0	11 Sep 2023	NW FILL TP04 0.	0.1 - 0.1	3362681	Norma	<1.8	<1.8	<1.8	<1.8	<4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
WWTP TP0	13 Jun 2023	WWTP TP01 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
WWTP TP0	13 Jun 2023	WWTP TP02 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
WWTP TP0	13 Jun 2023	WWTP TP03 0.1	0 - 0.1	3299078	Norma	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
WWTP TP0	13 Jun 2023	WWTP TP04 0.1	0 - 0.1	3299078	Norma	<0.16	<0.3	<0.3	<0.3	<0.4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

* A Non Detect Multiplier of 0.5 has been applied

						Haloethers in SVOC Soil Samples by GC-MS					Nitrogen containing compounds in SVOC Soil Sample				
						4-bromophenyl phenyl ether	4-chlorophenyl phenyl ether	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl) ether	N-Nitrosodiphenylamine + Diphenylamine	2,4-Dinitrotoluene	2,6-dinitrotoluene	Nitrobenzene	N-nitrosodi-n-propylamine
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg dry wt	mg/kg	mg/kg	mg/kg	mg/kg
EQL															
Location Code	**Date**	**Field ID**	**Depth**	**Lab Report Number**	**Sample Type**										
	12 Jun 2023	HSP SED 01 0.1	0 - 0.1	3299078	Normal	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<2	<2	<1.0	<2
	13 Jun 2023	WWTP DIS-SED 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<4	<1.0	<0.5	<0.8
	13 Jun 2023	WWTP SEEPAGE-SED 0.1	0 - 0.1	3299078	Normal	<0.7	<0.7	<0.7	<0.7	<0.7	<1.3	<7	<1.3	<0.7	<1.3
	14 Jun 2023	B66 HA01		3299078	Normal	<0.7	<0.7	<0.7	<0.7	<0.7	<1.4	<1.4	<1.4	<0.7	<1.4
	14 Jun 2023	B66 HA02		3299078	Normal	<0.8	<0.8	<0.8	<0.8	<0.8	<1.6	<1.6	<1.6	<0.8	<1.6
	23 Jun 2023	HSP SED 01 0.3	0.2 - 0.3	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<5	<1.0	<0.5	<0.9
	23 Jun 2023	HSP SED 01 0.05	0 - 0.1	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<6	<1.1	<0.6	<1.1
	23 Jun 2023	HSP SED 02 0.3	0.2 - 0.3	3299078	Normal	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<10	<1.9	<1.0	<1.9
	23 Jun 2023	HSP SED 02 0.05	0 - 0.1	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<5	<1.0	<0.5	<0.9
	23 Jun 2023	HSP SED 03 0.3	0.2 - 0.3	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<0.5	<1.0
	23 Jun 2023	HSP SED 03 0.05	0 - 0.1	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<6	<1.1	<0.6	<1.1
	23 Jun 2023	HSP SED 04 0.3	0.2 - 0.3	3299078	Normal	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<10	<2	<1.0	<2
	23 Jun 2023	HSP SED 04 0.05	0 - 0.1	3299078	Normal	<1.1	<1.1	<1.1	<1.1	<1.1	<3	<11	<3	<1.1	<3
	23 Jun 2023	HSP SED 05 0.3	0.2 - 0.3	3299078	Normal	<0.7	<0.7	<0.7	<0.7	<0.7	<1.4	<1.4	<1.4	<0.7	<1.4
	23 Jun 2023	HSP SED 05 0.05	0 - 0.1	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<1.1	<1.1	<0.6	<1.1
	23 Jun 2023	STR SED 01 0.3	0.2 - 0.3	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.2	<6	<1.2	<0.6	<1.2
	23 Jun 2023	STR SED 01 0.05	0 - 0.1	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.2	<6	<1.2	<0.6	<1.2
	23 Jun 2023	STR SED 02 0.3	0.2 - 0.3	3299078	Normal	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<10	<1.9	<1.0	<1.9
	23 Jun 2023	STR SED 02 0.05	0 - 0.1	3299078	Normal	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<10	<1.9	<1.0	<1.9
	23 Jun 2023	STR SED 03 0.3	0.2 - 0.3	3299078	Normal	<0.8	<0.8	<0.8	<0.8	<0.8	<1.6	<8	<1.6	<0.8	<1.6
	23 Jun 2023	STR SED 03 0.05	0 - 0.1	3299078	Normal	<0.7	<0.7	<0.7	<0.7	<0.7	<1.3	<7	<1.3	<0.7	<1.3
	23 Jun 2023	STR SED 04 0.3	0.2 - 0.3	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<6	<1.1	<0.6	<1.1
	23 Jun 2023	STR SED 04 0.05	0 - 0.1	3299078	Normal	<1.1	<1.1	<1.1	<1.1	<1.1	<3	<11	<3	<1.1	<3
	11 Sep 2023	NW FILL TP04 0.1		3362681	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
B26_TP01	19 Jun 2023	B26 TP01 0.1	0 - 0.1	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
B26_TP02	19 Jun 2023	B26 TP02 0.1	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
B26_TP02	19 Jun 2023	B26 TP02 0.5	0.4 - 0.5	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
B26_TP03	19 Jun 2023	B26 TP03 0.1	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
B26_TP03	19 Jun 2023	B26 TP03 0.5	0.4 - 0.5	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
B63_TP01	14 Jun 2023	B63 TP01 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.7	<1.0	<1.0	<0.5	<0.7
B67_HA01	14 Jun 2023	B67 HA01 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.7	<1.0	<1.0	<0.5	<0.7
B67_HA01	14 Jun 2023	B67 HA01 0.50	0.4 - 0.5	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
B67_HA02	14 Jun 2023	B67 HA02 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.7	<1.0	<1.0	<0.5	<0.7
B67_HA02	14 Jun 2023	B67 HA02 0.50	0.4 - 0.5	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<1.1	<1.1	<0.6	<1.1
B71_TP01	14 Jun 2023	B71 TP01 0.10	0 - 0.1	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
B71_TP01	14 Jun 2023	B71 TP01 0.50	0.4 - 0.5	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0
B71_TP02	14 Jun 2023	B71 TP02 0.10	0 - 0.1	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
B71_TP02	14 Jun 2023	B71 TP02 0.50	0.4 - 0.5	3299078	Normal	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<1.1	<1.1	<0.6	<1.1
HT_TP29	08 Jun 2023	HT TP 29 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
HT_TP29	08 Jun 2023	HT TP 29 0.50	0.4 - 0.5	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
HT_TP30	08 Jun 2023	HT TP 30 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
HT_TP30	08 Jun 2023	HT TP 30 0.50	0.4 - 0.5	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
HT_TP31	08 Jun 2023	HT TP 31 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.7	<1.0	<1.0	<0.5	<0.7
HT_TP31	08 Jun 2023	HT TP 31 0.50	0.4 - 0.5	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
NW_Fill_TP01	11 Sep 2023	NW FILL TP01 0.1	0.1 - 0.1	3362681	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0
NW_Fill_TP01	11 Sep 2023	NW FILL TP01 0.5	0.5 - 0.5	3362681	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0
NW_Fill_TP02	11 Sep 2023	NW FILL TP02 0.1	0.1 - 0.1	3362681	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
NW_Fill_TP03	11 Sep 2023	NW FILL TP03 0.1	0.1 - 0.1	3362681	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0
NW_Fill_TP03	11 Sep 2023	NW FILL TP03 0.5	0.5 - 0.5	3362681	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
NW_Fill_TP04	11 Sep 2023	NW FILL TP04 0.1	0.1 - 0.1	3362681	Normal	<1.6	<1.6	<1.6	<1.6	<1.6	<4	<4	<4	<1.6	<4
WWTP_TP01	13 Jun 2023	WWTP TP01 0.10	0 - 0.1	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
WWTP_TP01	13 Jun 2023	WWTP TP01 0.50	0.4 - 0.5	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
WWTP_TP02	13 Jun 2023	WWTP TP02 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.8	<1.0	<1.0	<0.5	<0.8
WWTP_TP02	13 Jun 2023	WWTP TP02 0.50	0.4 - 0.5	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0
WWTP_TP03	13 Jun 2023	WWTP TP03 0.10	0 - 0.1	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
WWTP_TP03	13 Jun 2023	WWTP TP03 0.50	0.4 - 0.5	3299078	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.9	<1.0	<1.0	<0.5	<0.9
WWTP_TP04	13 Jun 2023	WWTP TP04 0.10	0 - 0.1	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.7	<1.0	<1.0	<0.5	<0.7
WWTP_TP04	13 Jun 2023	WWTP TP04 0.50	0.4 - 0.5	3299078	Normal	<0.4	<0.5	<0.5	<0.5	<0.5	<0.7	<1.0	<1.0	<0.5	<0.7

	Organochlorine Pesticides in SVOC Soil Samples by																
Field ID	4,4'-DDE	a-BHC	Aldrin	b-BHC	d-BHC	4,4 DDD	4,4 DDT	Dieldrin	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg dry wt
HSP SED 01 0.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<1.0	<2	<2	<2	<2	<2	<1.0	<1.0	<1.0	<1.0
WWTP DIS-SED 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP SEEPAGE-SED 0.1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<1.3	<0.7	<1.3	<2	<1.3	<1.3	<1.3	<0.7	<0.7	<0.7	<0.7
B66 HA01	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<1.4	<0.7	<3	<3	<1.4	<1.4	<1.4	<0.7	<0.7	<0.7	<0.7
B66 HA02	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<1.6	<0.8	<4	<4	<1.6	<1.6	<1.6	<0.8	<0.8	<0.8	<0.8
HSP SED 01 0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
HSP SED 01 0.05	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<0.6	<1.1	<2	<1.1	<1.1	<1.1	<0.6	<0.6	<0.6	<0.6
HSP SED 02 0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<1.0	<1.9	<2	<1.9	<1.9	<1.9	<1.0	<1.0	<1.0	<1.0
HSP SED 02 0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
HSP SED 03 0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
HSP SED 03 0.05	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<0.6	<1.1	<2	<1.1	<1.1	<1.1	<0.6	<0.6	<0.6	<0.6
HSP SED 04 0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<1.0	<2	<2	<2	<2	<2	<1.0	<1.0	<1.0	<1.0
HSP SED 04 0.05	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<3	<1.1	<3	<3	<3	<3	<3	<1.1	<1.1	<1.1	<1.1
HSP SED 05 0.3	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<1.4	<0.7	<1.4	<2	<1.4	<1.4	<1.4	<0.7	<0.7	<0.7	<0.7
HSP SED 05 0.05	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<0.6	<1.1	<2	<1.1	<1.1	<1.1	<0.6	<0.6	<0.6	<0.6
STR SED 01 0.3	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.2	<0.6	<1.2	<2	<1.2	<1.2	<1.2	<0.6	<0.6	<0.6	<0.6
STR SED 01 0.05	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.2	<0.6	<1.2	<2	<1.2	<1.2	<1.2	<0.6	<0.6	<0.6	<0.6
STR SED 02 0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<1.0	<1.9	<2	<1.9	<1.9	<1.9	<1.0	<1.0	<1.0	<1.0
STR SED 02 0.05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<1.0	<1.9	<2	<1.9	<1.9	<1.9	<1.0	<1.0	<1.0	<1.0
STR SED 03 0.3	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<1.6	<0.8	<1.6	<2	<1.6	<1.6	<1.6	<0.8	<0.8	<0.8	<0.8
STR SED 03 0.05	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<1.3	<0.7	<1.3	<2	<1.3	<1.3	<1.3	<0.7	<0.7	<0.7	<0.7
STR SED 04 0.3	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<0.6	<1.1	<2	<1.1	<1.1	<1.1	<0.6	<0.6	<0.6	<0.6
STR SED 04 0.05	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<3	<1.1	<3	<3	<3	<3	<3	<1.1	<1.1	<1.1	<1.1
NW FILL TP04 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
B26 TP01 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
B26 TP02 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
B26 TP02 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
B26 TP03 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
B26 TP03 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
B63 TP01 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.7	<1.0	<0.5	<0.5	<0.5	<0.5
B67 HA01 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.7	<1.0	<0.5	<0.5	<0.5	<0.5
B67 HA01 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
B67 HA02 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.7	<1.0	<0.5	<0.5	<0.5	<0.5
B67 HA02 0.50	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<0.6	<1.1	<2	<1.1	<1.1	<1.1	<0.6	<0.6	<0.6	<0.6
B71 TP01 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.8	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
B71 TP01 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<2	<2	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
B71 TP02 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
B71 TP02 0.50	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<0.6	<1.1	<2	<1.1	<1.1	<1.1	<0.6	<0.6	<0.6	<0.6
HT TP 29 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
HT TP 29 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
HT TP 30 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
HT TP 30 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
HT TP 31 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.7	<1.0	<0.5	<0.5	<0.5	<0.5
HT TP 31 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
NW FILL TP01 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
NW FILL TP01 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
NW FILL TP02 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
NW FILL TP03 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
NW FILL TP03 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
NW FILL TP04 0.1	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<4	<1.6	<4	<4	<4	<4	<4	<1.6	<1.6	<1.6	<1.6
WWTP TP01 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.7	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP TP01 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP TP02 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.6	<2	<1.0	<0.8	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP TP02 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.9	<2	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP TP03 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.8	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP TP03 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	<2	<1.0	<0.9	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP TP04 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.4	<2	<1.0	<0.7	<1.0	<0.5	<0.5	<0.5	<0.5
WWTP TP04 0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<1.4	<2	<1.0	<0.7	<1.0	<0.5	<0.5	<0.5	<0.5

	Other compounds in SVOC Soil Samples by GC-MS				Other Halogenated compounds in SVOC Soil Samples b					
Field ID	Benzyl alcohol	Carbazole	Dibenzofuran	Isophorone	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobutadiene	Hexachloroethane
	mg/kg	mg/kg	ng/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
HSP SED 01 0.1	<10	<1.0	<1,000,000	<1.0	<1.0	<2	<2	<2	<2	<2
WWTP DIS-SED 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
WWTP SEEPAGE-SED 0.1	<10	<0.7	<700,000	<0.7	<0.7	<1.3	<1.3	<1.3	<1.3	<1.3
B66 HA01	<10	<0.7	<700,000	<0.7	<0.7	<1.4	<1.4	<1.4	<1.4	<1.4
B66 HA02	<10	<0.8	<800,000	<0.8	<0.8	<1.6	<1.6	<1.6	<1.6	<1.6
HSP SED 01 0.3	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
HSP SED 01 0.05	<10	<0.6	<600,000	<0.6	<0.6	<1.1	<1.1	<1.1	<1.1	<1.1
HSP SED 02 0.3	<10	<1.0	<1,000,000	<1.0	<1.0	<1.9	<1.9	<1.9	<1.9	<1.9
HSP SED 02 0.05	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
HSP SED 03 0.3	<10	<0.5	<500,000	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
HSP SED 03 0.05	<10	<0.6	<600,000	<0.6	<0.6	<1.1	<1.1	<1.1	<1.1	<1.1
HSP SED 04 0.3	<10	<1.0	<1,000,000	<1.0	<1.0	<2	<2	<2	<2	<2
HSP SED 04 0.05	<11	<1.1	<1,100,000	<1.1	<1.1	<3	<3	<3	<3	<3
HSP SED 05 0.3	<10	<0.7	<700,000	<0.7	<0.7	<1.4	<1.4	<1.4	<1.4	<1.4
HSP SED 05 0.05	<10	<0.6	<600,000	<0.6	<0.6	<1.1	<1.1	<1.1	<1.1	<1.1
STR SED 01 0.3	<10	<0.6	<600,000	<0.6	<0.6	<1.2	<1.2	<1.2	<1.2	<1.2
STR SED 01 0.05	<10	<0.6	<600,000	<0.6	<0.6	<1.2	<1.2	<1.2	<1.2	<1.2
STR SED 02 0.3	<10	<1.0	<1,000,000	<1.0	<1.0	<1.9	<1.9	<1.9	<1.9	<1.9
STR SED 02 0.05	<10	<1.0	<1,000,000	<1.0	<1.0	<1.9	<1.9	<1.9	<1.9	<1.9
STR SED 03 0.3	<10	<0.8	<800,000	<0.8	<0.8	<1.6	<1.6	<1.6	<1.6	<1.6
STR SED 03 0.05	<10	<0.7	<700,000	<0.7	<0.7	<1.3	<1.3	<1.3	<1.3	<1.3
STR SED 04 0.3	<10	<0.6	<600,000	<0.6	<0.6	<1.1	<1.1	<1.1	<1.1	<1.1
STR SED 04 0.05	<11	<1.1	<1,100,000	<1.1	<1.1	<3	<3	<3	<3	<3
NW FILL TP04 0.1	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
B26 TP01 0.1	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
B26 TP02 0.1	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
B26 TP02 0.5	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
B26 TP03 0.1	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
B26 TP03 0.5	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
B63 TP01 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.7	<0.7	<0.7	<0.7	<0.7
B67 HA01 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.7	<0.7	<0.7	<0.7	<0.7
B67 HA01 0.50	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
B67 HA02 0.10	<10	5.2	5,900,000	<0.5	<0.5	<0.7	<0.7	<0.7	<0.7	<0.7
B67 HA02 0.50	<10	<0.6	<600,000	<0.6	<0.6	<1.1	<1.1	<1.1	<1.1	<1.1
B71 TP01 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
B71 TP01 0.50	<10	<0.5	<500,000	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
B71 TP02 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
B71 TP02 0.50	<10	<0.6	<600,000	<0.6	<0.6	<1.1	<1.1	<1.1	<1.1	<1.1
HT TP 29 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
HT TP 29 0.50	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
HT TP 30 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
HT TP 30 0.50	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
HT TP 31 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.7	<0.7	<0.7	<0.7	<0.7
HT TP 31 0.50	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
NW FILL TP01 0.1	<10	<0.5	<500,000	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP01 0.5	<10	<0.5	<500,000	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP02 0.1	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
NW FILL TP03 0.1	<10	<0.5	<500,000	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP03 0.5	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
NW FILL TP04 0.1	<16	<1.6	<1,600,000	<1.6	<1.6	<4	<4	<4	<4	<4
WWTP TP01 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
WWTP TP01 0.50	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
WWTP TP02 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8
WWTP TP02 0.50	<10	<0.5	<500,000	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP03 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
WWTP TP03 0.50	<10	<0.5	<500,000	<0.5	<0.5	<0.9	<0.9	<0.9	<0.9	<0.9
WWTP TP04 0.10	<10	<0.5	<500,000	<0.5	<0.5	<0.7	<0.7	<0.7	<0.7	<0.7
WWTP TP04 0.50	<10	<0.5	<500,000	<0.5	<0.5	<0.7	<0.7	<0.7	<0.7	<0.7

	Phenols in SVOC Soil Samples by GC-MS										
Field ID	2-Chlorophenol	Phenol	2,4-Dichlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	2-Methylphenol (o-Cresol)	2,4,6-Trichlorophenol	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	4-Chloro-3-methylphenol	Pentachlorophenol
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
HSP SED 01 0.1	<1.0	<2	<1.0	<5	<2	<1.0	<2	<3	<3	<5	<30
WWTP DIS-SED 0.10	<1.0	<1.0	<1.0	<5	<4	<1.0	<4	<3	<3	<5	<30
WWTP SEEPAGE-SED 0.1	<1.0	<1.3	<1.3	<7	<7	<1.0	<7	<3	<3	<5	<30
B66 HA01	<1.0	<1.4	<1.0	<5	<1.4	<1.0	<1.4	<3	<3	<5	<30
B66 HA02	<1.0	<1.6	<1.0	<5	<1.6	<1.0	<1.6	<3	<3	<5	<30
HSP SED 01 0.3	<1.0	<1.0	<1.0	<5	<5	<1.0	<5	<3	<3	<5	<30
HSP SED 01 0.05	<1.0	<1.1	<1.1	<6	<6	<1.0	<6	<3	<3	<5	<30
HSP SED 02 0.3	<1.0	<1.9	<1.9	<10	<10	<1.0	<10	<3	<3	<5	<30
HSP SED 02 0.05	<1.0	<1.0	<1.0	<5	<5	<1.0	<5	<3	<3	<5	<30
HSP SED 03 0.3	<1.0	<1.0	<1.0	<5	<5	<1.0	<5	<3	<3	<5	<30
HSP SED 03 0.05	<1.0	<1.1	<1.1	<6	<6	<1.0	<6	<3	<3	<5	<30
HSP SED 04 0.3	<1.0	<2	<2	<10	<10	<1.0	<10	<3	<3	<5	<30
HSP SED 04 0.05	<1.1	<3	<3	<11	<11	<1.1	<11	<3	<3	<5	<30
HSP SED 05 0.3	<1.0	<1.4	<1.0	<5	<1.4	<1.0	<1.4	<3	<3	<5	<30
HSP SED 05 0.05	<1.0	<1.1	<1.0	<5	<1.1	<1.0	<1.1	<3	<3	<5	<30
STR SED 01 0.3	<1.0	<1.2	<1.2	<6	<6	<1.0	<6	<3	<3	<5	<30
STR SED 01 0.05	<1.0	<1.2	<1.2	<6	<6	<1.0	<6	<3	<3	<5	<30
STR SED 02 0.3	<1.0	<1.9	<1.9	<10	<10	<1.0	<10	<3	<3	<5	<30
STR SED 02 0.05	<1.0	<1.9	<1.9	<10	<10	<1.0	<10	<3	<3	<5	<30
STR SED 03 0.3	<1.0	<1.6	<1.6	<8	<8	<1.0	<8	<3	<3	<5	<30
STR SED 03 0.05	<1.0	<1.3	<1.3	<7	<7	<1.0	<7	<3	<3	<5	<30
STR SED 04 0.3	<1.0	<1.1	<1.1	<6	<6	<1.0	<6	<3	<3	<5	<30
STR SED 04 0.05	<1.1	<3	<3	<11	<11	<1.1	<11	<3	<3	<5	<30
NW FILL TP04 0.1	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B26 TP01 0.1	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B26 TP02 0.1	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B26 TP02 0.5	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B26 TP03 0.1	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B26 TP03 0.5	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B63 TP01 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B67 HA01 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B67 HA01 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B67 HA02 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B67 HA02 0.50	<1.0	<1.1	<1.0	<5	<1.1	<1.0	<1.1	<3	<3	<5	<30
B71 TP01 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B71 TP01 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B71 TP02 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
B71 TP02 0.50	<1.0	<1.1	<1.0	<5	<1.1	<1.0	<1.1	<3	<3	<5	<30
HT TP 29 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
HT TP 29 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
HT TP 30 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
HT TP 30 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
HT TP 31 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
HT TP 31 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
NW FILL TP01 0.1	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
NW FILL TP01 0.5	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
NW FILL TP02 0.1	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
NW FILL TP03 0.1	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
NW FILL TP03 0.5	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
NW FILL TP04 0.1	<1.6	<4	<1.6	<5	<4	<1.6	<4	<4	<3	<5	<40
WWTP TP01 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
WWTP TP01 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
WWTP TP02 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
WWTP TP02 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
WWTP TP03 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
WWTP TP03 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
WWTP TP04 0.10	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30
WWTP TP04 0.50	<1.0	<1.0	<1.0	<5	<1.0	<1.0	<1.0	<3	<3	<5	<30

	Plasticisers in SVOC Soil Samples by GC-MS						
Field ID	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Di(2-ethylhexyl)adipate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
HSP SED 01 0.1	<5	<2	<1.0	<2	<2	<2	<2
WWTP DIS-SED 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP SEEPAGE-SED 0.1	<5	<1.3	<1.0	<1.3	<1.3	<1.3	<1.3
B66 HA01	<5	<1.4	<1.0	<1.4	<1.4	<1.4	<1.4
B66 HA02	27	<1.6	<1.0	<1.6	<1.6	<1.6	<1.6
HSP SED 01 0.3	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HSP SED 01 0.05	<5	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1
HSP SED 02 0.3	<5	<1.9	<1.0	<1.9	<1.9	<1.9	<1.9
HSP SED 02 0.05	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HSP SED 03 0.3	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HSP SED 03 0.05	<5	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1
HSP SED 04 0.3	6	<2	<1.0	<2	<2	<2	<2
HSP SED 04 0.05	<5	<3	<1.1	<3	<3	<3	<3
HSP SED 05 0.3	<5	<1.4	<1.0	<1.4	<1.4	<1.4	<1.4
HSP SED 05 0.05	<5	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1
STR SED 01 0.3	<5	<1.2	<1.0	<1.2	<1.2	<1.2	<1.2
STR SED 01 0.05	<5	<1.2	<1.0	<1.2	<1.2	<1.2	<1.2
STR SED 02 0.3	<5	<1.9	<1.0	<1.9	<1.9	<1.9	<1.9
STR SED 02 0.05	<5	<1.9	<1.0	<1.9	<1.9	<1.9	<1.9
STR SED 03 0.3	<5	<1.6	<1.0	<1.6	<1.6	<1.6	<1.6
STR SED 03 0.05	<5	<1.3	<1.0	<1.3	<1.3	<1.3	<1.3
STR SED 04 0.3	<5	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1
STR SED 04 0.05	<5	<3	<1.1	<3	<3	<3	<3
NW FILL TP04 0.1	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B26 TP01 0.1	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B26 TP02 0.1	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B26 TP02 0.5	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B26 TP03 0.1	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B26 TP03 0.5	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B63 TP01 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B67 HA01 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B67 HA01 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B67 HA02 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B67 HA02 0.50	<5	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1
B71 TP01 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B71 TP01 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B71 TP02 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B71 TP02 0.50	<5	<1.1	<1.0	<1.1	<1.1	<1.1	<1.1
HT TP 29 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HT TP 29 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HT TP 30 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HT TP 30 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HT TP 31 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HT TP 31 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP01 0.1	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP01 0.5	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP02 0.1	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP03 0.1	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP03 0.5	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NW FILL TP04 0.1	<7	<4	<1.6	<4	<4	<4	<4
WWTP TP01 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP01 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP02 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP02 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP03 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP03 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP04 0.10	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
WWTP TP04 0.50	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

	Polycyclic Aromatic Hydrocarbons in SVOC Soil Samp																			
Field ID	1&2-Chloronaphthalene	Benzo[a]pyrene Potency Equivalency Factor (PEF) NES	Benzo[a]pyrene Toxic Equivalence (TEF)	Benzo[b]fluoranthene + Benzo[j]fluoranthene	2-methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
HSP SED 01 0.1	<0.7	<2.3	<2.3	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
WWTP DIS-SED 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP SEEPAGE-SED 0.1	<0.5	<1.5	<1.5	0.8	<0.5	<0.5	<0.5	<0.5	0.6	0.7	<0.7	0.7	<0.5	<0.7	0.9	<0.5	0.7	<0.5	<0.5	0.9
B66 HA01	<0.5	<1.7	<1.7	<0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.7	<0.7	0.8	<0.5	<0.7	<0.5	<0.5	0.8	<0.5	<0.5	<0.5
B66 HA02	<0.6	4.8	4.8	4.7	<0.5	<0.5	<0.5	<0.5	1.9	3.2	<0.8	8.2	2.3	<0.8	2.9	<0.5	2.8	<0.5	0.7	8.6
HSP SED 01 0.3	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HSP SED 01 0.05	<0.5	<1.3	<1.3	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
HSP SED 02 0.3	<0.7	<2.3	<2.3	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
HSP SED 02 0.05	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HSP SED 03 0.3	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HSP SED 03 0.05	<0.5	<1.4	<1.4	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
HSP SED 04 0.3	<0.7	<2.3	<2.3	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
HSP SED 04 0.05	<0.8	<2.6	<2.6	<1.1	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<1.1	<1.1	<0.6	<1.1	<0.6	<0.6	<1.1	<0.6	<0.6	<0.6
HSP SED 05 0.3	<0.5	<1.7	<1.7	<0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.7	<0.7	<0.7	<0.5	<0.7	<0.5	<0.5	<0.7	<0.5	<0.5	<0.5
HSP SED 05 0.05	<0.5	<1.3	<1.3	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
STR SED 01 0.3	<0.5	<1.5	<1.4	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
STR SED 01 0.05	<0.5	<1.4	<1.4	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
STR SED 02 0.3	<0.7	<2.2	<2.2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
STR SED 02 0.05	<0.7	<2.2	<2.2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5
STR SED 03 0.3	<0.6	<1.9	<1.9	<0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.5	<0.5	<0.8	<0.5	<0.5	<0.5
STR SED 03 0.05	<0.5	<1.6	<1.6	<0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.7	<0.7	<0.7	<0.5	<0.7	<0.5	<0.5	<0.7	<0.5	<0.5	<0.5
STR SED 04 0.3	<0.5	<1.3	<1.3	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
STR SED 04 0.05	<0.8	<2.6	<2.6	<1.1	<0.6	<0.6	<0.6	<0.6	<0.6	<1.1	<1.1	<1.1	<0.6	<1.1	<0.6	<0.6	<1.1	<0.6	<0.6	<0.6
NW FILL TP04 0.1	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B26 TP01 0.1	<0.5	<1.3	<1.3	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5
B26 TP02 0.1	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B26 TP02 0.5	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B26 TP03 0.1	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B26 TP03 0.5	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B63 TP01 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B67 HA01 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B67 HA01 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B67 HA02 0.10	<0.5	52	51	38	0.6	12.5	0.7	36	39	35	16	16.5	31	4.7	102	13.6	19.3	<0.5	79	85
B67 HA02 0.50	<0.5	<1.3	<1.3	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
B71 TP01 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B71 TP01 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B71 TP02 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
B71 TP02 0.50	<0.5	<1.3	<1.3	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.6	<0.6	<0.5	<0.6	<0.5	<0.5	<0.6	<0.5	<0.5	<0.5
HT TP 29 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.5	<0.5	<0.5	<0.5
HT TP 29 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HT TP 30 0.10	<0.5	2.1	2.1	1.3	<0.5	<0.5	<0.5	<0.5	1.0	1.1	0.6	1.0	1.2	0.6	2.6	<0.5	1.2	<0.5	1.1	2.3
HT TP 30 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HT TP 31 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HT TP 31 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NW FILL TP01 0.1	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NW FILL TP01 0.5	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NW FILL TP02 0.1	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NW FILL TP03 0.1	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NW FILL TP03 0.5	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
NW FILL TP04 0.1	<1.1	<3.7	<3.6	<1.6	<0.8	<0.8	<0.8	<0.8	<0.8	<1.6	<1.6	<1.6	<0.8	<1.6	<0.8	<0.8	<1.6	<0.8	<0.8	<0.8
WWTP TP01 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP TP01 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP TP02 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP TP02 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP TP03 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP TP03 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP TP04 0.10	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
WWTP TP04 0.50	<0.5	<1.3	<1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Location Code	Date	Field ID	Depth	Lab Report Number	Sample Type
	29 Mar 2023	TRF TP01 0.1		322150	Normal
	29 Mar 2023	TRF TP01 0.5		322150	Normal
	29 Mar 2023	TRF TP02 0.1		322150	Normal
	29 Mar 2023	TRF TP03 0.1		322150	Normal
	29 Mar 2023	TRF TP03 0.5		322150	Normal
	12 Jun 202	B59 TP02 0.	0 - 0.1	329907	Normal
	12 Jun 202	B59 TP02 0.	0.4 - 0.5	329907	Normal
	12 Jun 202	B59 TP03 0.	0 - 0.1	329907	Normal
	12 Jun 202	COMP A 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP A 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	COMP B 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP B 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	COMP C 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP C 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	COMP D 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP D 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	COMP E 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP E 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	COMP F 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP F 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	COMP G 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP G 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	COMP H 0.1	0 - 0.1	329907	Normal
	12 Jun 202	COMP H 0.5	0.4 - 0.5	329907	Normal
	12 Jun 202	HSP SED 01 0.	0 - 0.1	329907	Normal
	14 Jun 202	DIP HA01 0.10	0 - 0.1	329907	Normal
	14 Jun 202	DIP HA02 0.10	0 - 0.1	329907	Normal
	14 Jun 202	DIP HA03 0.10	0 - 0.1	329907	Normal
	23 Jun 202	HSP SED 01 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	HSP SED 01 0.0	0 - 0.1	329907	Normal
	23 Jun 202	HSP SED 02 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	HSP SED 02 0.0	0 - 0.1	329907	Normal
	23 Jun 202	HSP SED 03 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	HSP SED 03 0.0	0 - 0.1	329907	Normal
	23 Jun 202	HSP SED 04 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	HSP SED 04 0.0	0 - 0.1	329907	Normal
	23 Jun 202	HSP SED 05 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	HSP SED 05 0.0	0 - 0.1	329907	Normal
	23 Jun 202	STR SED 01 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	STR SED 01 0.0	0 - 0.1	329907	Normal
	23 Jun 202	STR SED 02 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	STR SED 02 0.0	0 - 0.1	329907	Normal
	23 Jun 202	STR SED 03 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	STR SED 03 0.0	0 - 0.1	329907	Normal
	23 Jun 202	STR SED 04 0.3	0.2 - 0.3	329907	Normal
	23 Jun 202	STR SED 04 0.0	0 - 0.1	329907	Normal
B34_TP01	07 Jun 202	B34 TP 01 0.1	0 - 0.1	329907	Normal
B34_TP01	07 Jun 202	B34 TP 01 0.5	0.4 - 0.5	329907	Normal
B34_TP02	07 Jun 202	B34 TP 02 0.1	0 - 0.1	329907	Normal
B34_TP02	07 Jun 202	B34 TP 02 0.5	0.4 - 0.5	329907	Normal
B34_TP03	07 Jun 202	B34 TP 03 0.1	0 - 0.1	329907	Normal
B34_TP03	07 Jun 202	B34 TP 03 0.5	0.4 - 0.5	329907	Normal
B34_TP04	07 Jun 202	B34 TP 04 0.1	0 - 0.1	329907	Normal
B34_TP04	07 Jun 202	B34 TP 04 0.5	0.4 - 0.5	329907	Normal
B34_TP05	07 Jun 202	B34 TP 05 0.1	0 - 0.1	329907	Normal
B34_TP05	07 Jun 202	B34 TP 05 0.5	0.4 - 0.5	329907	Normal
B34_TP06	07 Jun 202	B34 TP 06 0.1	0 - 0.1	329907	Normal
B34_TP06	07 Jun 202	B34 TP 06 0.5	0.4 - 0.5	329907	Normal
B34_TP07	07 Jun 202	B34 TP 07 0.1	0 - 0.1	329907	Normal
B34_TP07	07 Jun 202	B34 TP 07 0.5	0.4 - 0.5	329907	Normal
B35_HA01	12 Jun 202	B35 HA01 0.1	0 - 0.1	329907	Normal
B35_HA01	12 Jun 202	B35 HA01 0.5	0.4 - 0.5	329907	Normal
B35_HA04	12 Jun 202	B35 HA04 0.1	0 - 0.1	329907	Normal
B35_TP01	07 Jun 202	B35 TP 01 0.1	0 - 0.1	329907	Normal
B35_TP01	07 Jun 202	B35 TP 01 0.5	0.4 - 0.5	329907	Normal
B35_TP02	07 Jun 202	B35 TP 02 0.1	0 - 0.1	329907	Normal
B35_TP02	07 Jun 202	B35 TP 02 0.5	0.4 - 0.5	329907	Normal
B35_TP03	07 Jun 202	B35 TP 03 0.1	0 - 0.1	329907	Normal
B35_TP03	07 Jun 202	B35 TP 03 0.5	0.4 - 0.5	329907	Normal
B35_TP04	07 Jun 202	B35 TP 04 0.1	0 - 0.1	329907	Normal
B35_TP04	07 Jun 202	B35 TP 04 0.5	0.4 - 0.5	329907	Normal
B35_TP05	07 Jun 202	B35 TP 05 0.1	0 - 0.1	329907	Normal
B35_TP05	07 Jun 202	B35 TP 05 0.5	0.4 - 0.5	329907	Normal
B59_TP01	23 Mar 2023	B59 TP01 0.	0 - 0.1	321411	Normal
B59_TP01	23 Mar 2023	B59 TP01 0.	0.5 - 0.6	321411	Normal
B59_TP04	14 Jun 202	B59 TP04 0.1	0 - 0.1	329907	Normal
B59_TP04	14 Jun 202	B59 TP04 0.5	0.4 - 0.5	329907	Normal
B59_TP07	23 Mar 2023	B59 TP07 0.	0 - 0.1	321411	Normal
BWL_TP01	08 Jun 202	BWL TP 01 0.1	0 - 0.1	329907	Normal
BWL_TP01	08 Jun 202	BWL TP 01 0.5	0.4 - 0.5	329907	Normal
BWL_TP02	08 Jun 202	BWL TP 02 0.1	0 - 0.1	329907	Normal
BWL_TP03	08 Jun 202	BWL TP 03 0.1	0 - 0.1	329907	Normal
BWL_TP03	08 Jun 202	BWL TP 03 0.5	0.4 - 0.5	329907	Normal
BWL_TP04	08 Jun 202	BWL TP 04 0.1	0 - 0.1	329907	Normal
BWL_TP05	08 Jun 202	BWL TP 05 0.1	0 - 0.1	329907	Normal
BWL_TP05	08 Jun 202	BWL TP 05 0.5	0.4 - 0.5	329907	Normal
BWL_TP06	08 Jun 202	BWL TP 06 0.1	0 - 0.1	329907	Normal
DIP_TP01	17 Mar 2023	DIP TP01 0.1	0.1 - 0.3	320689	Normal
DIP_TP02	17 Mar 2023	DIP TP02 0.1	0.1 - 0.3	320689	Normal
DIP_TP03	17 Mar 2023	DIP TP03 0.1	0.1 - 0.3	320689	Normal
HT_CompC3	09 Jun 202	HT COMPC3 0.10	0 - 0.1	329907	Normal
HT_CompE2	09 Jun 202	HT COMPE2 0.10	0 - 0.1	329907	Normal
HT_CompE4	09 Jun 202	HT COMPE4 0.10	0 - 0.1	329907	Normal
HT_TP25	17 Mar 2023	HT TP25 0.1	0.1 - 0.2	320689	Normal
HT_TP27	17 Mar 2023	HT TP27 0.1	0 - 0.1	320689	Normal
HT_TP28	17 Mar 2023	HT TP28 0.1	0 - 0.1	320689	Normal

Location Code	Date	Field ID	Depth	Lab Report Number	Sample Type	Total TEQ I-TEQ1 (zero)	Total TEQ I-TEQ2 (0.5 LOR)	Total TEQ I-TEQ3 (LOR)	Total TEQ WHO-TEQ1 (zero)	Total TEQ WHO-TEQ2 (0.5 LOR)	Total TEQ WHO-TEQ3 (LOR)	1234678-HpCDD	1234678-HpCDF	1234789-HpCDF	123478-HxCDD	123478-HxCDF	123678-HxCDD	123678-HxCDF	123789-HxCDD	123789-HxCDF	2378-TCDD	12378-PeCDD	12378-PeCDF	234678-HxCDF	23478-PeCDF	2378-TCDF	OCDD	OCDF
						PCDD/Fs																						
						ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)	ng/kg (dw)
EQL												10	10	10	10	10	10	10	10	10	2	10	10	10	10	2	20	20
	29 Jun 2023	SB 01 TP 01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	SB 01 TP 01 0.5	0.4 - 0.5	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	SB 02 TP 01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	SB 05 TP 01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	SB 05 TP 01 0.5	0.4 - 0.5	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	SB 06 TP 01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	SB 07 TP 01 0.1	0 - 0.1	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	SB 07 TP 01 0.5	0.4 - 0.5	3299078	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Jun 2023	Trip A		23-27152	Interlab_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	07 Jul 2023	B67 HA01 0.10 [3299078.227]		3379481	Normal	0.00	10	20	0.00	11	23	<20	<10	<10	<10	<10	<10	<10	<10	<10	<2.0	<10	<10	<10	<10	<2.0	<100	<20
	07 Jul 2023	B67 HA02 0.10 [3299078.229]		3379481	Normal	0.00	12	24	0.00	13	27	<50	<10	<10	<10	<10	<10	<10	<10	<10	<5.0	<10	<10	<10	<10	<5.0	<200	<20
SB2_TP02	16 Mar 2023	SB2 TP02 0.2	0.1 - 0.2	3209697	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB2_TP03	16 Mar 2023	SB2 TP03 0.2	0.1 - 0.2	3209697	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB4_TP01	20 Mar 2023	SB4 TP01 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB4_TP02	20 Mar 2023	SB4 TP02 0.2	0.1 - 0.2	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB4_TP03	20 Mar 2023	SB4 TP03 0.1	0 - 0.1	3211645	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB8_TP01	12 Sep 2023	SB08 TP01 0.2	0.2 - 0.2	3362681	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB8_TP01	12 Sep 2023	SB08 TP01 0.5	0.5 - 0.5	3362681	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Mono-Ortho PCB Toxic Equivalence (TEF)	Non-Ortho PCB Toxic Equivalence (TEF)	PCB-110	PCB-121	PCB-128	PCB-141	PCB-149	PCB-151	PCB-159	PCB-170	PCB-18	PCB-194	PCB-206	PCB-31	PCB-44	PCB-49	PCB-60	PCB-86	Decachlorobiphenyl	PCB-189	PCB-156	PCB-157	PCB-167	PCB-169	PCB-101	PCB-118	PCB-138	PCB-153	PCB-180	PCB-28	PCB-52	PCBs (Total)	PCB-105	PCB-114	PCB-123	PCB-126	PCB-77	PCB-81
	Polychlorinated Biphenyls Screening in So																																					
	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt
EQL																																						
SB 01 TP 01 0.1	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB 01 TP 01 0.5	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB 02 TP 01 0.1	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB 05 TP 01 0.1	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB 05 TP 01 0.5	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB 06 TP 01 0.1	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB 07 TP 01 0.1	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB 07 TP 01 0.5	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trip A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B67 HA01 0.10 [3299078.227]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B67 HA02 0.10 [3299078.229]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SB2 TP02 0.2	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB2 TP03 0.2	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB4 TP01 0.1	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB4 TP02 0.2	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB4 TP03 0.1	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB08 TP01 0.2	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
SB08 TP01 0.5	<0.000003	<0.0014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Location Code	Date	Field ID	Depth	Lab Report Number	Sample Type	Asbestos in Soil		Asbestos in Soil ESdat Electronic			Asbestos in Soil Presence / Absence			New Zealand Guidelines Semi Quantitative Asbestos													
						As Received Weight	Dry Weight	Amosite Asbestos	Chrysotile Asbestos	Crocidolite Asbestos	Amosite Asbestos	Chrysotile Asbestos	Crocidolite Asbestos	<2mm Subsample Weight	As Received Weight	Asbestos as Asbestos Fines as % of Total Sample	Asbestos as Fibrous Asbestos as % of Total Sample	Asbestos in ACM as % of Total Sample	Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample	Dry Weight	FA and AF Estimation*	Sample Fraction <10mm to >2mm	Sample Fraction >10mm	Weight of Asbestos as Asbestos Fines (Friable)	Weight of Asbestos as Fibrous Asbestos (Friable)	Weight of Asbestos in ACM (Non-Friable)	Moisture (%)
						g	g	Detect	Detect	Detect	Detect	Detect	Detect	g dry wt	g	% w/w	% w/w	% w/w	% w/w	g	g dry wt	g dry wt	g dry wt	g dry wt	g dry wt	g dry wt	%
EQL																											
	28 Mar 2023	B7 TP03 0.1		3220306	Normal	-	-	0	0	0	-	-	-	53.8	599.0	<0.001	<0.001	<0.001	<0.001	492.2	269.7	127.5	94.1	<0.00001	<0.00001	<0.00001	18
	28 Mar 2023	B7 TP04 0.1		3220306	Normal	-	-	0	0	0	-	-	-	57.9	503.0	<0.001	<0.001	<0.001	<0.001	395.2	292.7	101.7	<0.1	<0.00001	<0.00001	<0.00001	21
	28 Mar 2023	B8 HA01 0.1		3219033	Normal	240.0	171.6	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14 Jun 2023	B66 HA01		3299080	Normal	-	-	0	1.0	0	-	-	-	53.9	321.2	0.079	<0.001	<0.001	0.079	278.5	182.8	57.8	37.4	0.2213	<0.00001	<0.00001	13
	14 Jun 2023	B66 HA02		3299080	Normal	-	-	0	1.0	0	-	-	-	52.8	313.6	0.007	<0.001	<0.001	0.007	263.9	121.7	82.6	59.4	0.01821	<0.00001	<0.00001	16
	14 Jun 2023	DIP HA01 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	53.3	559.8	<0.001	<0.001	<0.001	<0.001	321.4	267.9	52.4	<0.1	<0.00001	<0.00001	<0.00001	43
	14 Jun 2023	DIP HA02 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	53.2	662.8	<0.001	<0.001	<0.001	<0.001	488.6	292.4	103.9	91.4	<0.00001	<0.00001	<0.00001	26
	14 Jun 2023	DIP HA03 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	57.1	753.2	<0.001	<0.001	<0.001	<0.001	540.5	392.5	106.9	39.4	<0.00001	<0.00001	<0.00001	28
	11 Sep 2023	NW FILL TP01 0.1		3362886	Normal	-	-	0	0	0	-	-	-	56.1	459.4	<0.001	<0.001	<0.001	<0.001	292.3	269.3	21.5	<0.1	<0.00001	<0.00001	<0.00001	36
	11 Sep 2023	NW FILL TP01 0.5		3362886	Normal	-	-	0	0	0	-	-	-	53.2	497.5	<0.001	<0.001	<0.001	<0.001	320.6	277.8	42.0	<0.1	<0.00001	<0.00001	<0.00001	36
	11 Sep 2023	NW FILL TP02 0.1		3362886	Normal	-	-	0	0	0	-	-	-	59.7	584.6	<0.001	<0.001	<0.001	<0.001	419.0	320.5	97.3	<0.1	<0.00001	<0.00001	<0.00001	28
	11 Sep 2023	NW FILL TP03 0.1		3362886	Normal	-	-	0	0	0	-	-	-	56.1	472.2	<0.001	<0.001	<0.001	<0.001	305.4	271.8	32.3	<0.1	<0.00001	<0.00001	<0.00001	35
	11 Sep 2023	NW FILL TP03 0.5		3362886	Normal	-	-	0	0	0	-	-	-	55.3	506.9	<0.001	<0.001	<0.001	<0.001	352.6	284.9	66.7	<0.1	<0.00001	<0.00001	<0.00001	30
	11 Sep 2023	NW FILL TP04 0.1		3362886	Normal	-	-	0	0	0	-	-	-	53.2	573.2	<0.001	<0.001	<0.001	<0.001	379.5	324.7	53.6	<0.1	<0.00001	<0.00001	<0.00001	34
	11 Sep 2023	NW FILL TP04 0.5		3362886	Normal	-	-	0	0	0	-	-	-	55.6	590.1	<0.001	<0.001	<0.001	<0.001	403.4	228.0	173.0	<0.1	<0.00001	<0.00001	<0.00001	32
	11 Sep 2023	WDF TP01 0.1		3362886	Normal	-	-	0	0	0	-	-	-	58.6	792.2	<0.001	<0.001	<0.001	<0.001	607.3	196.6	190.1	219.9	<0.00001	<0.00001	<0.00001	23
	11 Sep 2023	WDF TP02 0.1		3362886	Normal	-	-	0	0	0	-	-	-	56.6	596.9	<0.001	<0.001	<0.001	<0.001	403.8	213.5	159.8	28.9	<0.00001	<0.00001	<0.00001	32
	11 Sep 2023	WDF TP03 0.1		3362886	Normal	-	-	0	0	0	-	-	-	55.3	563.6	<0.001	<0.001	<0.001	<0.001	337.2	136.6	200.2	<0.1	<0.00001	<0.00001	<0.00001	40
	11 Sep 2023	WDF TP03 0.5		3362886	Normal	-	-	0	0	0	-	-	-	58.7	565.3	<0.001	<0.001	<0.001	<0.001	328.8	183.3	123.1	21.8	<0.00001	<0.00001	<0.00001	42
	11 Sep 2023	WDG TP01 0.1		3362886	Normal	-	-	0	0	0	-	-	-	50.6	577.6	<0.001	<0.001	<0.001	<0.001	416.1	275.7	126.7	13.4	<0.00001	<0.00001	<0.00001	28
	11 Sep 2023	WDG TP02 0.1		3362886	Normal	-	-	0	0	0	-	-	-	54.6	503.4	<0.001	<0.001	<0.001	<0.001	305.0	286.1	15.7	2.8	<0.00001	<0.00001	<0.00001	39
	11 Sep 2023	WDG TP03 0.1		3362886	Normal	-	-	0	0	0	-	-	-	56.6	585.8	<0.001	<0.001	<0.001	<0.001	410.6	312.7	82.4	15.3	<0.00001	<0.00001	<0.00001	30
	11 Sep 2023	WDG TP03 0.5		3362886	Normal	-	-	0	0	0	-	-	-	56.5	549.8	<0.001	<0.001	<0.001	<0.001	316.9	238.9	77.1	<0.1	<0.00001	<0.00001	<0.00001	42
	12 Sep 2023	WDH TP01 0.1		3362886	Normal	-	-	0	0	0	-	-	-	58.3	691.8	<0.001	<0.001	<0.001	<0.001	566.0	219.2	156.2	190.5	<0.00001	<0.00001	<0.00001	18
	12 Sep 2023	WDH TP02 0.1		3362886	Normal	-	-	0	0	0	-	-	-	57.3	891.9	<0.001	<0.001	<0.001	<0.001	802.0	215.5	283.0	303.2	<0.00001	<0.00001	<0.00001	10
	12 Sep 2023	WDH TP03 0.1		3362886	Normal	-	-	0	0	0	-	-	-	59.9	655.3	<0.001	<0.001	<0.001	<0.001	495.0	224.5	90.0	180.0	<0.00001	<0.00001	<0.00001	24
	12 Sep 2023	WDH TP03 0.5		3362886	Normal	-	-	0	0	0	-	-	-	55.4	545.4	<0.001	<0.001	<0.001	<0.001	366.5	237.0	83.5	45.5	<0.00001	<0.00001	<0.00001	33
B16_TP04	16 Mar 2023	B16 TP04 0.1	0 - 0.1	3212697	Normal	-	-	0	0	0	-	-	-	58.8	854.9	<0.001	<0.001	<0.001	<0.001	746.8	299.8	379.3	67.4	<0.00001	<0.00001	<0.00001	13
B16_TP06	16 Mar 2023	B16 TP06 0.1	0 - 0.1	3212697	Normal	-	-	0	1.0	0	-	-	-	54.9	636.7	<0.001	<0.001	<0.001	<0.001	473.5	406.5	66.5	<0.1	0.00155	<0.00001	<0.00001	26
B16_TP06	16 Mar 2023	B16 TP06 0.5 A	0.4 - 0.5	3212697	Normal	-	-	0	0	0	-	-	-	53.1	730.3	<0.001	<0.001	<0.001	<0.001	566.0	562.0	3.7	<0.1	<0.00001	<0.00001	<0.00001	22
B16_TP07	17 Mar 2023	B16 TP07 0.1	0 - 0.1	3212697	Normal	-	-	0	0	0	-	-	-	55.9	676.1	<0.001	<0.001	<0.001	<0.001	516.3	478.9	34.9	2.0	<0.00001	<0.00001	<0.00001	24
B26_TP01	19 Jun 2023	B26 TP01 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	58.2	681.4	<0.001	<0.001	<0.001	<0.001	511.2	233.1	177.3	98.3	<0.00001	<0.00001	<0.00001	25
B26_TP02	19 Jun 2023	B26 TP02 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	55.9	698.4	<0.001	<0.001	<0.001	<0.001	539.3	224.7	195.0	118.5	<0.00001	<0.00001	<0.00001	23
B26_TP02	19 Jun 2023	B26 TP02 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	1.0	-	-	-	52.4	459.8	<0.001	<0.001	<0.001	<0.001	318.1	212.5	99.3	5.0	0.00005	<0.00001	<0.00001	31
B26_TP03	19 Jun 2023	B26 TP03 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	57.3	671.1	<0.001	<0.001	<0.001	<0.001	500.2	225.4	174.3	99.0	<0.00001	<0.00001	<0.00001	25
B34_TP03	07 Jun 2023	B34 TP 03 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	57.8	772.3	<0.001	<0.001	<0.001	<0.001	555.1	399.5	51.9	103.1	<0.00001	<0.00001	<0.00001	28
B34_TP04	07 Jun 2023	B34 TP 04 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	55.5	792.8	<0.001	<0.001	<0.001	<0.001	614.9	545.0	46.1	23.2	<0.00001	<0.00001	<0.00001	22
B35_TP02	07 Jun 2023	B35 TP 02 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	57.6	820.7	<0.001	<0.001	<0.001	<0.001	721.8	297.5	408.6	15.5	<0.00001	<0.00001	<0.00001	12
B35_TP02	07 Jun 2023	B35 TP 02 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	56.7	695.6	<0.001	<0.001	<0.001	<0.001	480.4	462.4	17.1	<0.1	<0.00001	<0.00001	<0.00001	31
B35_TP03	07 Jun 2023	B35 TP 03 0.10	0 - 0.1	3299080	Normal	-	-	0	1.0	1.0	-	-	-	56.1	759.0	<0.001	<0.001	<0.001	<0.001	640.7	258.7	322.9	59.0	0.00211	<0.00001	<0.00001	16
B35_TP04	07 Jun 2023	B35 TP 04 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	53.2	619.1	<0.001	<0.001	<0.001	<0.001	474.1	427.0	30.6	16.2	<0.00001	<0.00001	<0.00001	23
B35_TP04	07 Jun 2023	B35 TP 04 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	54.2	633.0	<0.001	<0.001	<0.001	<0.001	460.0	431.2	28.2	<0.1	<0.00001	<0.00001	<0.00001	27
B35_TP05	07 Jun 2023	B35 TP 05 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	54.0	681.8	<0.001	<0.001	<0.001	<0.001	606.1	534.6	70.3	1.2	<0.00001	<0.00001	<0.00001	11
B59_TP04	14 Jun 2023	B59 TP04 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	50.4	750.4	<0.001	<0.001	<0.001	<0.001	647.3	234.2	235.8	176.8	<0.00001	<0.00001	<0.00001	14
B59_TP04	14 Jun 2023	B59 TP04 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	52.4	610.8	<0.001	<0.001	<0.001	<0.001	425.5	158.2	193.8	72.2	<0.00001	<0.00001	<0.00001	30
B63_TP03	21 Mar 2023	B63 TP03 0.1	0 - 0.1	3213233	Normal	-	-	0	0	0	-	-	-	53.7	1,041.2	<0.001	<0.001	<0.001	<0.001	944.9	548.6	242.2	153.9	<0.00001	<0.00001	<0.00001	9
B63_TP04	21 Mar 2023	B63 TP04 0.2	0.1 - 0.2	3213233	Normal	-	-	0	0	0	-	-	-	50.2	745.7	<0.001	<0.001	<0.001	<0.001	548.1	135.6	246.2	165.4	<0.00001	<0.00001	<0.00001	26
B66_TP01	21 Mar 2023	B66 TP01 0.1	0 - 0.1	3213233	Normal	-	-	0	0	0	-	-	-	59.0	915.9	<0.001	<0.001	<0.001	<0.001	842.7	496.8	168.8	177.0	<0.00001	<0.00001	<0.00001	8
B66_TP01	21 Mar 2023	B66 TP01 0.9	0.8 - 0.9	3213233	Normal	-	-	0	0	0	-	-	-	53.0	815.2	<0.001	<0.001	<0.001	<0.001	549.3	547.4	<0.1	<0.1	<0.00001	<0.00001	<0.00001	33
B66_TP01	21 Mar 2023	B66 TP01 1.1	1 - 1.1	3213233	Normal	-	-	0	0	0	-	-	-	54.9	742.7	<0.001	<0.001	<0.001	<0.001	462.0	402.7	57.6	<0.1	<0.00001	<0.00001	<0.00001	38
B67_HA01	14 Jun 2023	B67 HA01 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	59.0	1,007.3	<0.001	<0.001	<0.001	<0.001	957.2	270.7	231.6	454.5	<0.00001	<0.00001	<0.00001	5
B67_HA01	14 Jun 2023	B67 HA01 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	58.9	1,012.5	<0.001	<0.001	<0.001	<0.001	869.9	611.9	106.9	150.2	<0.00001	<0.00001	<0.00001	14
B67_HA02	14 Jun 2023	B67 HA02 0.10	0 - 0.1	3299080	Normal	-	-	0	1.0	0	-	-	-	55.8	856.2	<0.001	<0.001	<0.001	<0.001	791.2	166.5	279.5	342.7	0.00009	<0.00001	<0.00001	8
B67_HA02	14 Jun 2023	B67 HA02 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	54.2	691.9	<0.001	<0.001	<0.001	<0.001	445.4	272.2	146.9	23.8	<0.00001	<0.00001	<0.00001	36
B68_TP06	20 Mar 2023	B68 TP06 0.1	0 - 0.1	3213233	Normal	-	-	0	0	0	-	-	-	58.0	964.2	<0.001	<0.001	<0.001	<0.001	886.8	293.3	233.9	359.1	<0.00001	<0.00001	<0.00001	8
B68_TP07	20 Mar 2023	B68 TP07 0.1	0 - 0.1	3213233	Normal	-	-	0	0	0	-	-	-	56.3	894.3	<0.001	<0.001	<0.001	<0.001	823.9	336.4	155.2	332.1	<0.00001	<0.00001	<0.00001	8
B68_TP08	20 Mar 2023	B68 TP08 0.2	0.1 - 0.2	3213233	Normal	-	-	0	0	0	-	-	-	59.3	891.1	<0.001	<0.001	<0.001	<0.001	810.9	611.8	96.0	81.8	<0.00001	<0.00001	<0.00001	9
CHP_TP01	16 Mar 2023	CHP TP01 0.2	0.1 - 0.2	3212697	Normal	-	-	0	1.0	0	-	-	-	54.6	985.2	<0.001	<0.001	<0.001	<0.001	922.4	212.2	336.8	373.4	0.00320	<0.00001	<0.00001	6
CHP_TP01	16 Mar 2023	CHP TP01 0.2	0.1 - 0.2	3212716	Normal	243.1	227.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHP_TP01	16 Mar 2023	CHP TP01 0.5	0.4 - 0.5	3212697	Normal	-	-	0	0	0	-	-	-	56.1	601.1	<0.001	<0.001	<0.001	<0.001	449.9	423.7	14.4	11.7	<0.00001	<0.00001	<0.00001	25
CHP_TP01	16 Mar 2023	CHP TP01 0.5	0.4 - 0.5	3212716	Normal	172.8	129.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHP_TP04	16 Mar 2023	CHP TP04 0.2	0.1 - 0.2	3212716	Normal	156.8	115.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHP_TP04	16 Mar 2023	CHP TP04 0.6	0.5 - 0.6	3212697	Normal	-	-	0	0	0	-	-	-	55.3	646.6	<0.001	<0.001	<0.001	<0.001	481.4	481.1	<0.1	<0.1	<0.00001	<0.00001	<0.00001	26
CHP_TP04	16 Mar 2023	CHP TP04 0.6	0.5 - 0.6	3212716	Normal	161.3	117.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DS01_TP01	12 Jun 2023	DS01 TP01 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	56.0	571.9	<0.001	<0.001	<0.001	<0.001	367.7	350.0	17.2	<0.1	<0.00001	<0.00001	<0.00001	36
DS01_TP01	12 Jun 2023	DS01 TP01 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	59.5	705.0	<0.001	<0.001	<0.001	<0.001	468.6	451.3	17.1	<0.1	<0.00001	<0.00001	<0.00001	34
DS01_TP02	12 Jun 2023	DS01 TP02 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	53.9	619.1	<0.001	<0.001	<0.001	<0.001	442.9	222.7	118.3	101.8	<0.00001	<0.00001	<0.00001	28
DS01_TP03	12 Jun 2023	DS01 TP03 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	52.9	595.7	<0.001	<0.001	<0.001	<0.001	374.6	314.6	59.1	<0.1	<0.00001	<0.00001	<0.00001	37
DS01_TP03	12 Jun 2023	DS01 TP03 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	50.2	777.0	<0.001	<0.001	<0.001	<0.001	533.1	532.6	<0.1	<0.1	<0.00001	<0.00001	<0.00001	31
DS01_TP04	12 Jun 2023	DS01 TP04 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	58.7	628.2	<0.001	<0.001	<0.001	<0.001	401.7	308.0	93.3	<0.1	<0.00001	<0.00001	<0.00001	36
DS01_TP05	12 Jun 2023	DS01 TP05 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	52.7	578.2	<0.001	<0.001	<0.001	<0.001	375.3	282.4	92.4	<0.1	<0.00001	<0.00001	<0.00001	35
DS01_TP05	12 Jun 2023	DS01 TP05 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	54.4	766.3	<0.001	<0.001	<0.001	<0.001	514.8	514.3	<0.1	<0.1	<0.00001	<0.00001	<0.00001	33
DS02_TP01	20 Jun 2023	DS02 TP01 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	56.1	441.3	<0.001	<0.001	<0.001	<0.001	257.1	156.3	99.4	<0.1	<0.00001	<0.00001	<0.00001	42
DS02_TP01	20 Jun 2023	DS02 TP01 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	50.2	359.6	<0.001	<0.001	<0.001	<0.001	206.2	94.5	109.1	<0.1	<0.00001	<0.00001	<0.00001	43
DS02_TP02	19 Jun 2023	DS02 TP02 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	55.1	626.8	<0.001	<0.001	<0.001	<0.001	404.3	213.6	159.8	29.0	<0.00001	<0.00001	<0.00001	36
DS02_TP03	20 Jun 2023	DS02 TP03 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	50.6	866.1	<0.001	<0.001	<0.001	<0.001	601.6	444.6	99.3	50.6	<0.00001	<0.00001	<0.00001	31
DS02_TP03	20 Jun 2023	DS02 TP03 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	51.0	489.4	<0.001	<0.001	<0.001	<0.001	294.0	154.6	135.8	2.1	<0.00001	<0.00001	<0.00001	40
DS02_TP04	20 Jun 2023	DS02 TP04 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	50.1	473.3	<0.001	<0.001	<0.001	<0.001	290.4	242.1	46.8	<0.1	<0.00001	<0.00001	<0.00001	39
DS02_TP05	20 Jun 2023	DS02 TP05 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	53.5	440.4	<0.001	<0.001	<0.001	<0.001	260.2	165.4	78.2	16.0	<0.00001	<0.00001	<0.00001	41
DS02_TP05	20 Jun 2023	DS02 TP05 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	55.7	371.2	<0.001	<0.001	<0.001	<0.001	223.3	127.8	94.2	<0.1	<0.00001	<0.00001	<0.00001	40
DS03_TP01	21 Jun 2023	DS03 TP01 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	56.6	620.7	<0.001	<0.001	<0.001	<0.001	437.8	314.2	119.9	2.7	<0.00001	<0.00001	<0.00001	29
DS03_TP01	21 Jun 2023	DS03 TP01 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	59.4	633.1	<0.001	<0.001	<0.001	<0.001	487.5	476.0	10.6	<0.1	<0.00001	<0.00001	<0.00001	23
DS03_TP02	21 Jun 2023	DS03 TP02 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	52.4	611.7	<0.001	<0.001	<0.001	<0.001	393.7	278.3	112.3	<0.1	<0.00001	<0.00001	<0.00001	36
DS03_TP02	21 Jun 2023	DS03 TP02 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	54.7	674.8	<0.001	<0.001	<0.001	<0.001	499.8	399.8	98.6	<0.1	<0.00001	<0.00001	<0.00001	26
DS03_TP03	21 Jun 2023	DS03 TP03 0.1	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	55.0	658.4	<0.001	<0.001	<0.001	<0.001	462.0	355.2	105.1	<0.1	<0.00001	<0.00001	<0.00001	30
DS03_TP03	21 Jun 2023	DS03 TP03 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	53.9	687.4	<0.001	<0.001	<0.001	<0.001	500.3	431.9	67.1	<0.1	<0.00001	<0.00001	<0.00001	27
DS03_TP04	21 Jun 2023	DS03 TP04 0.1	0 - 0.1	3299080	Normal	-	-	0	1.0	0	-	-	-	53.8	712.1	<0.001	<0.001	<0.001	<0.001	515.7	343.1	147.3	24.0	0.00026	<0.00001	<0.00001	28
DS03_TP04	21 Jun 2023	DS03 TP04 0.5	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	56.1	653.4	<0.001	<0.001	<0.001	<0.001	458.0	375.3	81.5	<0.1	<0.00001	<0.00001	<0.00001	30
HT_TP25	17 Mar 2023	HT TP25 0.2	0.1 - 0.2	3212697	Normal	-	-	0	0	0	-	-	-	54.2	784.5	<0.001	<0.001	<0.001	<0.001	669.6	269.9	183.0	216.4	<0.00001	<0.00001	<0.00001	15
HT_TP27	17 Mar 2023	HT TP27 0.1	0 - 0.1	3212697	Normal	-	-	0	0	0	-	-	-	53.7	606.9	<0.001	<0.001	<0.001	<0.001	486.3	283.6	127.2	75.3	<0.00001	<0.00001	<0.00001	20
HT_TP28	17 Mar 2023	HT TP28 0.1	0 - 0.1	3212697	Normal	-	-	0	0	0	-	-	-	58.8	673.6	<0.001	<0.001	<0.001	<0.001	522.3	341.0	111.0	69.8	<0.00001	<0.00001	<0.00001	22
HT_TP29	08 Jun 2023	HT TP 29 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	50.6	743.7	<0.001	<0.001	<0.001	<0.001	611.8	233.5	213.3	165.0	<0.00001	<0.00001	<0.00001	18
NUR_TP01	13 Jun 2023	NUR TP01 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	53.0	634.2	<0.001	<0.001	<0.001	<0.001	447.9	307.6	127.2	12.9	<0.00001	<0.00001	<0.00001	29
NUR_TP01	13 Jun 2023	NUR TP01 0.50	0.4 - 0.5	3299080	Normal	-	-	0	1.0	0	-	-	-	53.1	572.2	<0.001	<0.001	<0.001	<0.001	369.6	283.6	82.0	3.3	0.00096	<0.00001	<0.00001	35
NUR_TP02	13 Jun 2023	NUR TP02 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	51.7	825.6	<0.001	<0.001	<0.001	<0.001	666.0	330.3	239.3	96.3	<0.00001	<0.00001	<0.00001	19
NUR_TP03	13 Jun 2023	NUR TP03 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	55.0	589.6	<0.001	<0.001	<0.001	<0.001	415.2	247.2	96.1	71.6	<0.00001	<0.00001	<0.00001	30
NUR_TP03	13 Jun 2023	NUR TP03 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	53.2	549.0	<0.001	<0.001	<0.001	<0.001	354.2	273.5	63.0	16.8	<0.00001	<0.00001	<0.00001	35
NUR_TP04	13 Jun 2023	NUR TP04 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	54.8	581.7	<0.001	<0.001	<0.001	<0.001	396.4	261.7	108.4	26.0	<0.00001	<0.00001	<0.00001	32
PAV_TP01	12 Jun 2023	PAV TP01 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	57.2	638.4	<0.001	<0.001	<0.001	<0.001	475.4	240.1	139.5	95.4	<0.00001	<0.00001	<0.00001	26
PAV_TP01	12 Jun 2023	PAV TP01 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	53.0	593.6	<0.001	<0.001	<0.001	<0.001	422.7	250.9	140.8	30.2	<0.00001	<0.00001	<0.00001	29
PAV_TP02	12 Jun 2023	PAV TP02 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	50.7	588.9	<0.001	<0.001	<0.001	<0.001	415.5	341.4	65.0	8.8	<0.00001	<0.00001	<0.00001	29
SB2_TP02	16 Mar 2023	SB2 TP02 0.2	0.1 - 0.2	3212697	Normal	-	-	0	0	0	-	-	-	57.5	1,070.0	<0.001	<0.001	<0.001	<0.001	1,029.1	217.8	439.8	371.1	<0.00001	<0.00001	<0.00001	4
SB2_TP03	16 Mar 2023	SB2 TP03 0.2	0.1 - 0.2	3212697	Normal	-	-	0	1.0	1.0	-	-	-	57.3	822.9	0.009	<0.001	<0.001	0.009	710.2	309.2	232.8	167.8	0.06124	<0.00001	<0.00001	14
SB4_TP01	20 Mar 2023	SB4 TP01 0.1	0 - 0.1	3213233	Normal	-	-	0	0	0	-	-	-	50.8	646.6	<0.001	<0.001	<0.001	<0.001	501.8	416.4	84.4	<0.1	<0.00001	<0.00001	<0.00001	22
SB4_TP02	20 Mar 2023	SB4 TP02 0.2	0.1 - 0.2	3213233	Normal	-	-	0	0	0	-	-	-	53.6	682.5	<0.001	<0.001	<0.001	<0.001	495.1	320.8	157.4	16.1	<0.00001	<0.00001	<0.00001	27
SB4_TP02	20 Mar 2023	SB4 TP02 0.5	0.4 - 0.5	3213233	Normal	-	-	0	0	0	-	-	-	51.5	794.4	<0.001	<0.001	<0.001	<0.001	522.9	522.0	<0.1	<0.1	<0.00001	<0.00001	<0.00001	34
SB4_TP03	20 Mar 2023	SB4 TP03 0.1	0 - 0.1	3213233	Normal	-	-	0	0	0	-	-	-	55.7	731.8	<0.001	<0.001	<0.001	<0.001	590.9	192.2	333.9	64.6	<0.00001	<0.00001	<0.00001	19
SB8_HA01	12 Sep 2023	SB08 HA01 0.1	0.1 - 0.1	3362886	Normal	-	-	0	0	0	-	-	-	53.5	515.2	<0.001	<0.001	<0.001	<0.001	328.9	265.8	51.9	10.5	<0.00001	<0.00001	<0.00001	36
SB8_HA01	12 Sep 2023	SB08 HA01 0.5	0.5 - 0.5	3362886	Normal	-	-	0	0	0	-	-	-	53.6	623.9	<0.001	<0.001	<0.001	<0.001	417.4	361.6	49.1	6.1	<0.00001	<0.00001	<0.00001	33
SB8_HA02	12 Sep 2023	SB08 HA02 0.1	0.1 - 0.1	3362886	Normal	-	-	0	1.0	0	-	-	-	54.9	543.1	0.003	<0.001	<0.001	0.003	324.3	290.1	30.8	3.1	0.00821	<0.00001	<0.00001	40
SB8_HA02	12 Sep 2023	SB08 HA02 0.5	0.5 - 0.5	3362886	Normal	-	-	0	0	0	-	-	-	52.7	538.9	<0.001	<0.001	<0.001	<0.001	367.2	311.6	34.2	21.2	<0.00001	<0.00001	<0.00001	32
SB8_HA03	12 Sep 2023	SB08 HA03 0.1	0.1 - 0.1	3362886	Normal	-	-	0	0	0	-	-	-	52.9	541.4	<0.001	<0.001	<0.001	<0.001	338.5	285.2	46.5	6.4	<0.00001	<0.00001	<0.00001	37
SB8_HA03	12 Sep 2023	SB08 HA03 0.5	0.5 - 0.5	3362886	Normal	-	-	0	0	0	-	-	-	50.4	545.9	<0.001	<0.001	<0.001	<0.001	370.5	308.8	55.9	5.4	<0.00001	<0.00001	<0.00001	32
SB8_HA04	12 Sep 2023	SB08 HA04 0.1	0.1 - 0.1	3362886	Normal	-	-	0	0	0	-	-	-	52.0	471.5	<0.001	<0.001	<0.001	<0.001	295.2	244.5	39.4	11.1	<0.00001	<0.00001	<0.00001	37
SB8_HA04	12 Sep 2023	SB08 HA04 0.5	0.5 - 0.5	3362886	Normal	-	-	0	0	0	-	-	-	53.3	489.5	<0.001	<0.001	<0.001	<0.001	325.8	261.9	63.7	<0.1	<0.00001	<0.00001	<0.00001	33
WD2_TP01	22 Mar 2023	WD TP01 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	50.8	687.4	<0.001	<0.001	<0.001	<0.001	505.3	315.2	188.5	<0.1	<0.00001	<0.00001	<0.00001	26
WD2_TP02	22 Mar 2023	WD TP02 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	57.4	681.8	<0.001	<0.001	<0.001	<0.001	508.7	325.8	169.5	11.1	<0.00001	<0.00001	<0.00001	25
WD2_TP03	22 Mar 2023	WD TP03 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	51.8	627.7	<0.001	<0.001	<0.001	<0.001	455.0	278.4	157.9	18.3	<0.00001	<0.00001	<0.00001	28
WD2_TP04	22 Mar 2023	WD TP04 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	54.9	638.0	<0.001	<0.001	<0.001	<0.001	459.8	321.6	137.2	<0.1	<0.00001	<0.00001	<0.00001	28
WD2_TP05	22 Mar 2023	WD TP05 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	50.9	645.6	<0.001	<0.001	<0.001	<0.001	467.9	311.8	148.9	5.3	<0.00001	<0.00001	<0.00001	28
WD2_TP06	22 Mar 2023	WD2 TP06 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	52.8	597.9	<0.001	<0.001	<0.001	<0.001	403.2	317.8	83.0	1.5	<0.00001	<0.00001	<0.00001	33
WD2_TP07	22 Mar 2023	WD2 TP07 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	51.0	613.8	<0.001	<0.001	<0.001	<0.001	429.9	321.7	99.3	8.0	<0.00001	<0.00001	<0.00001	30
WD2_TP08	22 Mar 2023	WD2 TP08 0.2	0.1 - 0.2	3216641	Normal	-	-	0	0	0	-	-	-	57.5	577.0	<0.001	<0.001	<0.001	<0.001	396.9	324.9	70.7	<0.1	<0.00001	<0.00001	<0.00001	31
WD2_TP09	22 Mar 2023	WD2 TP09 0.1	0 - 0.1	3216641	Normal	-	-	0	0	0	-	-	-	54.0	636.4	<0.001	<0.001	<0.001	<0.001	443.4	349.2	93.2	<0.1	<0.00001	<0.00001	<0.00001	30
WWTP_TP01	13 Jun 2023	WWTP TP01 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	51.8	697.1	<0.001	<0.001	<0.001	<0.001	505.4	447.7	50.0	7.2	<0.00001	<0.00001	<0.00001	27
WWTP_TP01	13 Jun 2023	WWTP TP01 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	53.0	800.3	<0.001	<0.001	<0.001	<0.001	552.6	550.7	1.7	<0.1	<0.00001	<0.00001	<0.00001	31
WWTP_TP02	13 Jun 2023	WWTP TP02 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	51.2	693.3	<0.001	<0.001	<0.001	<0.001	508.5	356.0	113.6	38.5	<0.00001	<0.00001	<0.00001	27
WWTP_TP02	13 Jun 2023	WWTP TP02 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	59.3	755.7	<0.001	<0.001	<0.001	<0.001	482.1	481.6	<0.1	<0.1	<0.00001	<0.00001	<0.00001	36
WWTP_TP03	13 Jun 2023	WWTP TP03 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	56.1	725.9	<0.001	<0.001	<0.001	<0.001	555.3	410.4	113.8	30.3	<0.00001	<0.00001	<0.00001	24
WWTP_TP03	13 Jun 2023	WWTP TP03 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	54.5	783.2	<0.001	<0.001	<0.001	<0.001	589.1	479.8	105.3	3.4	<0.00001	<0.00001	<0.00001	25
WWTP_TP04	13 Jun 2023	WWTP TP04 0.10	0 - 0.1	3299080	Normal	-	-	0	0	0	-	-	-	55.9	881.4	<0.001	<0.001	<0.001	<0.001	778.0	159.1	203.0	415.6	<0.00001	<0.00001	<0.00001	12
WWTP_TP04	13 Jun 2023	WWTP TP04 0.50	0.4 - 0.5	3299080	Normal	-	-	0	0	0	-	-	-	58.1	848.6	<0.001	<0.001	<0.001	<0.001	712.7	167.3	213.9	331.0	<0.00001	<0.00001	<0.00001	16

						Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn							Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn										Polycyclic Aromatic Hydrocarbons Screening in Wate																SPLP Profile		TCLP Profile				
						Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Nickel	Zinc	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Nickel	Zinc	Beryllium	Boron	Mercury	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	SPLP Final pH	SPLP Sample Weight	Mass of test sample	pH of Leaching Fluid	pH (Initial)	pH (after HCL)	pH (Final)
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pH Units	g	g	pH units	pH units	pH units	pH units
EQL																																													
Location Code	**Date**	**Field ID**	**Depth**	**Lab Report Number**	**Sample Type**																																								
	16 Mar 2023	B16 TP04 0.1 [3209697.9]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	50	-	-	-	-	-
	16 Mar 2023	B16 TP06 0.1 [3209697.12]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	5.0	9.1	2.8	6.5
	16 Mar 2023	CHP TP01 0.2 [3209697.5]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	4.9	6.8	1.4	4.9
	16 Mar 2023	CHP TP04 0.2 [3209697.7]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	4.9	7.1	1.4	4.9
	17 Mar 2023	DIP TP03 0.2 [3209697.25]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	4.9	8.7	1.6	5.1
	17 Mar 2023	HT TP25 0.2 [3209697.28]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	4.9	7.7	1.5	5.0
	21 Mar 2023	B66 TP01 0.1 [3211645.29]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	4.9	6.9	1.5	4.9
	07 Jun 2023	B34 TP 05 0.10 [3299078.13]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	4.9	6.3	1.5	4.9
	07 Jun 2023	B34 TP 06 0.10 [3299078.16]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.8	50	-	-	-	-	-
	07 Jun 2023	B35 TP 03 0.10 [3299078.28]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.1	50	-	-	-	-	-
	12 Jun 2023	B35 HA01 0.10 [3299078.179]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	4.9	7.5	1.5	5.0
	12 Jun 2023	PAV TP01 0.10 [3299078.211]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.8	50	-	-	-	-	-
	13 Jun 2023	WWTP TP03 0.10 [3299078.171]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	5.0	6.3	1.5	5.0
	14 Jun 2023	B59 TP04 0.10 [3299078.219]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.4	50	-	-	-	-	-
	14 Jun 2023	B66 HA01 [3299078.225]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	5.0	8.5	2.7	6.6
	14 Jun 2023	B66 HA02 [3299078.226]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	5.0	7.2	1.8	5.4
	14 Jun 2023	B67 HA02 0.10 [3299078.229]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	5.0	9.3	1.7	5.3
	14 Jun 2023	B71 TP02 0.10 [3299078.234]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.4	101	-	-	-	-	-
	14 Jun 2023	DIP HA02 0.10 [3299078.239]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	4.9	7.3	1.8	5.0
	19 Jun 2023	B19 TP01 0.1 [3299078.251]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101	4.9	6.9	1.6	5.0
	19 Jun 2023	B26 TP01 0.1 [3299078.266]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	4.9	7.7	1.6	5.1
	19 Jun 2023	B26 TP02 0.1 [3299078.267]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.0	50	-	-	-	-	-
	20 Jun 2023	B73 TP01 0.1 [3299078.284]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	100	-	-	-	-	-
	20 Jun 2023	DS02 TP03 0.1 [3299078.309]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	5.0	6.8	1.6	5.0
	20 Jun 2023	DS02 TP03 0.5 [3299078.310]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	5.0	6.5	1.5	5.0
	20 Jun 2023	DS02 TP05 0.1 [3299078.315]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	50	-	-	-	-	-
	21 Jun 2023	DS03 TP03 0.1 [3299078.324]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	4.9	6.1	1.5	4.9
	23 Jun 2023	HSP SED 01 0.1 [3299078.363]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.2	50	-	-	-	-	-
	23 Jun 2023	HSP SED 04 0.05 [3299078.370]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2	100	-	-	-	-	-
	23 Jun 2023	STR SED 03 0.3 [3299078.359]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	100	-	-	-	-	-
	07 Jul 2023	HT TP 29 0.10 [3299078.133]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	5.0	6.5	1.5	5.0
	07 Jul 2023	HT TP 30 0.10 [3299078.136]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	5.0	6.7	1.6	5.0
	20 Jul 2023	B16 TP04 0.1 [3209697.9] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	<0.0011	<0.000053	0.00083	0.0037	0.0058	0.00138	0.0133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B16 TP06 0.1 [3209697.12] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	<0.0021	0.017	0.034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B19 TP01 0.1 [3299078.251] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	0.0086	<0.011	0.109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B26 TP01 0.1 [3299078.266] [TCLP Extract]		3325652	Normal	<0.021	0.0024	<0.011	0.014	0.134	<0.011	0.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B26 TP02 0.1 [3299078.267] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	0.0014	<0.000053	0.00081	0.0064	0.020	0.00074	0.0110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B34 TP 05 0.10 [3299078.13] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	<0.0021	<0.011	0.197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B34 TP 06 0.10 [3299078.16] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	<0.0011	<0.000053	0.00079	0.0047	0.0079	0.00099	0.0164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B35 HA01 0.10 [3299078.179] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	0.032	<0.011	0.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B35 TP 03 0.10 [3299078.28] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	0.0034	<0.000053	0.0021	0.0045	0.023	0.00076	0.026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B59 TP04 0.10 [3299078.219] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	0.0031	<0.000053	0.00117	0.00196	0.0046	0.00077	0.0120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B66 HA01 [3299078.225] [TCLP Extract]		3325652	Normal	<0.021	0.0019	<0.011	0.075	0.066	0.041	1.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B66 HA02 [3299078.226] [TCLP Extract]		3325652	Normal	<0.021	0.0059	<0.011	0.081	0.080	0.019	2.5	-	-	-	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.2	<0.10	<0.5	<0.4	<0.2	-	-	-	-	-	-	-
	20 Jul 2023	B66 TP01 0.1 [3211645.29] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	<0.0021	<0.011	0.034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B67 HA02 0.10 [3299078.229] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	<0.0021	<0.011	0.029	-	-	-	-	-	-	-	-	-	-	17.4	0.13	5.8	0.23	<0.10	<0.10	<0.10	<0.10	0.21	<0.10	5.9	10.1	<0.10	0.6	25	4.3	-	-	-	-	-	-	-
	20 Jul 2023	B71 TP02 0.10 [3299078.234] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	<0.0011	<0.000053	0.00092	0.0028	0.00129	<0.00053	0.0071	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	B73 TP01 0.1 [3299078.284] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	<0.0011	<0.000053	0.00088	0.0022	0.0034	<0.00053	0.0121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	CHP TP01 0.2 [3209697.5] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	0.24	<0.011	0.057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	CHP TP04 0.2 [3209697.7] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	0.055	0.0022	<0.011	0.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	DIP HA02 0.10 [3299078.239] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	<0.0021	<0.011	0.070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	DIP TP03 0.2 [3209697.25] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	<0.0021	<0.011	0.049	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	DS02 TP03 0.1 [3299078.309] [TCLP Extract]		3325652	Normal	<0.021	0.0022	<0.011	<0.011	0.083	<0.011	0.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	DS02 TP03 0.5 [3299078.310] [TCLP Extract]		3325652	Normal	<0.021	0.0017	<0.011	0.013	0.035	<0.011	1.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	DS02 TP05 0.1 [3299078.315] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	0.0012	<0.000053	0.0032	0.0098	0.020	0.00137	0.023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	DS03 TP03 0.1 [3299078.324] [TCLP Extract]		3325652	Normal	<0.021	0.0018	<0.011	<0.011	0.116	<0.011	0.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	HSP SED 01 0.1 [3299078.363] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	<0.0011	<0.000053	<0.00053	0.0026	0.0021	<0.00053	0.0077	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	HSP SED 04 0.05 [3299078.370] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	0.0025	<0.000053	<0.00053	0.0023	0.0020	0.00056	0.0114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	HT TP25 0.2 [3209697.28] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	0.018	<0.0021	<0.011	0.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	HT TP 29 0.10 [3299078.133] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	0.082	<0.011	0.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	HT TP 30 0.10 [3299078.136] [TCLP Extract]		3325652	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.2	<0.10	<0.5	<0.4	<0.2	-	-	-	-	-	-	-
	20 Jul 2023	PAV TP01 0.10 [3299078.211] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	<0.0011	<0.000053	0.00111	0.0074	0.0033	0.00078	0.0135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	STR SED 03 0.3 [3299078.359] [SPLP Extract]		3325652	Normal	-	-	-	-	-	-	-	0.0019	<0.000053	<0.00053	0.00093	0.00110	<0.00053	0.0044	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 Jul 2023	WWTP TP03 0.10 [3299078.171] [TCLP Extract]		3325652	Normal	<0.021	<0.0011	<0.011	<0.011	0.0112	<0.011	0.104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix G

Laboratory certificates

R J Hill Laboratories Limited
28 Duke Street Frankton 3204
Private Bag 3205
Hamilton 3240 New Zealand

0508 HILL LAB (44 555 22)
+64 7 858 2000
mail@hill-labs.co.nz
www.hill-labs.co.nz

Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3209697 SPv3
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	21-Mar-2023
		Date Reported:	16-Jun-2023 **(Amended)**
		Quote No:	124299
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		SB2 TP02 0.2 16-Mar-2023	SB2 TP02 0.7 16-Mar-2023	SB2 TP03 0.2 16-Mar-2023	SB2 TP03 0.5 16-Mar-2023	CHP TP01 0.2 16-Mar-2023
Lab Number:		3209697.1	3209697.2	3209697.3	3209697.4	3209697.5
Individual Tests						
Dry Matter	g/100g as rcvd	94	79	77	79	-
Total Recoverable Beryllium	mg/kg dry wt	0.6	-	0.6	-	0.4
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	-	4	-	3
Total Recoverable Boron	mg/kg dry wt	< 20	-	< 20	-	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	-	0.10	-	< 0.10
Total Recoverable Chromium	mg/kg dry wt	15	-	10	-	9
Total Recoverable Copper	mg/kg dry wt	19	-	21	-	11
Total Recoverable Lead	mg/kg dry wt	18.4	-	38	-	163
Total Recoverable Mercury	mg/kg dry wt	< 0.10	-	< 0.10	-	< 0.10
Total Recoverable Nickel	mg/kg dry wt	10	-	5	-	6
Total Recoverable Zinc	mg/kg dry wt	96	-	139	-	56
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	1.1	4.6	2.8	4.2	-
1-Methylnaphthalene	mg/kg dry wt	< 0.011	< 0.013	< 0.013	< 0.013	-
2-Methylnaphthalene	mg/kg dry wt	< 0.011	< 0.013	< 0.013	< 0.013	-
Acenaphthylene	mg/kg dry wt	< 0.011	< 0.013	0.035	0.056	-
Acenaphthene	mg/kg dry wt	0.011	0.013	< 0.013	< 0.013	-
Anthracene	mg/kg dry wt	0.036	0.068	0.021	0.035	-
Benzo[a]anthracene	mg/kg dry wt	0.070	0.34	0.194	0.33	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.096	0.52	0.33	0.42	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.139	0.73	0.48	0.62	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.137	0.73	0.48	0.61	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.097	0.53	0.36	0.49	-
Benzo[e]pyrene	mg/kg dry wt	0.058	0.31	0.22	0.30	-
Benzo[g,h,i]perylene	mg/kg dry wt	0.061	0.36	0.28	0.35	-
Benzo[k]fluoranthene	mg/kg dry wt	0.038	0.20	0.128	0.172	-
Chrysene	mg/kg dry wt	0.067	0.32	0.194	0.32	-
Dibenzo[a,h]anthracene	mg/kg dry wt	0.014	0.063	0.052	0.060	-
Fluoranthene	mg/kg dry wt	0.170	0.51	0.29	0.50	-
Fluorene	mg/kg dry wt	0.011	< 0.013	< 0.013	< 0.013	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.061	0.35	0.26	0.34	-
Naphthalene	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Perylene	mg/kg dry wt	0.022	0.114	0.085	0.100	-
Phenanthrene	mg/kg dry wt	0.135	0.21	0.054	0.094	-

Sample Type: Soil						
	Sample Name:	SB2 TP02 0.2 16-Mar-2023	SB2 TP02 0.7 16-Mar-2023	SB2 TP03 0.2 16-Mar-2023	SB2 TP03 0.5 16-Mar-2023	CHP TP01 0.2 16-Mar-2023
	Lab Number:	3209697.1	3209697.2	3209697.3	3209697.4	3209697.5
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Pyrene	mg/kg dry wt	0.158	0.66	0.31	0.61	-
Polychlorinated Biphenyls Screening in Soil*						
PCB-18	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-28	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-31	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-44	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-49	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-52	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-60	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-77	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-81	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-86	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-101	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-105	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-110	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-114	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-118	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-121	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-123	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-126	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-128	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-138	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-141	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-149	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-151	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-153	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-156	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-157	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-159	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-167	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-169	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-170	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-180	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-189	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-194	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-206	mg/kg dry wt	< 0.010	-	< 0.010	-	-
PCB-209	mg/kg dry wt	< 0.010	-	< 0.010	-	-
Mono-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.000003	-	< 0.000003	-	-
Non-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.0014	-	< 0.0014	-	-
Total PCB (Sum of 35 congeners)	mg/kg dry wt	< 0.4	-	< 0.4	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 20	< 20	< 20	< 20	-
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	-
C15 - C36	mg/kg dry wt	< 40	< 40	53	< 40	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 80	< 80	< 80	< 80	-

	Sample Name:	CHP TP01 0.5 16-Mar-2023	CHP TP04 0.2 16-Mar-2023	CHP TP04 0.6 16-Mar-2023	B16 TP04 0.1 16-Mar-2023	B16 TP06 0.5 16-Mar-2023
	Lab Number:	3209697.6	3209697.7	3209697.8	3209697.9	3209697.11
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	-	92	-
Total Recoverable Beryllium	mg/kg dry wt	0.5	0.8	0.8	2.4	1.0

Sample Type: Soil						
Sample Name:		CHP TP01 0.5 16-Mar-2023	CHP TP04 0.2 16-Mar-2023	CHP TP04 0.6 16-Mar-2023	B16 TP04 0.1 16-Mar-2023	B16 TP06 0.5 16-Mar-2023
Lab Number:		3209697.6	3209697.7	3209697.8	3209697.9	3209697.11
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	2	4	3	6	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	172	54
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.13	< 0.10	0.47	0.11
Total Recoverable Chromium	mg/kg dry wt	7	7	5	12	9
Total Recoverable Copper	mg/kg dry wt	10	117	17	64	14
Total Recoverable Lead	mg/kg dry wt	19.8	35	19.4	196	20
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	0.11
Total Recoverable Nickel	mg/kg dry wt	3	4	3	44	7
Total Recoverable Zinc	mg/kg dry wt	24	280	66	155	47
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	-	-	< 0.3	-
1-Methylnaphthalene	mg/kg dry wt	-	-	-	< 0.011	-
2-Methylnaphthalene	mg/kg dry wt	-	-	-	< 0.011	-
Acenaphthylene	mg/kg dry wt	-	-	-	< 0.011	-
Acenaphthene	mg/kg dry wt	-	-	-	< 0.011	-
Anthracene	mg/kg dry wt	-	-	-	< 0.011	-
Benzo[a]anthracene	mg/kg dry wt	-	-	-	< 0.011	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	-	< 0.011	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	-	< 0.026	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	-	< 0.026	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	-	< 0.011	-
Benzo[e]pyrene	mg/kg dry wt	-	-	-	< 0.011	-
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	-	< 0.011	-
Benzo[k]fluoranthene	mg/kg dry wt	-	-	-	< 0.011	-
Chrysene	mg/kg dry wt	-	-	-	< 0.011	-
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	-	< 0.011	-
Fluoranthene	mg/kg dry wt	-	-	-	< 0.011	-
Fluorene	mg/kg dry wt	-	-	-	< 0.011	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	-	< 0.011	-
Naphthalene	mg/kg dry wt	-	-	-	< 0.06	-
Perylene	mg/kg dry wt	-	-	-	< 0.011	-
Phenanthrene	mg/kg dry wt	-	-	-	< 0.011	-
Pyrene	mg/kg dry wt	-	-	-	0.011	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	-	-	< 20	-
C10 - C14	mg/kg dry wt	-	-	-	< 20	-
C15 - C36	mg/kg dry wt	-	-	-	45	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	-	-	< 80	-
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	-	-	< 0.15	-
Ethylbenzene	mg/kg dry wt	-	-	-	< 0.3	-
Toluene	mg/kg dry wt	-	-	-	< 0.3	-
m&p-Xylene	mg/kg dry wt	-	-	-	< 0.3	-
o-Xylene	mg/kg dry wt	-	-	-	< 0.3	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	-	-	< 0.3	-
Carbon tetrachloride	mg/kg dry wt	-	-	-	< 0.3	-
Chloroethane	mg/kg dry wt	-	-	-	< 0.3	-
Chloromethane	mg/kg dry wt	-	-	-	< 0.3	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	-	-	< 0.5	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	-	-	< 0.3	-
Dibromomethane	mg/kg dry wt	-	-	-	< 0.3	-

Sample Type: Soil						
Sample Name:		CHP TP01 0.5 16-Mar-2023	CHP TP04 0.2 16-Mar-2023	CHP TP04 0.6 16-Mar-2023	B16 TP04 0.1 16-Mar-2023	B16 TP06 0.5 16-Mar-2023
Lab Number:		3209697.6	3209697.7	3209697.8	3209697.9	3209697.11
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
1,3-Dichloropropane	mg/kg dry wt	-	-	-	< 0.3	-
Dichlorodifluoromethane	mg/kg dry wt	-	-	-	< 0.5	-
1,1-Dichloroethane	mg/kg dry wt	-	-	-	< 0.3	-
1,2-Dichloroethane	mg/kg dry wt	-	-	-	< 0.3	-
1,1-Dichloroethene	mg/kg dry wt	-	-	-	< 0.3	-
cis-1,2-Dichloroethene	mg/kg dry wt	-	-	-	< 0.3	-
trans-1,2-Dichloroethene	mg/kg dry wt	-	-	-	< 0.3	-
Dichloromethane (methylene chloride)	mg/kg dry wt	-	-	-	< 3	-
1,2-Dichloropropane	mg/kg dry wt	-	-	-	< 0.3	-
1,1-Dichloropropene	mg/kg dry wt	-	-	-	< 0.3	-
cis-1,3-Dichloropropene	mg/kg dry wt	-	-	-	< 0.3	-
trans-1,3-Dichloropropene	mg/kg dry wt	-	-	-	< 0.3	-
Hexachlorobutadiene	mg/kg dry wt	-	-	-	< 0.3	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	-	-	< 0.3	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	-	-	< 0.3	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	-	-	< 0.3	-
1,1,1-Trichloroethane	mg/kg dry wt	-	-	-	< 0.3	-
1,1,2-Trichloroethane	mg/kg dry wt	-	-	-	< 0.3	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	-	-	< 0.3	-
Trichlorofluoromethane	mg/kg dry wt	-	-	-	< 0.3	-
1,2,3-Trichloropropane	mg/kg dry wt	-	-	-	< 0.5	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	-	-	< 0.3	-
Vinyl chloride	mg/kg dry wt	-	-	-	< 0.3	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	-	-	< 0.3	-
1,3-Dichlorobenzene	mg/kg dry wt	-	-	-	< 0.3	-
4-Chlorotoluene	mg/kg dry wt	-	-	-	< 0.3	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	-	-	< 0.3	-
1,2-Dichlorobenzene	mg/kg dry wt	-	-	-	< 0.3	-
1,4-Dichlorobenzene	mg/kg dry wt	-	-	-	< 0.3	-
2-Chlorotoluene	mg/kg dry wt	-	-	-	< 0.3	-
1,2,3-Trichlorobenzene	mg/kg dry wt	-	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	-	< 0.3	-
1,3,5-Trichlorobenzene	mg/kg dry wt	-	-	-	< 0.3	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	-	-	< 0.3	-
tert-Butylbenzene	mg/kg dry wt	-	-	-	< 0.3	-
Isopropylbenzene (Cumene)	mg/kg dry wt	-	-	-	< 0.3	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	-	-	< 0.3	-
n-Propylbenzene	mg/kg dry wt	-	-	-	< 0.3	-
sec-Butylbenzene	mg/kg dry wt	-	-	-	< 0.3	-
Styrene	mg/kg dry wt	-	-	-	< 0.3	-
1,2,4-Trimethylbenzene	mg/kg dry wt	-	-	-	< 0.3	-
1,3,5-Trimethylbenzene	mg/kg dry wt	-	-	-	< 0.3	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	-	-	< 30	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	-	-	< 6	-
Acetone	mg/kg dry wt	-	-	-	< 30	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	-	-	< 0.3	-

Sample Type: Soil						
Sample Name:		CHP TP01 0.5 16-Mar-2023	CHP TP04 0.2 16-Mar-2023	CHP TP04 0.6 16-Mar-2023	B16 TP04 0.1 16-Mar-2023	B16 TP06 0.5 16-Mar-2023
Lab Number:		3209697.6	3209697.7	3209697.8	3209697.9	3209697.11
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	-	-	< 0.3	-
Bromoform (tribromomethane)	mg/kg dry wt	-	-	-	< 0.5	-
Chloroform (Trichloromethane)	mg/kg dry wt	-	-	-	< 0.3	-
Dibromochloromethane	mg/kg dry wt	-	-	-	< 0.3	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	-	-	< 0.3	-
Naphthalene	mg/kg dry wt	-	-	-	< 0.3	-

Sample Name:		B16 TP06 0.1 16-Mar-2023	B16 TP09 0.1 16-Mar-2023	B16 TP09 0.5 16-Mar-2023	B16 TP07 0.1 17-Mar-2023	B16 TP08 0.1 17-Mar-2023
Lab Number:		3209697.12	3209697.13	3209697.14	3209697.15	3209697.17
Individual Tests						
Dry Matter	g/100g as rcvd	71	73	71	74	71
Total Recoverable Beryllium	mg/kg dry wt	9.4	-	-	1.3	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	12	-	-	5	-
Total Recoverable Boron	mg/kg dry wt	1,430	-	-	< 20	-
Total Recoverable Cadmium	mg/kg dry wt	0.11	-	-	0.24	-
Total Recoverable Chromium	mg/kg dry wt	10	-	-	9	-
Total Recoverable Copper	mg/kg dry wt	36	-	-	21	-
Total Recoverable Lead	mg/kg dry wt	35	-	-	51	-
Total Recoverable Mercury	mg/kg dry wt	< 0.10	-	-	0.14	-
Total Recoverable Nickel	mg/kg dry wt	220	-	-	5	-
Total Recoverable Zinc	mg/kg dry wt	220	-	-	108	-
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.4	< 0.4	< 0.4	0.4	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
2-Methylnaphthalene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
Acenaphthylene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
Acenaphthene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
Anthracene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
Benzo[a]anthracene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	0.027	0.016
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.014	0.021	< 0.014	0.041	0.022
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.033	< 0.033	< 0.033	0.060	< 0.034
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.033	< 0.033	< 0.033	0.059	< 0.034
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.014	0.026	< 0.014	0.045	0.026
Benzo[e]pyrene	mg/kg dry wt	< 0.014	0.015	< 0.014	0.023	< 0.014
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.014	0.022	< 0.014	0.032	0.018
Benzo[k]fluoranthene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	0.017	< 0.014
Chrysene	mg/kg dry wt	< 0.014	0.015	< 0.014	0.030	0.019
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
Fluoranthene	mg/kg dry wt	< 0.014	0.032	< 0.014	0.058	0.040
Fluorene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.014	0.019	< 0.014	0.028	0.015
Naphthalene	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Perylene	mg/kg dry wt	< 0.014	< 0.014	< 0.014	< 0.013	< 0.014
Phenanthrene	mg/kg dry wt	< 0.014	0.015	< 0.014	0.021	< 0.014
Pyrene	mg/kg dry wt	< 0.014	0.030	< 0.014	0.057	0.036
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	94	< 40	< 40	< 40	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	97	< 80	< 80	< 80	< 80

Sample Type: Soil						
	Sample Name:	B16 TP06 0.1 16-Mar-2023	B16 TP09 0.1 16-Mar-2023	B16 TP09 0.5 16-Mar-2023	B16 TP07 0.1 17-Mar-2023	B16 TP08 0.1 17-Mar-2023
	Lab Number:	3209697.12	3209697.13	3209697.14	3209697.15	3209697.17
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Ethylbenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Toluene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
m&p-Xylene	mg/kg dry wt	< 0.5	< 0.5	-	< 0.5	< 0.5
o-Xylene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Carbon tetrachloride	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Chloroethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Chloromethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	< 0.5	-	< 0.5	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Dibromomethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,3-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	< 0.5	-	< 0.5	< 0.5
1,1-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,1-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	< 5	< 5	-	< 5	< 5
1,2-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,1-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Hexachlorobutadiene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Trichlorofluoromethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	< 0.5	-	< 0.5	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Vinyl chloride	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
2-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
tert-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3

Sample Type: Soil						
Sample Name:		B16 TP06 0.1 16-Mar-2023	B16 TP09 0.1 16-Mar-2023	B16 TP09 0.5 16-Mar-2023	B16 TP07 0.1 17-Mar-2023	B16 TP08 0.1 17-Mar-2023
Lab Number:		3209697.12	3209697.13	3209697.14	3209697.15	3209697.17
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
n-Propylbenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
sec-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Styrene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 50	< 50	-	< 50	< 50
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 10	< 9	-	< 9	< 10
Acetone	mg/kg dry wt	< 50	< 50	-	< 50	< 50
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	< 0.5	-	< 0.5	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Dibromochloromethane	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3
Naphthalene	mg/kg dry wt	< 0.3	< 0.3	-	< 0.3	< 0.3

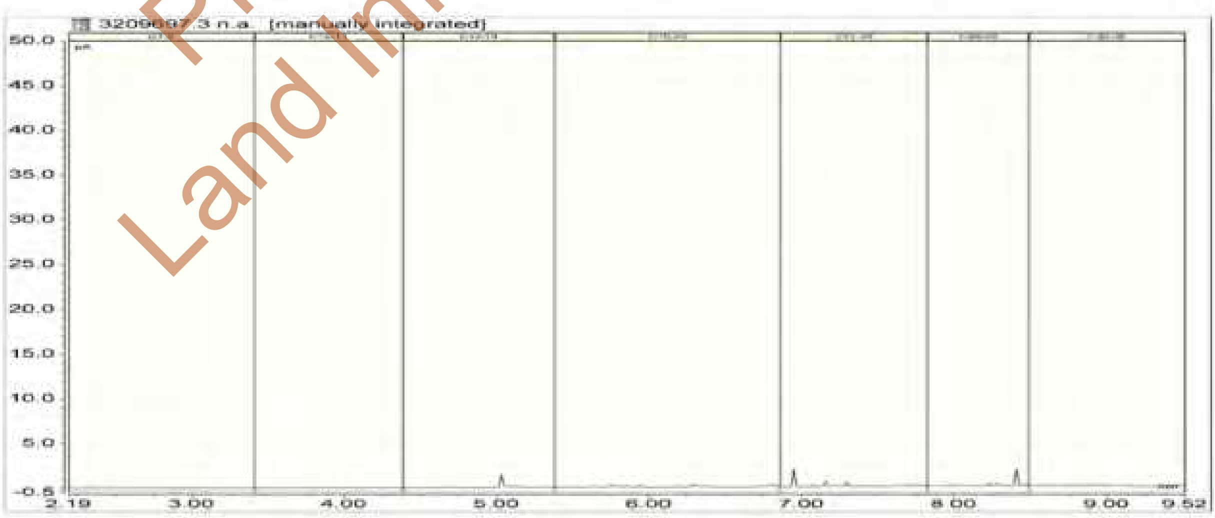
Sample Name:		B16 TP08 0.5 17-Mar-2023	DIP TP01 0.2 17-Mar-2023	DIP TP02 0.2 17-Mar-2023	DIP TP03 0.2 17-Mar-2023	HT TP25 0.2 17-Mar-2023
Lab Number:		3209697.18	3209697.19	3209697.22	3209697.25	3209697.28
Individual Tests						
Dry Matter	g/100g as rcvd	71	82	76	79	81
Total Recoverable Beryllium	mg/kg dry wt	-	1.0	0.9	2.8	2.0
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	-	11	7	14	11
Total Recoverable Boron	mg/kg dry wt	-	109	< 20	1,200	650
Total Recoverable Cadmium	mg/kg dry wt	-	0.27	0.27	0.23	0.22
Total Recoverable Chromium	mg/kg dry wt	-	14	8	15	11
Total Recoverable Copper	mg/kg dry wt	-	54	55	60	109
Total Recoverable Lead	mg/kg dry wt	-	65	80	59	51
Total Recoverable Mercury	mg/kg dry wt	-	0.15	0.22	0.20	0.16
Total Recoverable Nickel	mg/kg dry wt	-	15	6	102	50
Total Recoverable Zinc	mg/kg dry wt	-	134	97	95	97
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
alpha-BHC	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
beta-BHC	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
delta-BHC	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
gamma-BHC (Lindane)	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
cis-Chlordane	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
trans-Chlordane	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
2,4'-DDD	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
4,4'-DDD	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
2,4'-DDE	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
4,4'-DDE	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
2,4'-DDT	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
4,4'-DDT	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Total DDT Isomers	mg/kg dry wt	-	< 0.08	< 0.08	< 0.08	< 0.08
Dieldrin	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Endosulfan I	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Endosulfan II	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012

Sample Type: Soil						
Sample Name:		B16 TP08 0.5 17-Mar-2023	DIP TP01 0.2 17-Mar-2023	DIP TP02 0.2 17-Mar-2023	DIP TP03 0.2 17-Mar-2023	HT TP25 0.2 17-Mar-2023
Lab Number:		3209697.18	3209697.19	3209697.22	3209697.25	3209697.28
Organochlorine Pesticides Screening in Soil						
Endosulfan sulphate	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Endrin	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Endrin aldehyde	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Endrin ketone	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Heptachlor	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Heptachlor epoxide	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Hexachlorobenzene	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Methoxychlor	mg/kg dry wt	-	< 0.012	< 0.013	< 0.013	< 0.012
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.4	-	-	-	-
1-Methylnaphthalene	mg/kg dry wt	< 0.014	-	-	-	-
2-Methylnaphthalene	mg/kg dry wt	< 0.014	-	-	-	-
Acenaphthylene	mg/kg dry wt	< 0.014	-	-	-	-
Acenaphthene	mg/kg dry wt	< 0.014	-	-	-	-
Anthracene	mg/kg dry wt	< 0.014	-	-	-	-
Benzo[a]anthracene	mg/kg dry wt	< 0.014	-	-	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.014	-	-	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.034	-	-	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.034	-	-	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.014	-	-	-	-
Benzo[e]pyrene	mg/kg dry wt	< 0.014	-	-	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.014	-	-	-	-
Benzo[k]fluoranthene	mg/kg dry wt	< 0.014	-	-	-	-
Chrysene	mg/kg dry wt	< 0.014	-	-	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.014	-	-	-	-
Fluoranthene	mg/kg dry wt	< 0.014	-	-	-	-
Fluorene	mg/kg dry wt	< 0.014	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.014	-	-	-	-
Naphthalene	mg/kg dry wt	< 0.07	-	-	-	-
Perylene	mg/kg dry wt	< 0.014	-	-	-	-
Phenanthrene	mg/kg dry wt	< 0.014	-	-	-	-
Pyrene	mg/kg dry wt	< 0.014	-	-	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 20	-	-	-	< 20
C10 - C14	mg/kg dry wt	< 20	-	-	-	< 20
C15 - C36	mg/kg dry wt	< 40	-	-	-	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 80	-	-	-	< 80

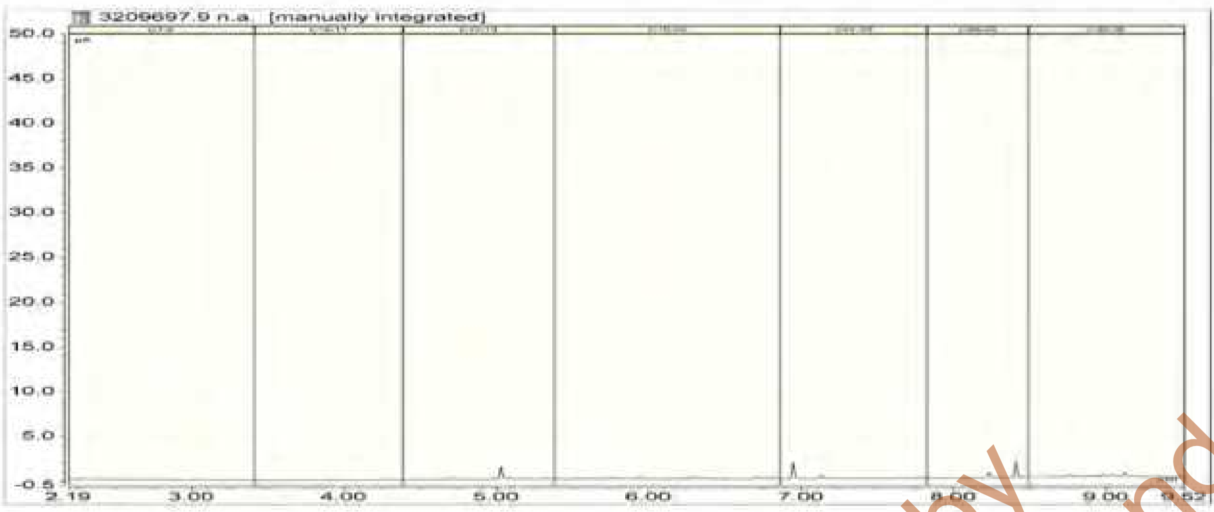
Sample Name:		HT TP25 1.2 17-Mar-2023	HT TP27 0.1 17-Mar-2023	HT TP27 0.5 17-Mar-2023	HT TP27 0.7 17-Mar-2023	HT TP28 0.1 17-Mar-2023
Lab Number:		3209697.30	3209697.31	3209697.32	3209697.33	3209697.35
Individual Tests						
Dry Matter	g/100g as rcvd	-	84	-	-	75
Total Recoverable Beryllium	mg/kg dry wt	0.7	1.7	0.3	0.4	1.2
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	< 2	7	3	3	4
Total Recoverable Boron	mg/kg dry wt	< 20	380	< 20	49	128
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.14	< 0.10	< 0.10	0.10
Total Recoverable Chromium	mg/kg dry wt	7	13	8	6	9
Total Recoverable Copper	mg/kg dry wt	10	28	9	9	27
Total Recoverable Lead	mg/kg dry wt	19.3	83	18.3	22	43
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	0.26
Total Recoverable Nickel	mg/kg dry wt	3	35	3	5	14

Sample Type: Soil						
	Sample Name:	HT TP25 1.2 17-Mar-2023	HT TP27 0.1 17-Mar-2023	HT TP27 0.5 17-Mar-2023	HT TP27 0.7 17-Mar-2023	HT TP28 0.1 17-Mar-2023
	Lab Number:	3209697.30	3209697.31	3209697.32	3209697.33	3209697.35
8 Heavy metals plus Boron						
Total Recoverable Zinc	mg/kg dry wt	28	81	31	44	50
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	< 0.012	-	-	< 0.013
alpha-BHC	mg/kg dry wt	-	< 0.012	-	-	< 0.013
beta-BHC	mg/kg dry wt	-	< 0.012	-	-	< 0.013
delta-BHC	mg/kg dry wt	-	< 0.012	-	-	< 0.013
gamma-BHC (Lindane)	mg/kg dry wt	-	< 0.012	-	-	< 0.013
cis-Chlordane	mg/kg dry wt	-	< 0.012	-	-	< 0.013
trans-Chlordane	mg/kg dry wt	-	< 0.012	-	-	< 0.013
2,4'-DDD	mg/kg dry wt	-	< 0.012	-	-	< 0.013
4,4'-DDD	mg/kg dry wt	-	< 0.012	-	-	< 0.013
2,4'-DDE	mg/kg dry wt	-	< 0.012	-	-	< 0.013
4,4'-DDE	mg/kg dry wt	-	< 0.012	-	-	0.016
2,4'-DDT	mg/kg dry wt	-	< 0.012	-	-	< 0.013
4,4'-DDT	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Total DDT Isomers	mg/kg dry wt	-	< 0.07	-	-	< 0.08
Dieldrin	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Endosulfan I	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Endosulfan II	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Endosulfan sulphate	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Endrin	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Endrin aldehyde	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Endrin ketone	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Heptachlor	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Heptachlor epoxide	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Hexachlorobenzene	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Methoxychlor	mg/kg dry wt	-	< 0.012	-	-	< 0.013
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	< 20	-	-	< 20
C10 - C14	mg/kg dry wt	-	< 20	-	-	< 20
C15 - C36	mg/kg dry wt	-	< 40	-	-	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	< 80	-	-	< 80

3209697.3
SB2 TP03 0.2 16-Mar-2023
Client Chromatogram for TPH by FID



3209697.9
B16 TP04 0.1 16-Mar-2023
Client Chromatogram for TPH by FID



3209697.12
B16 TP06 0.1 16-Mar-2023
Client Chromatogram for TPH by FID

Analyst's Comments

Amended Report: This certificate of analysis replaces report '3209697-SPv2' issued on 06-Apr-2023 at 3:42 pm.
Reason for amendment: Additional metals testing added.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1, 3, 5-9, 11-12, 15, 19, 22, 25, 28, 30-33, 35
Total of Reported PAHs in Soil	Sonication extraction, GC-MS analysis. In-house based on US EPA 8270.	0.03 mg/kg dry wt	1-4, 9, 12-15, 17-18

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	1-4, 9, 12-15, 17-19, 22, 25, 28, 31, 35
Total Recoverable Beryllium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.2 mg/kg dry wt	1, 3, 5-9, 11-12, 15, 19, 22, 25, 28, 30-33, 35
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	BaP Potency Equivalence calculated from; Benzo(a)anthracene x 0.1 + Benzo(b)fluoranthene x 0.1 + Benzo(j)fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Benzo(a)pyrene x 1.0 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Fluoranthene x 0.01 + Indeno(1,2,3-c,d)pyrene x 0.1. Ministry for the Environment. 2011. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.	0.024 mg/kg dry wt	1-4, 9, 12-15, 17-18
Benzo[a]pyrene Toxic Equivalence (TEF)*	Benzo[a]pyrene Toxic Equivalence (TEF) calculated from; Benzo[a]pyrene x 1.0 + Benzo(a)anthracene x 0.1 + Benzo(b) fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Indeno(1,2,3-c,d)pyrene x 0.1. Guidelines for assessing and managing contaminated gasworks sites in New Zealand (GMG) (MfE, 1997).	0.024 mg/kg dry wt	1-4, 9, 12-15, 17-18
TPH Oil Industry Profile + PAHscreen	Sonication extraction, GC-FID and GC-MS analysis. Tested on as received sample. In-house based on US EPA 8015 and US EPA 8270.	0.010 - 70 mg/kg dry wt	1-4, 9, 12-15, 17-18
8 Heavy metals plus Boron	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 20 mg/kg dry wt	1, 3, 5-9, 11-12, 15, 19, 22, 25, 28, 30-33, 35
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	19, 22, 25, 28, 31, 35
Polychlorinated Biphenyls Screening in Soil*	Sonication extraction, GC-MS analysis. Tested on dried sample. In-house based on US EPA 8270.	0.00000020 - 0.2 mg/kg dry wt	1, 3
Volatile Organic Compounds Screening in Soil by Headspace GC-MS	Sonication extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.13 - 30 mg/kg dry wt	9, 12-13, 15, 17
Total Petroleum Hydrocarbons in Soil			
Client Chromatogram for TPH by FID	Small peaks associated with QC compounds may be visible in chromatograms with low TPH concentrations. QC peaks are as follows: one peak in the C12 - 14 band, the C21 - 25 band and the C30 - 36 band. All QC peaks are corrected for in the reported TPH concentrations.	-	3, 9, 12
C7 - C9	Solvent extraction, GC-FID analysis. In-house based on US EPA 8015.	20 mg/kg dry wt	1-4, 9, 12-15, 17-18, 28, 31, 35
C10 - C14	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	20 mg/kg dry wt	1-4, 9, 12-15, 17-18, 28, 31, 35
C15 - C36	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	40 mg/kg dry wt	1-4, 9, 12-15, 17-18, 28, 31, 35
Total hydrocarbons (C7 - C36)	Calculation: Sum of carbon bands from C7 to C36. In-house based on US EPA 8015.	70 mg/kg dry wt	1-4, 9, 12-15, 17-18, 28, 31, 35

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 23-Mar-2023 and 16-Jun-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Kim Harrison MSc
Client Services Manager - Environmental

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3211645 SPv3
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	22-Mar-2023
		Date Reported:	16-Jun-2023 **(Amended)**
		Quote No:	124299
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		SB4 TP01 0.1 20-Mar-2023	SB4 TP01 0.5 20-Mar-2023	SB4 TP02 0.2 20-Mar-2023	SB4 TP02 0.5 20-Mar-2023	SB4 TP03 0.1 20-Mar-2023
Lab Number:		3211645.1	3211645.2	3211645.3	3211645.4	3211645.5
Individual Tests						
Dry Matter	g/100g as rcvd	70	60	64	59	69
Total Recoverable Beryllium	mg/kg dry wt	0.9	-	1.1	1.6	1.0
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	-	15	12	9
Total Recoverable Boron	mg/kg dry wt	< 20	-	71	< 20	22
Total Recoverable Cadmium	mg/kg dry wt	0.24	-	0.28	< 0.10	0.25
Total Recoverable Chromium	mg/kg dry wt	10	-	13	5	10
Total Recoverable Copper	mg/kg dry wt	26	-	42	15	24
Total Recoverable Lead	mg/kg dry wt	27	-	23	12.2	35
Total Recoverable Mercury	mg/kg dry wt	0.15	-	0.20	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	5	-	10	2	8
Total Recoverable Zinc	mg/kg dry wt	116	-	98	29	132
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	1.0	< 0.4	< 0.4	< 0.4	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.015	< 0.017	< 0.016	< 0.017	< 0.014
2-Methylnaphthalene	mg/kg dry wt	< 0.015	< 0.017	< 0.016	< 0.017	< 0.014
Acenaphthylene	mg/kg dry wt	< 0.015	< 0.017	< 0.016	< 0.017	< 0.014
Acenaphthene	mg/kg dry wt	< 0.015	< 0.017	< 0.016	< 0.017	< 0.014
Anthracene	mg/kg dry wt	< 0.015	< 0.017	< 0.016	< 0.017	< 0.014
Benzo[a]anthracene	mg/kg dry wt	0.084	< 0.017	0.016	< 0.017	0.027
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.096	< 0.017	0.018	< 0.017	0.028
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.143	< 0.040	< 0.038	< 0.040	0.043
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.142	< 0.039	< 0.038	< 0.040	0.042
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.117	< 0.017	0.025	< 0.017	0.034
Benzo[e]pyrene	mg/kg dry wt	0.058	< 0.017	< 0.016	< 0.017	0.018
Benzo[g,h,i]perylene	mg/kg dry wt	0.055	< 0.017	< 0.016	< 0.017	0.015
Benzo[k]fluoranthene	mg/kg dry wt	0.047	< 0.017	< 0.016	< 0.017	< 0.014
Chrysene	mg/kg dry wt	0.080	< 0.017	< 0.016	< 0.017	0.027
Dibenzo[a,h]anthracene	mg/kg dry wt	0.014	< 0.017	< 0.016	< 0.017	< 0.014
Fluoranthene	mg/kg dry wt	0.171	< 0.017	0.035	< 0.017	0.062
Fluorene	mg/kg dry wt	< 0.015	< 0.017	< 0.016	< 0.017	< 0.014
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.060	< 0.017	< 0.016	< 0.017	0.016
Naphthalene	mg/kg dry wt	< 0.08	< 0.09	< 0.08	< 0.09	< 0.07
Perylene	mg/kg dry wt	0.024	< 0.017	< 0.016	< 0.017	< 0.014
Phenanthrene	mg/kg dry wt	0.024	< 0.017	< 0.016	< 0.017	0.020

Sample Type: Soil						
Sample Name:		SB4 TP01 0.1 20-Mar-2023	SB4 TP01 0.5 20-Mar-2023	SB4 TP02 0.2 20-Mar-2023	SB4 TP02 0.5 20-Mar-2023	SB4 TP03 0.1 20-Mar-2023
Lab Number:		3211645.1	3211645.2	3211645.3	3211645.4	3211645.5
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Pyrene	mg/kg dry wt	0.128	< 0.017	0.025	< 0.017	0.042
Polychlorinated Biphenyls Screening in Soil*						
PCB-18	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-28	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-31	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-44	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-49	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-52	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-60	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-77	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-81	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-86	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-101	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-105	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-110	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-114	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-118	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-121	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-123	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-126	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-128	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-138	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-141	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-149	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-151	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-153	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-156	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-157	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-159	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-167	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-169	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-170	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-180	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-189	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-194	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-206	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
PCB-209	mg/kg dry wt	< 0.010	-	< 0.010	-	< 0.010
Mono-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.000003	-	< 0.000003	-	< 0.000003
Non-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.0014	-	< 0.0014	-	< 0.0014
Total PCB (Sum of 35 congeners)	mg/kg dry wt	< 0.4	-	< 0.4	-	< 0.4
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 20	< 30	< 30	< 30	< 20
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	< 40	< 40	88	< 40	48
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 80	< 90	98	< 90	< 80

Sample Name:		SB4 TP03 0.4 20-Mar-2023	B68 TP06 0.1 20-Mar-2023	B68 TP06 0.5 20-Mar-2023	B68 TP07 0.2 20-Mar-2023	B68 TP08 0.2 20-Mar-2023
Lab Number:		3211645.6	3211645.7	3211645.8	3211645.10	3211645.13
Individual Tests						
Dry Matter	g/100g as rcvd	67	92	88	91	89
Total Recoverable Beryllium	mg/kg dry wt	-	0.6	-	-	0.2

Sample Type: Soil						
Sample Name:		SB4 TP03 0.4 20-Mar-2023	B68 TP06 0.1 20-Mar-2023	B68 TP06 0.5 20-Mar-2023	B68 TP07 0.2 20-Mar-2023	B68 TP08 0.2 20-Mar-2023
Lab Number:		3211645.6	3211645.7	3211645.8	3211645.10	3211645.13
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	-	8	-	-	3
Total Recoverable Boron	mg/kg dry wt	-	< 20	-	-	< 20
Total Recoverable Cadmium	mg/kg dry wt	-	< 0.10	-	-	< 0.10
Total Recoverable Chromium	mg/kg dry wt	-	15	-	-	4
Total Recoverable Copper	mg/kg dry wt	-	18	-	-	3
Total Recoverable Lead	mg/kg dry wt	-	10.8	-	-	3.8
Total Recoverable Mercury	mg/kg dry wt	-	< 0.10	-	-	< 0.10
Total Recoverable Nickel	mg/kg dry wt	-	23	-	-	3
Total Recoverable Zinc	mg/kg dry wt	-	51	-	-	20
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	1.5	< 0.3	< 0.3	< 0.3	< 0.3
1-Methylnaphthalene	mg/kg dry wt	< 0.015	< 0.011	< 0.012	< 0.011	< 0.012
2-Methylnaphthalene	mg/kg dry wt	< 0.015	< 0.011	< 0.012	< 0.011	< 0.012
Acenaphthylene	mg/kg dry wt	< 0.015	< 0.011	< 0.012	< 0.011	< 0.012
Acenaphthene	mg/kg dry wt	< 0.015	< 0.011	< 0.012	< 0.011	< 0.012
Anthracene	mg/kg dry wt	0.021	< 0.011	< 0.012	< 0.011	< 0.012
Benzo[a]anthracene	mg/kg dry wt	0.150	< 0.011	< 0.012	< 0.011	< 0.012
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.136	< 0.011	< 0.012	< 0.011	< 0.012
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.199	< 0.026	< 0.028	< 0.027	< 0.027
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.196	< 0.026	< 0.027	< 0.027	< 0.027
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.160	< 0.011	< 0.012	< 0.011	< 0.012
Benzo[e]pyrene	mg/kg dry wt	0.074	< 0.011	< 0.012	< 0.011	< 0.012
Benzo[g,h,i]perylene	mg/kg dry wt	0.069	< 0.011	< 0.012	< 0.011	< 0.012
Benzo[k]fluoranthene	mg/kg dry wt	0.063	< 0.011	< 0.012	< 0.011	< 0.012
Chrysene	mg/kg dry wt	0.153	< 0.011	< 0.012	< 0.011	< 0.012
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.015	< 0.011	< 0.012	< 0.011	< 0.012
Fluoranthene	mg/kg dry wt	0.30	< 0.011	< 0.012	< 0.011	< 0.012
Fluorene	mg/kg dry wt	< 0.015	< 0.011	< 0.012	< 0.011	< 0.012
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.078	< 0.011	< 0.012	< 0.011	< 0.012
Naphthalene	mg/kg dry wt	< 0.08	< 0.06	< 0.06	< 0.06	< 0.06
Perylene	mg/kg dry wt	0.029	< 0.011	< 0.012	< 0.011	< 0.012
Phenanthrene	mg/kg dry wt	0.027	< 0.011	< 0.012	< 0.011	< 0.012
Pyrene	mg/kg dry wt	0.27	< 0.011	< 0.012	< 0.011	< 0.012
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	< 20	< 20	< 20	< 20
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	< 40	< 40	< 40	< 40	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	< 80	< 80	< 80	< 80

Sample Name:		B74 TP06 0.1 20-Mar-2023	B74 TP06 2.5 20-Mar-2023	B74 TP07 0.1 20-Mar-2023	B74 TP04 0.1 21-Mar-2023	B74 TP04 0.7 21-Mar-2023
Lab Number:		3211645.16	3211645.18	3211645.19	3211645.24	3211645.25
Individual Tests						
Dry Matter	g/100g as rcvd	62	71	67	94	64
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	< 20	< 30	< 20	< 30
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	54	< 40	< 40	41	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	< 80	< 90	< 80	< 90
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.15	-
Ethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Toluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-

Sample Type: Soil						
Sample Name:		B74 TP06 0.1 20-Mar-2023	B74 TP06 2.5 20-Mar-2023	B74 TP07 0.1 20-Mar-2023	B74 TP04 0.1 21-Mar-2023	B74 TP04 0.7 21-Mar-2023
Lab Number:		3211645.16	3211645.18	3211645.19	3211645.24	3211645.25
BTEX in VOC Soils by Headspace GC-MS						
m&p-Xylene	mg/kg dry wt	< 0.6	< 0.5	< 0.6	< 0.3	-
o-Xylene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Carbon tetrachloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Chloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Chloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Dibromomethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,3-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	-
1,1-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,1-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Dichloromethane (methylene chloride)	mg/kg dry wt	< 6	< 5	< 6	< 3	-
1,2-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,1-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Hexachlorobutadiene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Trichlorofluoromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Vinyl chloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
4-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
2-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
tert-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
n-Propylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-

Sample Type: Soil						
Sample Name:		B74 TP06 0.1 20-Mar-2023	B74 TP06 2.5 20-Mar-2023	B74 TP07 0.1 20-Mar-2023	B74 TP04 0.1 21-Mar-2023	B74 TP04 0.7 21-Mar-2023
Lab Number:		3211645.16	3211645.18	3211645.19	3211645.24	3211645.25
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
sec-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Styrene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 60	< 50	< 60	< 30	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 12	< 10	< 11	< 6	-
Acetone	mg/kg dry wt	< 60	< 50	< 60	< 30	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	-
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Dibromochloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-
Naphthalene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	-

Sample Name:		B74 TP04 2.1 21-Mar-2023	B66 TP01 0.1 21-Mar-2023	B66 TP01 0.9 21-Mar-2023	B66 TP01 1.1 21-Mar-2023	B63 TP03 0.1 21-Mar-2023
Lab Number:		3211645.26	3211645.27	3211645.28	3211645.29	3211645.30
Individual Tests						
Dry Matter	g/100g as rcvd	61	90	61	-	91
Total Recoverable Beryllium	mg/kg dry wt	-	< 0.2	0.6	1.4	0.2
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	-	< 2	< 2	6	2
Total Recoverable Boron	mg/kg dry wt	-	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	-	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	-	6	6	12	4
Total Recoverable Copper	mg/kg dry wt	-	870	13	44	4
Total Recoverable Lead	mg/kg dry wt	-	12.1	16.9	15.5	4.3
Total Recoverable Mercury	mg/kg dry wt	-	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	-	2	3	7	3
Total Recoverable Zinc	mg/kg dry wt	-	40	32	61	22
BTEX in Soil by Headspace GC-MS						
Benzene	mg/kg dry wt	-	< 0.05	-	-	-
Toluene	mg/kg dry wt	-	< 0.05	-	-	-
Ethylbenzene	mg/kg dry wt	-	< 0.05	-	-	-
m&p-Xylene	mg/kg dry wt	-	< 0.10	-	-	-
o-Xylene	mg/kg dry wt	-	< 0.05	-	-	-
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	2.9	< 0.4	-	< 0.3
1-Methylnaphthalene	mg/kg dry wt	-	< 0.011	< 0.017	-	< 0.011
2-Methylnaphthalene	mg/kg dry wt	-	< 0.011	< 0.017	-	< 0.011
Acenaphthylene	mg/kg dry wt	-	< 0.011	< 0.017	-	< 0.011
Acenaphthene	mg/kg dry wt	-	< 0.011	< 0.017	-	< 0.011
Anthracene	mg/kg dry wt	-	< 0.011	< 0.017	-	< 0.011
Benzo[a]anthracene	mg/kg dry wt	-	0.22	< 0.017	-	< 0.011
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	0.35	< 0.017	-	< 0.011
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	0.51	< 0.039	-	< 0.026
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	0.51	< 0.039	-	< 0.026
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	0.41	< 0.017	-	< 0.011
Benzo[e]pyrene	mg/kg dry wt	-	0.21	< 0.017	-	< 0.011

Sample Type: Soil						
Sample Name:		B74 TP04 2.1 21-Mar-2023	B66 TP01 0.1 21-Mar-2023	B66 TP01 0.9 21-Mar-2023	B66 TP01 1.1 21-Mar-2023	B63 TP03 0.1 21-Mar-2023
Lab Number:		3211645.26	3211645.27	3211645.28	3211645.29	3211645.30
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Benzo[g,h,i]perylene	mg/kg dry wt	-	0.25	< 0.017	-	< 0.011
Benzo[k]fluoranthene	mg/kg dry wt	-	0.177	< 0.017	-	< 0.011
Chrysene	mg/kg dry wt	-	0.27	< 0.017	-	< 0.011
Dibenzo[a,h]anthracene	mg/kg dry wt	-	0.053	< 0.017	-	< 0.011
Fluoranthene	mg/kg dry wt	-	0.29	< 0.017	-	< 0.011
Fluorene	mg/kg dry wt	-	< 0.011	< 0.017	-	< 0.011
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	0.26	< 0.017	-	< 0.011
Naphthalene	mg/kg dry wt	-	< 0.06	< 0.09	-	< 0.06
Perylene	mg/kg dry wt	-	0.085	< 0.017	-	< 0.011
Phenanthrene	mg/kg dry wt	-	0.015	< 0.017	-	< 0.011
Pyrene	mg/kg dry wt	-	0.29	< 0.017	-	< 0.011
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	< 20	< 30	-	< 20
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	-	< 20
C15 - C36	mg/kg dry wt	< 40	78	< 40	-	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	< 80	< 90	-	< 80
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.3	-	-	-	< 0.16
Ethylbenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Toluene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
m&p-Xylene	mg/kg dry wt	< 0.6	-	-	-	< 0.4
o-Xylene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Carbon tetrachloride	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Chloroethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Chloromethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	-	-	-	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Dibromomethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,3-Dichloropropane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	-	-	-	< 0.5
1,1-Dichloroethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,2-Dichloroethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,1-Dichloroethene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	< 6	-	-	-	< 4
1,2-Dichloropropane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,1-Dichloropropene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Hexachlorobutadiene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Trichlorofluoromethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	-	-	-	< 0.5

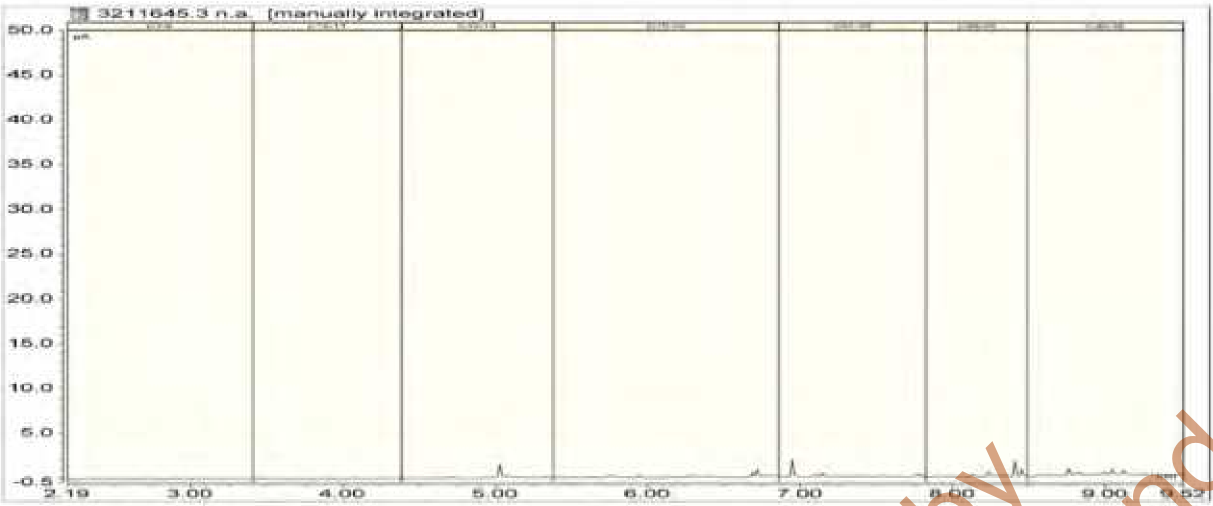
Sample Type: Soil						
Sample Name:		B74 TP04 2.1 21-Mar-2023	B66 TP01 0.1 21-Mar-2023	B66 TP01 0.9 21-Mar-2023	B66 TP01 1.1 21-Mar-2023	B63 TP03 0.1 21-Mar-2023
Lab Number:		3211645.26	3211645.27	3211645.28	3211645.29	3211645.30
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Vinyl chloride	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
4-Chlorotoluene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
2-Chlorotoluene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
tert-Butylbenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
n-Propylbenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
sec-Butylbenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Styrene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 60	-	-	-	< 40
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 12	-	-	-	< 7
Acetone	mg/kg dry wt	< 60	-	-	-	< 40
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	-	-	-	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Dibromochloromethane	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	-	-	-	< 0.3
Naphthalene	mg/kg dry wt	< 0.3	-	-	-	< 0.3

Sample Name:		B63 TP04 0.2 21-Mar-2023
Lab Number:		3211645.32
Individual Tests		
Dry Matter	g/100g as rcvd	72
Total Recoverable Beryllium	mg/kg dry wt	0.7
8 Heavy metals plus Boron		
Total Recoverable Arsenic	mg/kg dry wt	3
Total Recoverable Boron	mg/kg dry wt	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10
Total Recoverable Chromium	mg/kg dry wt	8
Total Recoverable Copper	mg/kg dry wt	10
Total Recoverable Lead	mg/kg dry wt	16.5
Total Recoverable Mercury	mg/kg dry wt	< 0.10
Total Recoverable Nickel	mg/kg dry wt	4
Total Recoverable Zinc	mg/kg dry wt	37

Sample Type: Soil		
	Sample Name:	B63 TP04 0.2 21-Mar-2023
	Lab Number:	3211645.32
Polycyclic Aromatic Hydrocarbons Screening in Soil*		
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.014
2-Methylnaphthalene	mg/kg dry wt	< 0.014
Acenaphthylene	mg/kg dry wt	< 0.014
Acenaphthene	mg/kg dry wt	< 0.014
Anthracene	mg/kg dry wt	< 0.014
Benzo[a]anthracene	mg/kg dry wt	< 0.014
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.014
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.033
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.033
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.014
Benzo[e]pyrene	mg/kg dry wt	< 0.014
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.014
Benzo[k]fluoranthene	mg/kg dry wt	< 0.014
Chrysene	mg/kg dry wt	< 0.014
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.014
Fluoranthene	mg/kg dry wt	< 0.014
Fluorene	mg/kg dry wt	< 0.014
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.014
Naphthalene	mg/kg dry wt	< 0.07
Perylene	mg/kg dry wt	< 0.014
Phenanthrene	mg/kg dry wt	< 0.014
Pyrene	mg/kg dry wt	< 0.014
Total Petroleum Hydrocarbons in Soil		
C7 - C9	mg/kg dry wt	< 20
C10 - C14	mg/kg dry wt	< 20
C15 - C36	mg/kg dry wt	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 80
BTEX in VOC Soils by Headspace GC-MS		
Benzene	mg/kg dry wt	< 0.3
Ethylbenzene	mg/kg dry wt	< 0.3
Toluene	mg/kg dry wt	< 0.3
m&p-Xylene	mg/kg dry wt	< 0.5
o-Xylene	mg/kg dry wt	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS		
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3
Carbon tetrachloride	mg/kg dry wt	< 0.3
Chloroethane	mg/kg dry wt	< 0.3
Chloromethane	mg/kg dry wt	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3
Dibromomethane	mg/kg dry wt	< 0.3
1,3-Dichloropropane	mg/kg dry wt	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	< 0.5
1,1-Dichloroethane	mg/kg dry wt	< 0.3
1,2-Dichloroethane	mg/kg dry wt	< 0.3
1,1-Dichloroethene	mg/kg dry wt	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	< 5
1,2-Dichloropropane	mg/kg dry wt	< 0.3
1,1-Dichloropropene	mg/kg dry wt	< 0.3

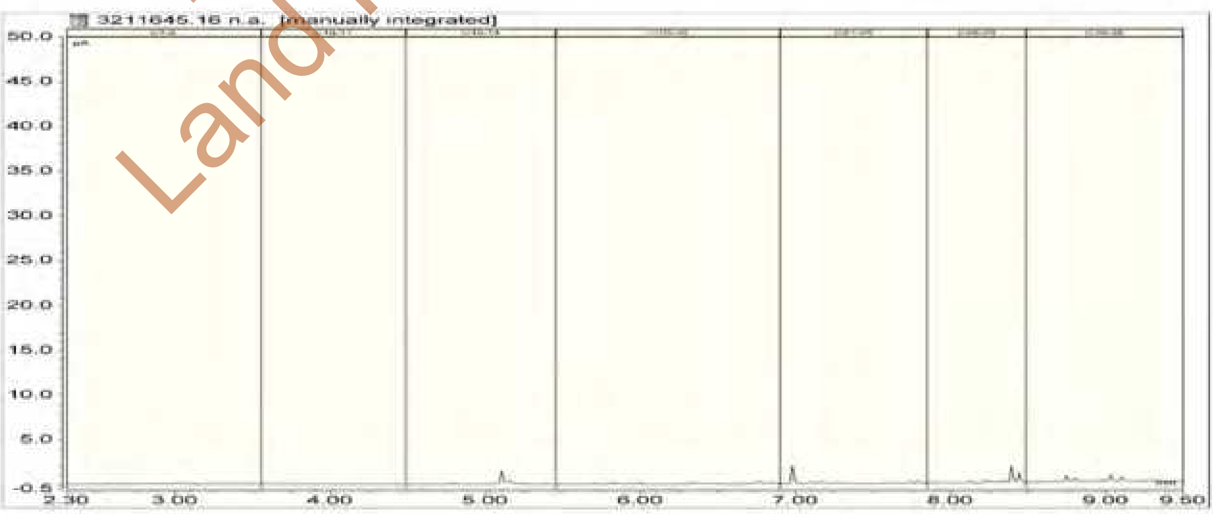
Sample Type: Soil		
	Sample Name:	B63 TP04 0.2 21-Mar-2023
	Lab Number:	3211645.32
Halogenated Aliphatics in VOC Soils by Headspace GC-MS		
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3
Hexachlorobutadiene	mg/kg dry wt	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3
Trichlorofluoromethane	mg/kg dry wt	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3
Vinyl chloride	mg/kg dry wt	< 0.3
Haloaromatics in VOC Soils by Headspace GC-MS		
Bromobenzene	mg/kg dry wt	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3
4-Chlorotoluene	mg/kg dry wt	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3
2-Chlorotoluene	mg/kg dry wt	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS		
n-Butylbenzene	mg/kg dry wt	< 0.3
tert-Butylbenzene	mg/kg dry wt	< 0.3
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3
n-Propylbenzene	mg/kg dry wt	< 0.3
sec-Butylbenzene	mg/kg dry wt	< 0.3
Styrene	mg/kg dry wt	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3
Ketones in VOC Soils by Headspace GC-MS		
2-Butanone (MEK)	mg/kg dry wt	< 50
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 9
Acetone	mg/kg dry wt	< 50
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS		
Bromodichloromethane	mg/kg dry wt	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3
Dibromochloromethane	mg/kg dry wt	< 0.3
Other VOC in Soils by Headspace GC-MS		
Carbon disulphide	mg/kg dry wt	< 0.3
Naphthalene	mg/kg dry wt	< 0.3

3211645.3
SB4 TP02 0.2 20-Mar-2023
Client Chromatogram for TPH by FID

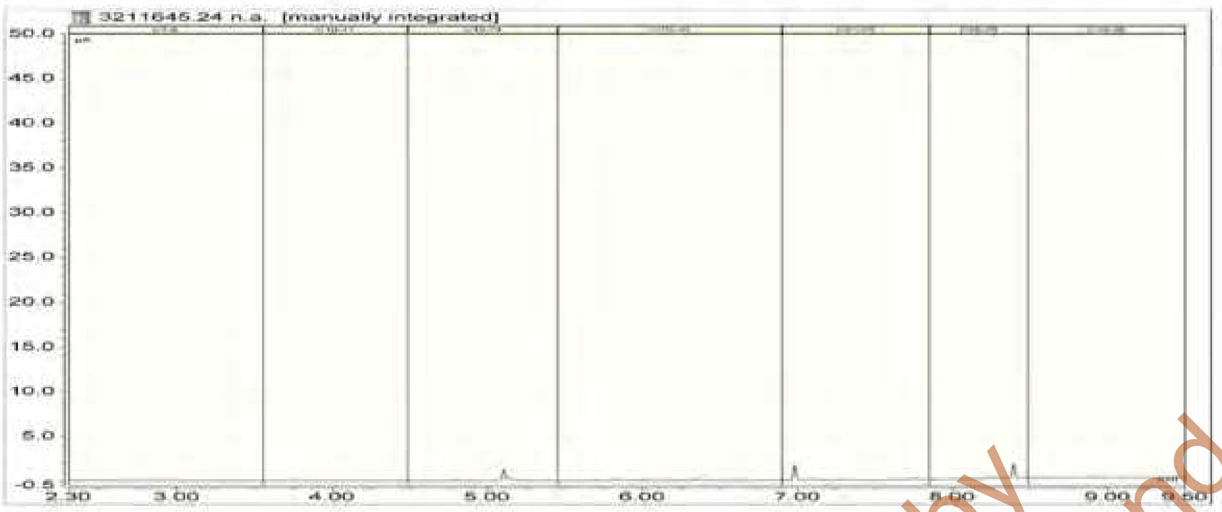


3211645.5
SB4 TP03 0.1 20-Mar-2023
Client Chromatogram for TPH by FID

3211645.16
B74 TP06 0.1 20-Mar-2023
Client Chromatogram for TPH by FID



3211645.24
B74 TP04 0.1 21-Mar-2023
Client Chromatogram for TPH by FID



3211645.27
B66 TP01 0.1 21-Mar-2023
Client Chromatogram for TPH by FID

Analyst's Comments

Amended Report: This certificate of analysis replaces report '3211645-SPv2' issued on 06-Apr-2023 at 2:22 pm.
Reason for amendment: Metals testing added.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1, 3-5, 7, 13, 27-30, 32
Total of Reported PAHs in Soil	Sonication extraction, GC-MS analysis. In-house based on US EPA 8270.	0.03 mg/kg dry wt	1-8, 10, 13, 27-28, 30, 32
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	1-8, 10, 13, 16, 18-19, 24-28, 30, 32

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Total Recoverable Beryllium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.2 mg/kg dry wt	1, 3-5, 7, 13, 27-30, 32
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	BaP Potency Equivalence calculated from; Benzo(a)anthracene x 0.1 + Benzo(b)fluoranthene x 0.1 + Benzo(j)fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Benzo(a)pyrene x 1.0 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Fluoranthene x 0.01 + Indeno(1,2,3-c,d)pyrene x 0.1. Ministry for the Environment. 2011. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.	0.024 mg/kg dry wt	1-8, 10, 13, 27-28, 30, 32
Benzo[a]pyrene Toxic Equivalence (TEF)*	Benzo[a]pyrene Toxic Equivalence (TEF) calculated from; Benzo[a]pyrene x 1.0 + Benzo(a)anthracene x 0.1 + Benzo(b) fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Indeno(1,2,3-c,d)pyrene x 0.1. Guidelines for assessing and managing contaminated gasworks sites in New Zealand (GMG) (MfE, 1997).	0.024 mg/kg dry wt	1-8, 10, 13, 27-28, 30, 32
TPH Oil Industry Profile + PAHscreen	Sonication extraction, GC-FID and GC-MS analysis. Tested on as received sample. In-house based on US EPA 8015 and US EPA 8270.	0.010 - 70 mg/kg dry wt	1-8, 10, 13, 28, 30, 32
8 Heavy metals plus Boron	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 20 mg/kg dry wt	1, 3-5, 7, 13, 27-30, 32
BTEX in Soil by Headspace GC-MS	Solvent extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.05 - 0.10 mg/kg dry wt	27
Polycyclic Aromatic Hydrocarbons Screening in Soil*	Sonication extraction, GC-MS analysis. Tested on as received sample. In-house based on US EPA 8270.	0.010 - 0.05 mg/kg dry wt	27
Polychlorinated Biphenyls Screening in Soil*	Sonication extraction, GC-MS analysis. Tested on dried sample. In-house based on US EPA 8270.	0.00000020 - 0.2 mg/kg dry wt	1, 3, 5
Volatile Organic Compounds Screening in Soil by Headspace GC-MS	Sonication extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.13 - 30 mg/kg dry wt	16, 18-19, 24, 26, 30, 32
Total Petroleum Hydrocarbons in Soil			
Client Chromatogram for TPH by FID	Small peaks associated with QC compounds may be visible in chromatograms with low TPH concentrations. QC peaks are as follows: one peak in the C12 - 14 band, the C21 - 25 band and the C30 - 36 band. All QC peaks are corrected for in the reported TPH concentrations.	-	3, 5, 16, 24, 27
C7 - C9	Solvent extraction, GC-FID analysis. In-house based on US EPA 8015.	20 mg/kg dry wt	1-8, 10, 13, 16, 18-19, 24-28, 30, 32
C10 - C14	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	20 mg/kg dry wt	1-8, 10, 13, 16, 18-19, 24-28, 30, 32
C15 - C36	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	40 mg/kg dry wt	1-8, 10, 13, 16, 18-19, 24-28, 30, 32
Total hydrocarbons (C7 - C36)	Calculation: Sum of carbon bands from C7 to C36. In-house based on US EPA 8015.	70 mg/kg dry wt	1-8, 10, 13, 16, 18-19, 24-28, 30, 32

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 24-Mar-2023 and 16-Jun-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Kim Harrison MSc
Client Services Manager - Environmental

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3214115	SPv3
Contact:	David Jackson	**Date Received:**	24-Mar-2023	
	C/- GHD Limited	**Date Reported:**	16-Jun-2023	**(Amended)**
	PO Box 660	**Quote No:**	124299	
	Waikato Mail Centre	**Order No:**	12559090	
	Hamilton 3240	**Client Reference:**	12559090	
		Submitted By:	David Jackson	

Sample Type: Soil

Sample Name:		WD2 TP09 0.1 22-Mar-2023	WD2 TP08 0.2 22-Mar-2023	WD2 TP06 0.1 22-Mar-2023	WD2 TP05 0.1 22-Mar-2023	WD2 TP04 0.1 22-Mar-2023
Lab Number:		3214115.1	3214115.4	3214115.6	3214115.8	3214115.10
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	0.8	0.9	0.9	0.8	0.7
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	16	16	16	4	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.26	0.30	0.30	0.14	0.15
Total Recoverable Chromium	mg/kg dry wt	9	9	10	8	8
Total Recoverable Copper	mg/kg dry wt	23	24	28	18	22
Total Recoverable Lead	mg/kg dry wt	39	44	43	42	89
Total Recoverable Mercury	mg/kg dry wt	0.14	0.14	0.17	< 0.10	0.10
Total Recoverable Nickel	mg/kg dry wt	5	5	5	4	4
Total Recoverable Zinc	mg/kg dry wt	93	81	79	78	79

Sample Name:		WD2 TP03 0.1 22-Mar-2023	WD2 TP02 0.1 22-Mar-2023	WD2 TP01 0.1 22-Mar-2023	B59 TP01 0.1 23-Mar-2023	B59 TP01 0.6 23-Mar-2023
Lab Number:		3214115.14	3214115.16	3214115.18	3214115.22	3214115.23
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	-	91	71
Total Recoverable Beryllium	mg/kg dry wt	0.9	0.7	0.7	-	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	8	4	5	-	-
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	-	-
Total Recoverable Cadmium	mg/kg dry wt	0.29	0.20	0.14	-	-
Total Recoverable Chromium	mg/kg dry wt	9	8	9	-	-
Total Recoverable Copper	mg/kg dry wt	23	15	16	-	-
Total Recoverable Lead	mg/kg dry wt	45	35	41	-	-
Total Recoverable Mercury	mg/kg dry wt	0.15	0.12	0.12	-	-
Total Recoverable Nickel	mg/kg dry wt	5	4	4	-	-
Total Recoverable Zinc	mg/kg dry wt	94	60	62	-	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	-	-	< 0.011	< 0.014
alpha-BHC	mg/kg dry wt	-	-	-	< 0.011	< 0.014
beta-BHC	mg/kg dry wt	-	-	-	< 0.011	< 0.014
delta-BHC	mg/kg dry wt	-	-	-	< 0.011	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	< 0.011	< 0.014
cis-Chlordane	mg/kg dry wt	-	-	-	< 0.011	< 0.014
trans-Chlordane	mg/kg dry wt	-	-	-	< 0.011	< 0.014
2,4'-DDD	mg/kg dry wt	-	-	-	0.015	< 0.014
4,4'-DDD	mg/kg dry wt	-	-	-	0.055	< 0.014

Sample Type: Soil						
Sample Name:		WD2 TP03 0.1 22-Mar-2023	WD2 TP02 0.1 22-Mar-2023	WD2 TP01 0.1 22-Mar-2023	B59 TP01 0.1 23-Mar-2023	B59 TP01 0.6 23-Mar-2023
Lab Number:		3214115.14	3214115.16	3214115.18	3214115.22	3214115.23
Organochlorine Pesticides Screening in Soil						
2,4'-DDE	mg/kg dry wt	-	-	-	< 0.011	< 0.014
4,4'-DDE	mg/kg dry wt	-	-	-	0.114	< 0.014
2,4'-DDT	mg/kg dry wt	-	-	-	0.043	< 0.014
4,4'-DDT	mg/kg dry wt	-	-	-	0.24	< 0.014
Total DDT Isomers	mg/kg dry wt	-	-	-	0.46	< 0.09
Dieldrin	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Endosulfan I	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Endosulfan II	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Endosulfan sulphate	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Endrin	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Endrin aldehyde	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Endrin ketone	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Heptachlor	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.011	< 0.014
Methoxychlor	mg/kg dry wt	-	-	-	< 0.011	< 0.014

Sample Name:		B59 TP07 0.1 23-Mar-2023	B74 TP01 0.1 23-Mar-2023	B74 TP02 0.1 23-Mar-2023	B74 TP02 0.5 23-Mar-2023	B74 TP02 1.9 23-Mar-2023
Lab Number:		3214115.24	3214115.26	3214115.28	3214115.29	3214115.31
Individual Tests						
Dry Matter	g/100g as rcvd	90	62	70	59	64
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.011	-	-	-	-
alpha-BHC	mg/kg dry wt	< 0.011	-	-	-	-
beta-BHC	mg/kg dry wt	< 0.011	-	-	-	-
delta-BHC	mg/kg dry wt	< 0.011	-	-	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.011	-	-	-	-
cis-Chlordane	mg/kg dry wt	< 0.011	-	-	-	-
trans-Chlordane	mg/kg dry wt	< 0.011	-	-	-	-
2,4'-DDD	mg/kg dry wt	< 0.011	-	-	-	-
4,4'-DDD	mg/kg dry wt	< 0.011	-	-	-	-
2,4'-DDE	mg/kg dry wt	< 0.011	-	-	-	-
4,4'-DDE	mg/kg dry wt	< 0.011	-	-	-	-
2,4'-DDT	mg/kg dry wt	< 0.011	-	-	-	-
4,4'-DDT	mg/kg dry wt	< 0.011	-	-	-	-
Total DDT Isomers	mg/kg dry wt	< 0.07	-	-	-	-
Dieldrin	mg/kg dry wt	< 0.011	-	-	-	-
Endosulfan I	mg/kg dry wt	< 0.011	-	-	-	-
Endosulfan II	mg/kg dry wt	< 0.011	-	-	-	-
Endosulfan sulphate	mg/kg dry wt	< 0.011	-	-	-	-
Endrin	mg/kg dry wt	< 0.011	-	-	-	-
Endrin aldehyde	mg/kg dry wt	< 0.011	-	-	-	-
Endrin ketone	mg/kg dry wt	< 0.011	-	-	-	-
Heptachlor	mg/kg dry wt	< 0.011	-	-	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.011	-	-	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.011	-	-	-	-
Methoxychlor	mg/kg dry wt	< 0.011	-	-	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	< 30	< 20	< 30	< 30
C10 - C14	mg/kg dry wt	-	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	-	< 40	49	< 40	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	< 90	< 80	< 90	< 90
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3

Sample Type: Soil						
Sample Name:		B59 TP07 0.1 23-Mar-2023	B74 TP01 0.1 23-Mar-2023	B74 TP02 0.1 23-Mar-2023	B74 TP02 0.5 23-Mar-2023	B74 TP02 1.9 23-Mar-2023
Lab Number:		3214115.24	3214115.26	3214115.28	3214115.29	3214115.31
BTEX in VOC Soils by Headspace GC-MS						
Ethylbenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Toluene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
m&p-Xylene	mg/kg dry wt	-	< 0.6	< 0.5	-	< 0.6
o-Xylene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Carbon tetrachloride	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Chloroethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Chloromethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	< 0.5	< 0.5	-	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Dibromomethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,3-Dichloropropane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	-	< 0.5	< 0.5	-	< 0.5
1,1-Dichloroethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,2-Dichloroethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,1-Dichloroethene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	-	< 6	< 5	-	< 6
1,2-Dichloropropane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,1-Dichloropropene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
cis-1,3-Dichloropropene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Hexachlorobutadiene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Trichlorofluoromethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	-	< 0.5	< 0.5	-	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Vinyl chloride	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
4-Chlorotoluene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
2-Chlorotoluene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
tert-Butylbenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Isopropylbenzene (Cumene)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3

Sample Type: Soil						
Sample Name:		B59 TP07 0.1 23-Mar-2023	B74 TP01 0.1 23-Mar-2023	B74 TP02 0.1 23-Mar-2023	B74 TP02 0.5 23-Mar-2023	B74 TP02 1.9 23-Mar-2023
Lab Number:		3214115.24	3214115.26	3214115.28	3214115.29	3214115.31
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
n-Propylbenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
sec-Butylbenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Styrene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	< 60	< 50	-	< 60
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	< 12	< 10	-	< 11
Acetone	mg/kg dry wt	-	< 30	< 30	-	< 30
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	-	< 0.5	< 0.5	-	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Dibromochloromethane	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3
Naphthalene	mg/kg dry wt	-	< 0.3	< 0.3	-	< 0.3

Sample Name:		B74 TP02 2.1 23-Mar-2023	B74 TP03 0.1 23-Mar-2023	B74 TP03 2.2 23-Mar-2023	B68 TP01 0.2 23-Mar-2023	B68 TP01 0.6 23-Mar-2023
Lab Number:		3214115.32	3214115.33	3214115.35	3214115.37	3214115.38
Individual Tests						
Dry Matter	g/100g as rcvd	62	67	64	91	68
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	-	-	4.6	< 0.4
1-Methylnaphthalene	mg/kg dry wt	-	-	-	< 0.011	< 0.015
2-Methylnaphthalene	mg/kg dry wt	-	-	-	< 0.011	< 0.015
Acenaphthylene	mg/kg dry wt	-	-	-	0.021	< 0.015
Acenaphthene	mg/kg dry wt	-	-	-	< 0.011	< 0.015
Anthracene	mg/kg dry wt	-	-	-	0.030	< 0.015
Benzo[a]anthracene	mg/kg dry wt	-	-	-	0.41	< 0.015
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	-	0.54	< 0.015
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	-	0.80	< 0.036
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	-	0.79	< 0.035
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	-	0.64	< 0.015
Benzo[e]pyrene	mg/kg dry wt	-	-	-	0.31	< 0.015
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	-	0.33	< 0.015
Benzo[k]fluoranthene	mg/kg dry wt	-	-	-	0.25	< 0.015
Chrysene	mg/kg dry wt	-	-	-	0.37	< 0.015
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	-	0.083	< 0.015
Fluoranthene	mg/kg dry wt	-	-	-	0.56	< 0.015
Fluorene	mg/kg dry wt	-	-	-	< 0.011	< 0.015
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	-	0.36	< 0.015
Naphthalene	mg/kg dry wt	-	-	-	< 0.06	< 0.08
Perylene	mg/kg dry wt	-	-	-	0.129	< 0.015
Phenanthrene	mg/kg dry wt	-	-	-	0.054	< 0.015
Pyrene	mg/kg dry wt	-	-	-	0.47	< 0.015
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	< 30	< 30	< 20	< 30
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	< 40	< 40	< 40	82	< 40

Sample Type: Soil						
	Sample Name:	B74 TP02 2.1 23-Mar-2023	B74 TP03 0.1 23-Mar-2023	B74 TP03 2.2 23-Mar-2023	B68 TP01 0.2 23-Mar-2023	B68 TP01 0.6 23-Mar-2023
	Lab Number:	3214115.32	3214115.33	3214115.35	3214115.37	3214115.38
Total Petroleum Hydrocarbons in Soil						
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	< 90	< 90	83	< 90
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Ethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Toluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
m&p-Xylene	mg/kg dry wt	< 0.6	< 0.6	< 0.6	-	-
o-Xylene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Carbon tetrachloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Chloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Chloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dibromomethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
1,1-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dichloromethane (methylene chloride)	mg/kg dry wt	< 6	< 6	< 6	-	-
1,2-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Hexachlorobutadiene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Trichlorofluoromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Vinyl chloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
4-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
2-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-

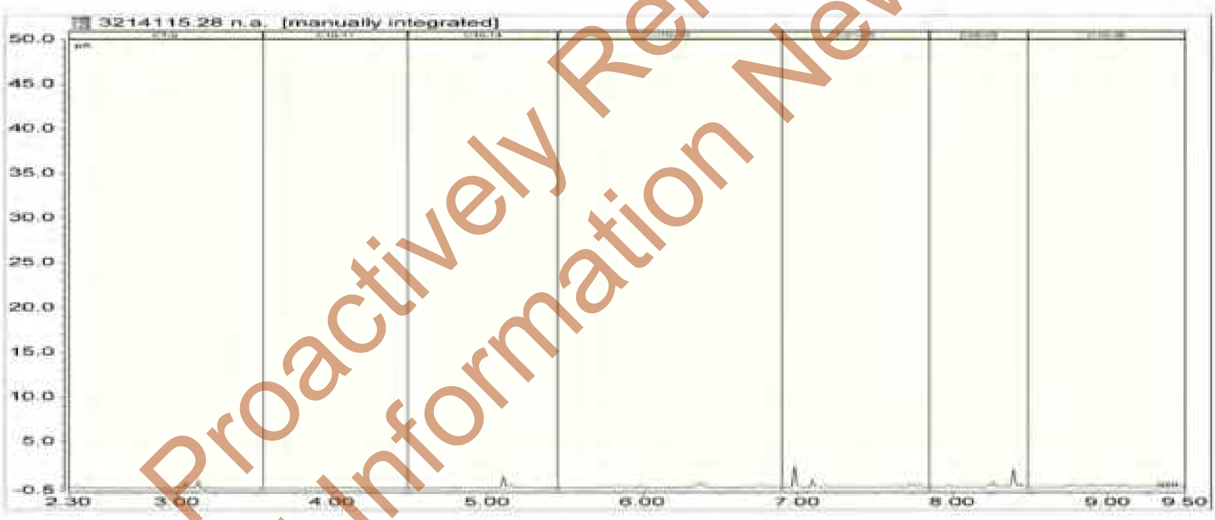
Sample Type: Soil						
Sample Name:		B74 TP02 2.1 23-Mar-2023	B74 TP03 0.1 23-Mar-2023	B74 TP03 2.2 23-Mar-2023	B68 TP01 0.2 23-Mar-2023	B68 TP01 0.6 23-Mar-2023
Lab Number:		3214115.32	3214115.33	3214115.35	3214115.37	3214115.38
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
tert-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
n-Propylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
sec-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Styrene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 60	< 60	< 60	-	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 12	< 11	< 11	-	-
Acetone	mg/kg dry wt	< 30	< 30	< 30	-	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dibromochloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Naphthalene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-

Sample Name:		B68 TP02 0.2 23-Mar-2023	B68 TP03 0.2 23-Mar-2023	B68 TP03 0.5 23-Mar-2023	B68 TP04 0.1 23-Mar-2023	B68 TP04 0.5 23-Mar-2023
Lab Number:		3214115.39	3214115.40	3214115.41	3214115.42	3214115.43
Individual Tests						
Dry Matter	g/100g as rcvd	82	72	65	91	65
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	22	1.0	< 0.4	3.7	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.012	< 0.014	< 0.015	< 0.011	< 0.015
2-Methylnaphthalene	mg/kg dry wt	< 0.012	< 0.014	< 0.015	< 0.011	< 0.015
Acenaphthylene	mg/kg dry wt	0.092	< 0.014	< 0.015	0.017	< 0.015
Acenaphthene	mg/kg dry wt	0.040	< 0.014	< 0.015	< 0.011	< 0.015
Anthracene	mg/kg dry wt	0.22	0.018	< 0.015	0.037	< 0.015
Benzo[a]anthracene	mg/kg dry wt	2.1	0.085	< 0.015	0.33	< 0.015
Benzo[a]pyrene (BAP)	mg/kg dry wt	2.2	0.084	< 0.015	0.38	< 0.015
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	3.3	0.126	< 0.036	0.56	< 0.037
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	3.3	0.124	< 0.036	0.56	< 0.036
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	2.6	0.103	< 0.015	0.45	< 0.015
Benzo[e]pyrene	mg/kg dry wt	1.27	0.049	< 0.015	0.22	< 0.015
Benzo[g,h,i]perylene	mg/kg dry wt	1.26	0.044	< 0.015	0.23	< 0.015
Benzo[k]fluoranthene	mg/kg dry wt	1.01	0.041	< 0.015	0.177	< 0.015
Chrysene	mg/kg dry wt	1.92	0.080	< 0.015	0.31	< 0.015
Dibenzo[a,h]anthracene	mg/kg dry wt	0.33	< 0.014	< 0.015	0.058	< 0.015
Fluoranthene	mg/kg dry wt	3.9	0.22	< 0.015	0.61	< 0.015
Fluorene	mg/kg dry wt	0.017	< 0.014	< 0.015	< 0.011	< 0.015
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	1.41	0.048	< 0.015	0.24	< 0.015
Naphthalene	mg/kg dry wt	< 0.06	< 0.07	< 0.08	< 0.06	< 0.08
Perylene	mg/kg dry wt	0.56	0.021	< 0.015	0.090	< 0.015
Phenanthrene	mg/kg dry wt	0.46	0.059	< 0.015	0.099	< 0.015
Pyrene	mg/kg dry wt	3.1	0.147	< 0.015	0.47	< 0.015

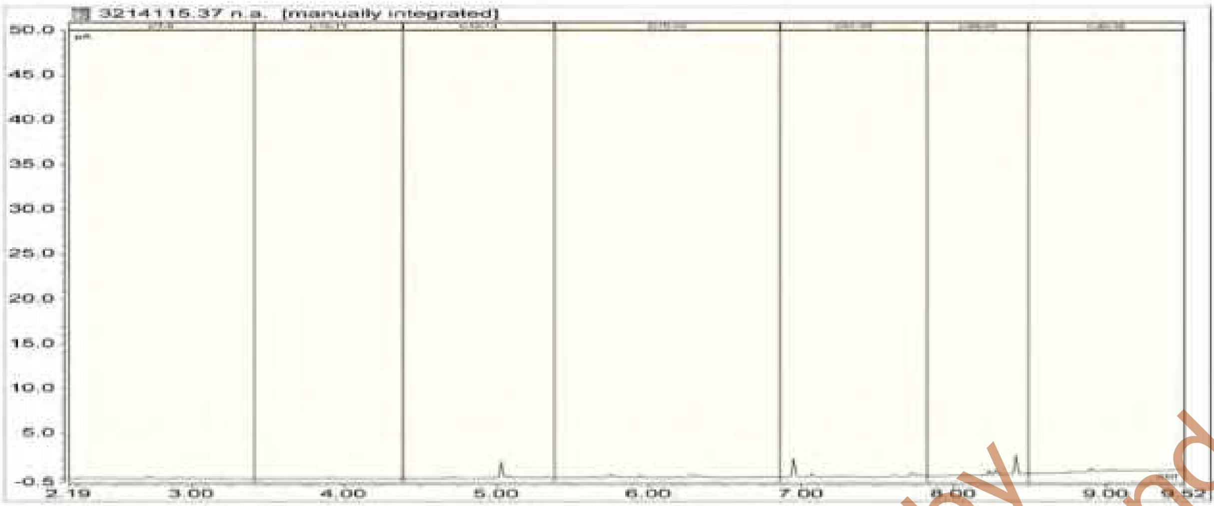
Sample Type: Soil						
Sample Name:		B68 TP02 0.2 23-Mar-2023	B68 TP03 0.2 23-Mar-2023	B68 TP03 0.5 23-Mar-2023	B68 TP04 0.1 23-Mar-2023	B68 TP04 0.5 23-Mar-2023
Lab Number:		3214115.39	3214115.40	3214115.41	3214115.42	3214115.43
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 20	< 20	< 30	< 20	< 30
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	124	< 40	< 40	83	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	127	< 80	< 90	84	< 90

Sample Name:		WD2 TP07 0.1 22-Mar-2023
Lab Number:		3214115.47
Individual Tests		
Total Recoverable Beryllium	mg/kg dry wt	0.8
8 Heavy metals plus Boron		
Total Recoverable Arsenic	mg/kg dry wt	4
Total Recoverable Boron	mg/kg dry wt	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.13
Total Recoverable Chromium	mg/kg dry wt	9
Total Recoverable Copper	mg/kg dry wt	20
Total Recoverable Lead	mg/kg dry wt	29
Total Recoverable Mercury	mg/kg dry wt	0.11
Total Recoverable Nickel	mg/kg dry wt	4
Total Recoverable Zinc	mg/kg dry wt	51

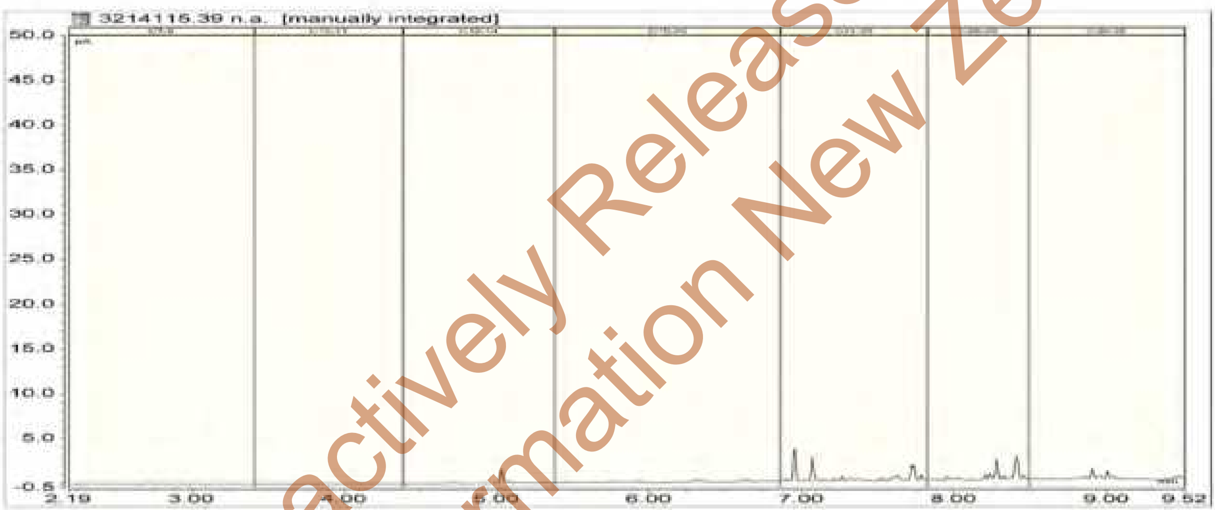
3214115.28
B74 TP02 0.1 23-Mar-2023
Client Chromatogram for TPH by FID



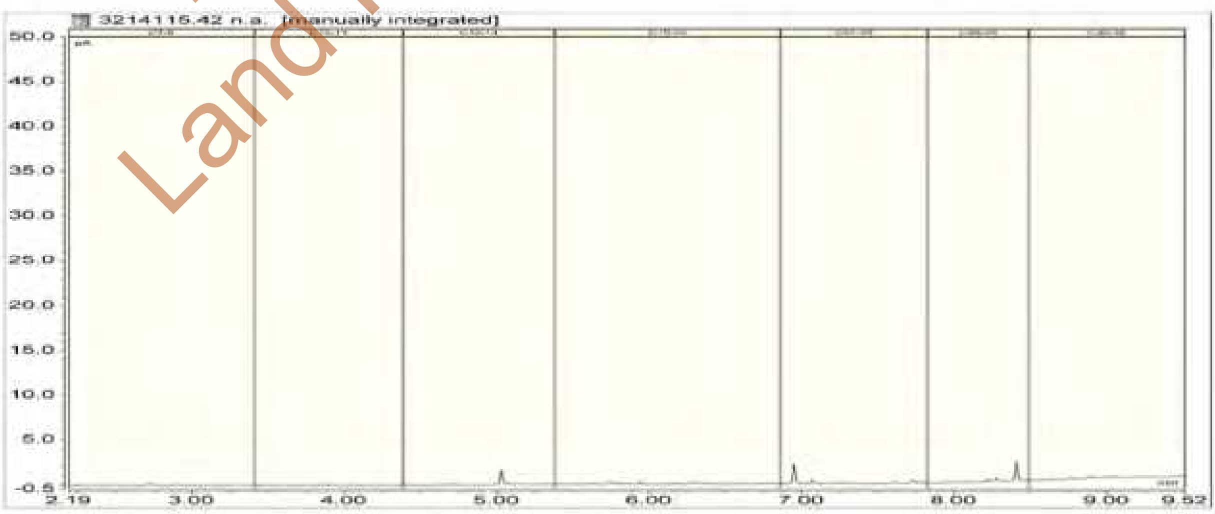
3214115.37
B68 TP01 0.2 23-Mar-2023
Client Chromatogram for TPH by FID



3214115.39
B68 TP02 0.2 23-Mar-2023
Client Chromatogram for TPH by FID



3214115.42
B68 TP04 0.1 23-Mar-2023
Client Chromatogram for TPH by FID



Analyst's Comments
Amended Report: This certificate of analysis replaces report '3214115-SPv2' issued on 06-Apr-2023 at 3:43 pm. Reason for amendment: Metals testing added.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1, 4, 6, 8, 10, 14, 16, 18, 47
Total of Reported PAHs in Soil	Sonication extraction, GC-MS analysis. In-house based on US EPA 8270.	0.03 mg/kg dry wt	37-43
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	22-24, 26, 28-29, 31-33, 35, 37-43
Total Recoverable Beryllium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.2 mg/kg dry wt	1, 4, 6, 8, 10, 14, 16, 18, 47
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	BaP Potency Equivalence calculated from; Benzo(a)anthracene x 0.1 + Benzo(b)fluoranthene x 0.1 + Benzo(j)fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Benzo(a)pyrene x 1.0 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Fluoranthene x 0.01 + Indeno(1,2,3-c,d)pyrene x 0.1. Ministry for the Environment. 2011. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.	0.024 mg/kg dry wt	37-43
Benzo[a]pyrene Toxic Equivalence (TEF)*	Benzo[a]pyrene Toxic Equivalence (TEF) calculated from; Benzo[a]pyrene x 1.0 + Benzo(a)anthracene x 0.1 + Benzo(b) fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Indeno(1,2,3-c,d)pyrene x 0.1. Guidelines for assessing and managing contaminated gasworks sites in New Zealand (GMG) (MfE, 1997).	0.024 mg/kg dry wt	37-43
TPH Oil Industry Profile + PAHscreen	Sonication extraction, GC-FID and GC-MS analysis. Tested on as received sample. In-house based on US EPA 8015 and US EPA 8270.	0.010 - 70 mg/kg dry wt	37-43
8 Heavy metals plus Boron	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 20 mg/kg dry wt	1, 4, 6, 8, 10, 14, 16, 18, 47
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	22-24
Volatile Organic Compounds Screening in Soil by Headspace GC-MS	Sonication extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.13 - 30 mg/kg dry wt	26, 28, 31-33, 35
Total Petroleum Hydrocarbons in Soil			
Client Chromatogram for TPH by FID	Small peaks associated with QC compounds may be visible in chromatograms with low TPH concentrations. QC peaks are as follows: one peak in the C12 - 14 band, the C21 - 25 band and the C30 - 36 band. All QC peaks are corrected for in the reported TPH concentrations.	-	28, 37, 39, 42
C7 - C9	Solvent extraction, GC-FID analysis. In-house based on US EPA 8015.	20 mg/kg dry wt	26, 28-29, 31-33, 35, 37-43
C10 - C14	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	20 mg/kg dry wt	26, 28-29, 31-33, 35, 37-43
C15 - C36	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	40 mg/kg dry wt	26, 28-29, 31-33, 35, 37-43
Total hydrocarbons (C7 - C36)	Calculation: Sum of carbon bands from C7 to C36. In-house based on US EPA 8015.	70 mg/kg dry wt	26, 28-29, 31-33, 35, 37-43

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 28-Mar-2023 and 16-Jun-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Kim Harrison MSc
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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3219033 SPv2
Contact:	Alex Lucas C/- GHD Limited PO Box 1746 Wellington 6140	**Date Received:**	28-Mar-2023
		Date Reported:	13-Dec-2023 **(Amended)**
		Quote No:	124299
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		B8 HA01 0.1 28-Mar-2023	B7 TP03 0.1 28-Mar-2023	B7 TP04 0.1 28-Mar-2023	SCH TP01 0.1 28-Mar-2023	SCH TP01 0.3 28-Mar-2023
Lab Number:		3219033.1	3219033.3	3219033.5	3219033.7	3219033.8
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	0.6	0.9	0.7	1.0	0.9
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	8	5	5	5	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.92	0.19	0.16	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	12	8	7	11	12
Total Recoverable Copper	mg/kg dry wt	130	185	20	33	56
Total Recoverable Lead	mg/kg dry wt	750	80	51	22	21
Total Recoverable Mercury	mg/kg dry wt	1.17	0.10	< 0.10	0.16	0.35
Total Recoverable Nickel	mg/kg dry wt	9	6	5	6	7
Total Recoverable Zinc	mg/kg dry wt	440	116	130	36	36
Asbestos in Soil						
As Received Weight Presence / Absence Testing	g	240.0	-	-	-	-
Dry Weight Presence / Absence Testing	g	171.6	-	-	-	-
<2mm Subsample Weight Presence / Absence Testing	g dry wt	52.4	-	-	-	-
Asbestos Presence / Absence from Presence / Absence Testing		Asbestos NOT detected.	-	-	-	-
Description of Asbestos Form Presence / Absence Testing		-	-	-	-	-
Asbestos in Soil Presence / Absence Testing ESdat Electronic Transfer						
Amosite Presence / Absence Testing	Detect	0	-	-	-	-
Chrysotile Presence / Absence Testing	Detect	0	-	-	-	-
Crocidolite Presence / Absence Testing	Detect	0	-	-	-	-

Sample Name:		SCH TP02 0.1 28-Mar-2023	SCH TP03 0.1 28-Mar-2023	SCH TP03 0.7 28-Mar-2023	SCH TP04 0.1 28-Mar-2023
Lab Number:		3219033.9	3219033.11	3219033.12	3219033.13
Individual Tests					
Total Recoverable Beryllium	mg/kg dry wt	1.0	1.2	1.3	0.9
8 Heavy metals plus Boron					
Total Recoverable Arsenic	mg/kg dry wt	7	6	5	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.19	0.24	0.13	0.18
Total Recoverable Chromium	mg/kg dry wt	11	10	12	10
Total Recoverable Copper	mg/kg dry wt	39	30	29	32
Total Recoverable Lead	mg/kg dry wt	75	43	18.4	56
Total Recoverable Mercury	mg/kg dry wt	0.19	0.17	0.18	0.17

Sample Type: Soil					
Sample Name:		SCH TP02 0.1 28-Mar-2023	SCH TP03 0.1 28-Mar-2023	SCH TP03 0.7 28-Mar-2023	SCH TP04 0.1 28-Mar-2023
Lab Number:		3219033.9	3219033.11	3219033.12	3219033.13
8 Heavy metals plus Boron					
Total Recoverable Nickel	mg/kg dry wt	6	6	6	6
Total Recoverable Zinc	mg/kg dry wt	100	75	45	97

Analyst's Comments

Amended Report: This certificate of analysis replaces report '3219033-SPv1' issued on 19-Sep-2023 at 1:56 pm.
Reason for amendment: 10 heavy metals added to 6 samples as requested.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1, 3, 5, 7-9, 11-13
Total Recoverable Beryllium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.2 mg/kg dry wt	1, 3, 5, 7-9, 11-13
8 Heavy metals plus Boron	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 20 mg/kg dry wt	1, 3, 5, 7-9, 11-13
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	-	1
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1
Asbestos in Soil Presence / Absence Testing ESdat Electronic Transfer			
Amosite Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Presence / Absence testing.	0 Detect	1
Chrysotile Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Presence / Absence testing.	0 Detect	1
Crocidolite Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Presence / Absence testing.	0 Detect	1

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 09-Sep-2023 and 13-Dec-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Graham Corban MSc Tech (Hons)
Client Services Manager - Environmental

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3299078 SPv6
Contact:	Adam Gray	**Date Received:**	09-Jun-2023
	C/- GHD Limited	**Date Reported:**	24-Jul-2023
	PO Box 1746	**Quote No:**	124299
	Wellington 6140	**Order No:**	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		B34 TP 01 0.10 07-Jun-2023	B34 TP 01 0.50 07-Jun-2023	B34 TP 02 0.10 07-Jun-2023	B34 TP 02 0.50 07-Jun-2023	B34 TP 03 0.10 07-Jun-2023
Lab Number:		3299078.1	3299078.2	3299078.4	3299078.5	3299078.7
Individual Tests						
Dry Matter	g/100g as rcvd	53	75	82	64	66
Total Recoverable Beryllium	mg/kg dry wt	0.9	1.3	1.1	1.3	1.1
pH*	pH Units	6.9	-	-	-	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	11	6	21	4	7
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.23	0.21	0.35	0.11	0.33
Total Recoverable Chromium	mg/kg dry wt	11	9	12	11	11
Total Recoverable Copper	mg/kg dry wt	26	26	60	18	34
Total Recoverable Lead	mg/kg dry wt	38	40	121	21	39
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.14	0.13	0.17	0.14
Total Recoverable Nickel	mg/kg dry wt	7	4	9	5	9
Total Recoverable Zinc	mg/kg dry wt	138	88	133	48	92
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		B34 TP 01 0.10 07-Jun-2023	B34 TP 01 0.50 07-Jun-2023	B34 TP 02 0.10 07-Jun-2023	B34 TP 02 0.50 07-Jun-2023	B34 TP 03 0.10 07-Jun-2023
Lab Number:		3299078.1	3299078.2	3299078.4	3299078.5	3299078.7
Acid Herbicides Screen in Soil by LCMSMS						
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
alpha-BHC	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
beta-BHC	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
delta-BHC	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
gamma-BHC (Lindane)	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
cis-Chlordane	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
trans-Chlordane	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
2,4'-DDD	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
4,4'-DDD	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
2,4'-DDE	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
4,4'-DDE	mg/kg dry wt	< 0.018	< 0.013	0.105	< 0.016	0.025
2,4'-DDT	mg/kg dry wt	< 0.018	< 0.013	0.025	< 0.016	< 0.015
4,4'-DDT	mg/kg dry wt	< 0.018	< 0.013	0.071	< 0.016	< 0.015
Total DDT Isomers	mg/kg dry wt	< 0.11	< 0.08	0.20	< 0.10	< 0.09
Dieldrin	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Endosulfan I	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Endosulfan II	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Endosulfan sulphate	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Endrin	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Endrin aldehyde	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Endrin ketone	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Heptachlor	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Heptachlor epoxide	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Hexachlorobenzene	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Methoxychlor	mg/kg dry wt	< 0.018	< 0.013	< 0.012	< 0.016	< 0.015
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Atrazine-desethyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Atrazine-desisopropyl	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Azaconazole	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Benalaxyl	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Bromacil	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Bromopropylate	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Butachlor	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Captan	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Carbaryl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Carbofuran	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Chlorfluazuron	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Chlorothalonil	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Chlorpyrifos	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Chlorpyrifos-methyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Chlortoluron	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Cyanazine	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Cyfluthrin	mg/kg dry wt	< 0.11	< 0.08	< 0.08	< 0.09	< 0.09
Cyhalothrin	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08

Sample Type: Soil						
	Sample Name:	B34 TP 01 0.10 07-Jun-2023	B34 TP 01 0.50 07-Jun-2023	B34 TP 02 0.10 07-Jun-2023	B34 TP 02 0.50 07-Jun-2023	B34 TP 03 0.10 07-Jun-2023
	Lab Number:	3299078.1	3299078.2	3299078.4	3299078.5	3299078.7
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Cypermethrin	mg/kg dry wt	< 0.3	< 0.16	< 0.15	< 0.18	< 0.18
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Diazinon	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Dichloran	mg/kg dry wt	< 0.3	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.13	< 0.09	< 0.09	< 0.11	< 0.10
Dimethoate	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Diphenylamine	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Diuron	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Fenpropimorph	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Fluazifop-butyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Fluometuron	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Flusilazole	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Fluvalinate	mg/kg dry wt	< 0.07	< 0.05	< 0.05	< 0.06	< 0.05
Furalaxyl	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Hexaconazole	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Hexazinone	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Malathion	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Metalaxyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Methamidophos	mg/kg dry wt	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Molinate	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Myclobutanil	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Naled	mg/kg dry wt	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15
Oxadiazon	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Oxyfluorfen	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Parathion-ethyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Parathion-methyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Pendimethalin	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Pirimiphos-methyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Prochloraz	mg/kg dry wt	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Prometryn	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.07	< 0.05	< 0.05	< 0.06	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Quizalofop-ethyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Simazine	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Simetryn	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Sulfentrazone	mg/kg dry wt	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.18	< 0.13	< 0.12	< 0.15	< 0.15

Sample Type: Soil						
Sample Name:		B34 TP 01 0.10 07-Jun-2023	B34 TP 01 0.50 07-Jun-2023	B34 TP 02 0.10 07-Jun-2023	B34 TP 02 0.50 07-Jun-2023	B34 TP 03 0.10 07-Jun-2023
Lab Number:		3299078.1	3299078.2	3299078.4	3299078.5	3299078.7
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Tebuconazole	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Terbacil	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Terbumeton	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Terbuthylazine	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Terbutryn	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Thiabendazole	mg/kg dry wt	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Tolylfluanid	mg/kg dry wt	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Trifluralin	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08
Vinclozolin	mg/kg dry wt	< 0.09	< 0.07	< 0.06	< 0.08	< 0.08

Sample Name:		B34 TP 03 0.50 07-Jun-2023	B34 TP 04 0.10 07-Jun-2023	B34 TP 04 0.50 07-Jun-2023	B34 TP 05 0.10 07-Jun-2023	B34 TP 05 0.50 07-Jun-2023
Lab Number:		3299078.8	3299078.10	3299078.11	3299078.13	3299078.14
Individual Tests						
Dry Matter	g/100g as rcvd	67	75	70	77	70
Total Recoverable Beryllium	mg/kg dry wt	1.1	0.5	0.7	1.2	0.6
pH*	pH Units	-	-	-	6.2	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	3	5	41	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.26	< 0.10	< 0.10	0.43	< 0.10
Total Recoverable Chromium	mg/kg dry wt	8	5	9	26	10
Total Recoverable Copper	mg/kg dry wt	26	12	17	56	11
Total Recoverable Lead	mg/kg dry wt	22	20	24	105	23
Total Recoverable Mercury	mg/kg dry wt	0.12	< 0.10	0.10	0.15	< 0.10
Total Recoverable Nickel	mg/kg dry wt	5	3	4	38	4
Total Recoverable Zinc	mg/kg dry wt	72	38	39	220	32
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		B34 TP 03 0.50 07-Jun-2023	B34 TP 04 0.10 07-Jun-2023	B34 TP 04 0.50 07-Jun-2023	B34 TP 05 0.10 07-Jun-2023	B34 TP 05 0.50 07-Jun-2023
Lab Number:		3299078.8	3299078.10	3299078.11	3299078.13	3299078.14
Acid Herbicides Screen in Soil by LCMSMS						
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
alpha-BHC	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
beta-BHC	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
delta-BHC	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
cis-Chlordane	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
trans-Chlordane	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
2,4'-DDD	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
4,4'-DDD	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
2,4'-DDE	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
4,4'-DDE	mg/kg dry wt	< 0.015	< 0.013	< 0.015	0.017	< 0.014
2,4'-DDT	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
4,4'-DDT	mg/kg dry wt	< 0.015	< 0.013	< 0.015	0.017	< 0.014
Total DDT Isomers	mg/kg dry wt	< 0.09	< 0.08	< 0.09	< 0.08	< 0.09
Dieldrin	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Endosulfan I	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Endosulfan II	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Endosulfan sulphate	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Endrin	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Endrin aldehyde	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Endrin ketone	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Heptachlor	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Heptachlor epoxide	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Hexachlorobenzene	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Methoxychlor	mg/kg dry wt	< 0.015	< 0.013	< 0.015	< 0.013	< 0.014
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Bromacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Butachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Captan	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlortoluron	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Cyfluthrin	mg/kg dry wt	< 0.09	< 0.08	< 0.09	< 0.08	< 0.09
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Cypermethrin	mg/kg dry wt	< 0.18	< 0.16	< 0.17	< 0.16	< 0.17

Sample Type: Soil

Sample Name:		B34 TP 03 0.50 07-Jun-2023	B34 TP 04 0.10 07-Jun-2023	B34 TP 04 0.50 07-Jun-2023	B34 TP 05 0.10 07-Jun-2023	B34 TP 05 0.50 07-Jun-2023
Lab Number:		3299078.8	3299078.10	3299078.11	3299078.13	3299078.14
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Diazinon	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.10	< 0.09	< 0.10	< 0.09	< 0.10
Dimethoate	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Diphenylamine	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Diuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Malathion	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Molinate	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Naled	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Prometryn	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Simazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Simetryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.13	< 0.14
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07

Sample Type: Soil

Sample Name:		B34 TP 03 0.50 07-Jun-2023	B34 TP 04 0.10 07-Jun-2023	B34 TP 04 0.50 07-Jun-2023	B34 TP 05 0.10 07-Jun-2023	B34 TP 05 0.50 07-Jun-2023
Lab Number:		3299078.8	3299078.10	3299078.11	3299078.13	3299078.14
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Terbacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07

Sample Name:		B34 TP 06 0.10 07-Jun-2023	B34 TP 06 0.50 07-Jun-2023	B34 TP 07 0.10 07-Jun-2023	B34 TP 07 0.50 07-Jun-2023	B35 TP 01 0.10 07-Jun-2023
Lab Number:		3299078.16	3299078.17	3299078.19	3299078.20	3299078.22
Individual Tests						
Dry Matter	g/100g as rcvd	71	70	80	71	76
Total Recoverable Beryllium	mg/kg dry wt	1.5	0.6	1.1	0.5	0.6
pH*	pH Units	-	-	-	-	7.6
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	8	3	8	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	23	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.35	< 0.10	0.34	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	10	9	24	9	8
Total Recoverable Copper	mg/kg dry wt	41	19	37	13	14
Total Recoverable Lead	mg/kg dry wt	187	22	49	21	29
Total Recoverable Mercury	mg/kg dry wt	0.12	0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	10	5	40	4	5
Total Recoverable Zinc	mg/kg dry wt	210	52	110	33	30
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		B34 TP 06 0.10 07-Jun-2023	B34 TP 06 0.50 07-Jun-2023	B34 TP 07 0.10 07-Jun-2023	B34 TP 07 0.50 07-Jun-2023	B35 TP 01 0.10 07-Jun-2023
Lab Number:		3299078.16	3299078.17	3299078.19	3299078.20	3299078.22
Acid Herbicides Screen in Soil by LCMSMS						
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
alpha-BHC	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
beta-BHC	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
delta-BHC	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
cis-Chlordane	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
trans-Chlordane	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
2,4'-DDD	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
4,4'-DDD	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
2,4'-DDE	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
4,4'-DDE	mg/kg dry wt	0.22	< 0.015	0.012	< 0.014	< 0.014
2,4'-DDT	mg/kg dry wt	0.023	< 0.015	< 0.013	< 0.014	< 0.014
4,4'-DDT	mg/kg dry wt	0.087	< 0.015	< 0.013	< 0.014	< 0.014
Total DDT Isomers	mg/kg dry wt	0.34	< 0.09	< 0.08	< 0.09	< 0.08
Dieldrin	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Endosulfan I	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Endosulfan II	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Endosulfan sulphate	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Endrin	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Endrin aldehyde	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Endrin ketone	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Heptachlor	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Heptachlor epoxide	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Hexachlorobenzene	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Methoxychlor	mg/kg dry wt	< 0.014	< 0.015	< 0.013	< 0.014	< 0.014
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Bromacil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Butachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Captan	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Chlortoluron	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Cyfluthrin	mg/kg dry wt	< 0.09	< 0.09	< 0.08	< 0.09	< 0.08
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Cypermethrin	mg/kg dry wt	< 0.17	< 0.17	< 0.15	< 0.17	< 0.16

Sample Type: Soil						
Sample Name:		B34 TP 06 0.10 07-Jun-2023	B34 TP 06 0.50 07-Jun-2023	B34 TP 07 0.10 07-Jun-2023	B34 TP 07 0.50 07-Jun-2023	B35 TP 01 0.10 07-Jun-2023
Lab Number:		3299078.16	3299078.17	3299078.19	3299078.20	3299078.22
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Diazinon	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.10	< 0.10	< 0.09	< 0.10	< 0.09
Dimethoate	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Diphenylamine	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Diuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Malathion	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Molinate	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Naled	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Prometryn	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Simazine	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Simetryn	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.14	< 0.14	< 0.12	< 0.14	< 0.13
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07

Sample Type: Soil						
Sample Name:		B34 TP 06 0.10 07-Jun-2023	B34 TP 06 0.50 07-Jun-2023	B34 TP 07 0.10 07-Jun-2023	B34 TP 07 0.50 07-Jun-2023	B35 TP 01 0.10 07-Jun-2023
Lab Number:		3299078.16	3299078.17	3299078.19	3299078.20	3299078.22
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Terbacil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07

Sample Name:		B35 TP 01 0.50 07-Jun-2023	B35 TP 02 0.10 07-Jun-2023	B35 TP 02 0.50 07-Jun-2023	B35 TP 03 0.10 07-Jun-2023	B35 TP 03 0.50 07-Jun-2023
Lab Number:		3299078.23	3299078.25	3299078.26	3299078.28	3299078.29
Individual Tests						
Dry Matter	g/100g as rcvd	70	87	64	78	72
Total Recoverable Beryllium	mg/kg dry wt	0.5	1.4	2.2	0.5	0.9
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	2	10	29	5
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	185	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.16	0.13	0.38	< 0.10
Total Recoverable Chromium	mg/kg dry wt	8	82	13	12	8
Total Recoverable Copper	mg/kg dry wt	9	70	22	59	9
Total Recoverable Lead	mg/kg dry wt	21	28	21	260	18.4
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.19	0.14	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	4	250	13	13	3
Total Recoverable Zinc	mg/kg dry wt	29	103	65	270	29
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		B35 TP 01 0.50 07-Jun-2023	B35 TP 02 0.10 07-Jun-2023	B35 TP 02 0.50 07-Jun-2023	B35 TP 03 0.10 07-Jun-2023	B35 TP 03 0.50 07-Jun-2023
Lab Number:		3299078.23	3299078.25	3299078.26	3299078.28	3299078.29
Acid Herbicides Screen in Soil by LCMSMS						
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
alpha-BHC	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
beta-BHC	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
delta-BHC	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
cis-Chlordane	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
trans-Chlordane	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
2,4'-DDD	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
4,4'-DDD	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
2,4'-DDE	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
4,4'-DDE	mg/kg dry wt	< 0.015	< 0.012	< 0.016	0.23	< 0.014
2,4'-DDT	mg/kg dry wt	< 0.015	< 0.012	< 0.016	0.063	< 0.014
4,4'-DDT	mg/kg dry wt	< 0.015	< 0.012	< 0.016	0.176	< 0.014
Total DDT Isomers	mg/kg dry wt	< 0.09	< 0.07	< 0.10	0.49	< 0.09
Dieldrin	mg/kg dry wt	< 0.015	< 0.012	< 0.016	0.106	< 0.014
Endosulfan I	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Endosulfan II	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Endosulfan sulphate	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Endrin	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Endrin aldehyde	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Endrin ketone	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Heptachlor	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Heptachlor epoxide	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Hexachlorobenzene	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Methoxychlor	mg/kg dry wt	< 0.015	< 0.012	< 0.016	< 0.013	< 0.014
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Azaconazole	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Benalaxyl	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Bitertanol	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Bromacil	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Bromopropylate	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Butachlor	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Captan	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Carbaryl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Carbofuran	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Chlortoluron	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Cyanazine	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Cyfluthrin	mg/kg dry wt	< 0.09	< 0.07	< 0.09	< 0.08	< 0.08
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Cypermethrin	mg/kg dry wt	< 0.17	< 0.14	< 0.18	< 0.15	< 0.16
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Diazinon	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04

Sample Type: Soil						
Sample Name:		B35 TP 01 0.50 07-Jun-2023	B35 TP 02 0.10 07-Jun-2023	B35 TP 02 0.50 07-Jun-2023	B35 TP 03 0.10 07-Jun-2023	B35 TP 03 0.50 07-Jun-2023
Lab Number:		3299078.23	3299078.25	3299078.26	3299078.28	3299078.29
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.10	< 0.09	< 0.11	< 0.09	< 0.10
Dimethoate	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Diphenylamine	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Diuron	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Fluometuron	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Flusilazole	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.06	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Hexaconazole	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Hexazinone	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.3	< 0.4	< 0.3	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Malathion	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Metalaxyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Methamidophos	mg/kg dry wt	< 0.4	< 0.3	< 0.4	< 0.3	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Molinate	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Myclobutanil	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Naled	mg/kg dry wt	< 0.4	< 0.3	< 0.4	< 0.3	< 0.4
Norflurazon	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Oxadiazon	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Pendimethalin	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Prochloraz	mg/kg dry wt	< 0.4	< 0.3	< 0.4	< 0.3	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Prometryn	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.06	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Simazine	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Simetryn	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.3	< 0.4	< 0.3	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.14	< 0.11	< 0.15	< 0.12	< 0.14
Tebuconazole	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Terbacil	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Terbumeton	mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07

Sample Type: Soil

Sample Name:	B35 TP 01 0.50 07-Jun-2023	B35 TP 02 0.10 07-Jun-2023	B35 TP 02 0.50 07-Jun-2023	B35 TP 03 0.10 07-Jun-2023	B35 TP 03 0.50 07-Jun-2023
Lab Number:	3299078.23	3299078.25	3299078.26	3299078.28	3299078.29
Organonitro&phosphorus Pesticides Screen in Soil by GCMS					
Terbuthylazine mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Terbuthylazine-desethyl mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Terbutryn mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Thiabendazole mg/kg dry wt	< 0.4	< 0.3	< 0.4	< 0.3	< 0.4
Thiobencarb mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Tolylfluanid mg/kg dry wt	< 0.04	< 0.03	< 0.04	< 0.03	< 0.04
Triazophos mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Trifluralin mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07
Vinclozolin mg/kg dry wt	< 0.07	< 0.06	< 0.08	< 0.06	< 0.07

Sample Name:	B35 TP 04 0.10 07-Jun-2023	B35 TP 04 0.50 07-Jun-2023	B35 TP 05 0.10 07-Jun-2023	B35 TP 05 0.50 07-Jun-2023	BWL TP 01 0.10 08-Jun-2023
Lab Number:	3299078.31	3299078.32	3299078.34	3299078.35	3299078.37
Individual Tests					
Dry Matter g/100g as rcvd	73	72	89	71	65
Total Recoverable Beryllium mg/kg dry wt	0.8	0.9	0.3	1.1	1.0
pH* pH Units	-	-	-	-	5.6
8 Heavy metals plus Boron					
Total Recoverable Arsenic mg/kg dry wt	5	5	19	7	4
Total Recoverable Boron mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium mg/kg dry wt	< 0.10	0.17	< 0.10	< 0.10	0.14
Total Recoverable Chromium mg/kg dry wt	7	9	5	11	8
Total Recoverable Copper mg/kg dry wt	13	19	9	10	17
Total Recoverable Lead mg/kg dry wt	30	35	69	23	34
Total Recoverable Mercury mg/kg dry wt	< 0.10	0.18	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel mg/kg dry wt	5	4	2	4	4
Total Recoverable Zinc mg/kg dry wt	66	59	53	37	74
Acid Herbicides Screen in Soil by LCMSMS					
Acifluorfen mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T) mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		B35 TP 04 0.10 07-Jun-2023	B35 TP 04 0.50 07-Jun-2023	B35 TP 05 0.10 07-Jun-2023	B35 TP 05 0.50 07-Jun-2023	BWL TP 01 0.10 08-Jun-2023
Lab Number:		3299078.31	3299078.32	3299078.34	3299078.35	3299078.37
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
alpha-BHC	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
beta-BHC	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
delta-BHC	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
gamma-BHC (Lindane)	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
cis-Chlordane	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
trans-Chlordane	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
2,4'-DDD	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
4,4'-DDD	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
2,4'-DDE	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
4,4'-DDE	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
2,4'-DDT	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
4,4'-DDT	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Total DDT Isomers	mg/kg dry wt	< 0.08	< 0.09	< 0.07	< 0.09	< 0.09
Dieldrin	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Endosulfan I	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Endosulfan II	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Endosulfan sulphate	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Endrin	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Endrin aldehyde	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Endrin ketone	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Heptachlor	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Heptachlor epoxide	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Hexachlorobenzene	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Methoxychlor	mg/kg dry wt	< 0.014	< 0.014	< 0.011	< 0.014	< 0.015
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Atrazine-desisopropyl	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Bromacil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Butachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Captan	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Chlortoluron	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Cyfluthrin	mg/kg dry wt	< 0.08	< 0.08	< 0.07	< 0.09	< 0.09
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Cypermethrin	mg/kg dry wt	< 0.16	< 0.16	< 0.13	< 0.17	< 0.18
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Diazinon	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Sample Type: Soil

Sample Name:		B35 TP 04 0.10 07-Jun-2023	B35 TP 04 0.50 07-Jun-2023	B35 TP 05 0.10 07-Jun-2023	B35 TP 05 0.50 07-Jun-2023	BWL TP 01 0.10 08-Jun-2023
Lab Number:		3299078.31	3299078.32	3299078.34	3299078.35	3299078.37
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.09	< 0.10	< 0.09	< 0.10	< 0.11
Dimethoate	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Diphenylamine	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Diuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.06
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Malathion	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Molinate	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Naled	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Prometryn	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.06
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Simazine	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Simetryn	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.13	< 0.13	< 0.11	< 0.14	< 0.15
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Terbacil	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08

Sample Type: Soil						
Sample Name:		B35 TP 04 0.10 07-Jun-2023	B35 TP 04 0.50 07-Jun-2023	B35 TP 05 0.10 07-Jun-2023	B35 TP 05 0.50 07-Jun-2023	BWL TP 01 0.10 08-Jun-2023
Lab Number:		3299078.31	3299078.32	3299078.34	3299078.35	3299078.37
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	< 0.3	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.07	< 0.08

Sample Name:		BWL TP 01 0.50 08-Jun-2023	BWL TP 02 0.10 08-Jun-2023	BWL TP 02 0.50 08-Jun-2023	BWL TP 03 0.10 08-Jun-2023	BWL TP 03 0.50 08-Jun-2023
Lab Number:		3299078.38	3299078.39	3299078.40	3299078.42	3299078.43
Individual Tests						
Dry Matter	g/100g as rcvd	65	71	-	65	66
Total Recoverable Beryllium	mg/kg dry wt	1.1	0.7	0.3	0.8	0.6
pH*	pH Units	5.7	-	-	-	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	2	4	2	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.17	< 0.10	0.20	< 0.10
Total Recoverable Chromium	mg/kg dry wt	6	8	5	9	7
Total Recoverable Copper	mg/kg dry wt	10	16	5	21	13
Total Recoverable Lead	mg/kg dry wt	15.0	33	17.1	30	18.2
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.12	< 0.10	0.15	< 0.10
Total Recoverable Nickel	mg/kg dry wt	3	5	3	5	4
Total Recoverable Zinc	mg/kg dry wt	51	77	21	72	39
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	-	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		BWL TP 01 0.50 08-Jun-2023	BWL TP 02 0.10 08-Jun-2023	BWL TP 02 0.50 08-Jun-2023	BWL TP 03 0.10 08-Jun-2023	BWL TP 03 0.50 08-Jun-2023
Lab Number:		3299078.38	3299078.39	3299078.40	3299078.42	3299078.43
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
alpha-BHC	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
beta-BHC	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
delta-BHC	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
gamma-BHC (Lindane)	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
cis-Chlordane	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
trans-Chlordane	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
2,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
4,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
2,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
4,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
2,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
4,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Total DDT Isomers	mg/kg dry wt	< 0.09	< 0.09	-	< 0.09	< 0.09
Dieldrin	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Endosulfan I	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Endosulfan II	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Endosulfan sulphate	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Endrin	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Endrin aldehyde	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Endrin ketone	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Heptachlor	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Heptachlor epoxide	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Hexachlorobenzene	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Methoxychlor	mg/kg dry wt	< 0.015	< 0.014	-	< 0.015	< 0.015
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Alachlor	mg/kg dry wt	< 0.05	< 0.05	-	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Bromacil	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Butachlor	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Captan	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Chlortoluron	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Cyfluthrin	mg/kg dry wt	< 0.09	< 0.09	-	< 0.09	< 0.09
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Cypermethrin	mg/kg dry wt	< 0.18	< 0.17	-	< 0.18	< 0.18
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Diazinon	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Dichloran	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2

Sample Type: Soil						
	Sample Name:	BWL TP 01 0.50 08-Jun-2023	BWL TP 02 0.10 08-Jun-2023	BWL TP 02 0.50 08-Jun-2023	BWL TP 03 0.10 08-Jun-2023	BWL TP 03 0.50 08-Jun-2023
	Lab Number:	3299078.38	3299078.39	3299078.40	3299078.42	3299078.43
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	-	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.10	< 0.10	-	< 0.10	< 0.10
Dimethoate	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Diphenylamine	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Diuron	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	-	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	-	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Malathion	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	-	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	-	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Molinate	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Naled	mg/kg dry wt	< 0.4	< 0.4	-	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Permethrin	mg/kg dry wt	< 0.03	< 0.03	-	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	-	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Prometryn	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Propanil	mg/kg dry wt	< 0.2	< 0.2	-	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	-	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Simazine	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Simetryn	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	-	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.14	< 0.14	-	< 0.15	< 0.14
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Terbacil	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07

Sample Type: Soil						
Sample Name:		BWL TP 01 0.50 08-Jun-2023	BWL TP 02 0.10 08-Jun-2023	BWL TP 02 0.50 08-Jun-2023	BWL TP 03 0.10 08-Jun-2023	BWL TP 03 0.50 08-Jun-2023
Lab Number:		3299078.38	3299078.39	3299078.40	3299078.42	3299078.43
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	-	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	-	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	-	< 0.08	< 0.07

Sample Name:		BWL TP 04 0.10 08-Jun-2023	BWL TP 04 0.50 08-Jun-2023	BWL TP 05 0.10 08-Jun-2023	BWL TP 05 0.50 08-Jun-2023	BWL TP 06 0.10 08-Jun-2023
Lab Number:		3299078.45	3299078.46	3299078.48	3299078.49	3299078.50
Individual Tests						
Dry Matter	g/100g as rcvd	63	-	77	77	65
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.3	0.5	0.5	0.9
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	3	3	3	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.33	< 0.10	< 0.10	< 0.10	0.20
Total Recoverable Chromium	mg/kg dry wt	9	6	5	6	9
Total Recoverable Copper	mg/kg dry wt	36	6	9	10	19
Total Recoverable Lead	mg/kg dry wt	82	21	15.6	17.2	18.6
Total Recoverable Mercury	mg/kg dry wt	0.18	< 0.10	< 0.10	< 0.10	0.15
Total Recoverable Nickel	mg/kg dry wt	5	3	2	3	5
Total Recoverable Zinc	mg/kg dry wt	103	28	36	45	74
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	-	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
alpha-BHC	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015

Sample Type: Soil						
Sample Name:		BWL TP 04 0.10 08-Jun-2023	BWL TP 04 0.50 08-Jun-2023	BWL TP 05 0.10 08-Jun-2023	BWL TP 05 0.50 08-Jun-2023	BWL TP 06 0.10 08-Jun-2023
Lab Number:		3299078.45	3299078.46	3299078.48	3299078.49	3299078.50
Organochlorine Pesticides Screening in Soil						
beta-BHC	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
delta-BHC	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
gamma-BHC (Lindane)	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
cis-Chlordane	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
trans-Chlordane	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
2,4'-DDD	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
4,4'-DDD	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
2,4'-DDE	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
4,4'-DDE	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
2,4'-DDT	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
4,4'-DDT	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Total DDT Isomers	mg/kg dry wt	< 0.10	-	< 0.08	< 0.08	< 0.09
Dieldrin	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Endosulfan I	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Endosulfan II	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Endosulfan sulphate	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Endrin	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Endrin aldehyde	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Endrin ketone	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Heptachlor	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Heptachlor epoxide	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Hexachlorobenzene	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Methoxychlor	mg/kg dry wt	< 0.016	-	< 0.013	< 0.013	< 0.015
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Alachlor	mg/kg dry wt	< 0.05	-	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Atrazine-desethyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Atrazine-desisopropyl	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Azaconazole	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Benalaxyl	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Bromacil	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Bromopropylate	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Butachlor	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Captan	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Carbaryl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Carbofuran	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Chlorfluazuron	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Chlorothalonil	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Chlorpyrifos	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Chlorpyrifos-methyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Chlortoluron	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Cyanazine	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Cyfluthrin	mg/kg dry wt	< 0.10	-	< 0.08	< 0.08	< 0.09
Cyhalothrin	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Cypermethrin	mg/kg dry wt	< 0.19	-	< 0.15	< 0.15	< 0.18
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Diazinon	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Dichloran	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	-	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.11	-	< 0.09	< 0.09	< 0.11

Sample Type: Soil						
Sample Name:		BWL TP 04 0.10 08-Jun-2023	BWL TP 04 0.50 08-Jun-2023	BWL TP 05 0.10 08-Jun-2023	BWL TP 05 0.50 08-Jun-2023	BWL TP 06 0.10 08-Jun-2023
Lab Number:		3299078.45	3299078.46	3299078.48	3299078.49	3299078.50
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Dimethoate	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Diphenylamine	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Diuron	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Fenpropimorph	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Fluazifop-butyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Fluometuron	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Flusilazole	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Fluvalinate	mg/kg dry wt	< 0.06	-	< 0.05	< 0.05	< 0.06
Furalaxyl	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Hexaconazole	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Hexazinone	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	-	< 0.3	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Malathion	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Metalaxyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Methamidophos	mg/kg dry wt	< 0.4	-	< 0.3	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	-	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Molinate	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Myclobutanil	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Naled	mg/kg dry wt	< 0.4	-	< 0.3	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Oxadiazon	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Oxyfluorfen	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Parathion-ethyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Parathion-methyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Pendimethalin	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Permethrin	mg/kg dry wt	< 0.03	-	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Pirimiphos-methyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Prochloraz	mg/kg dry wt	< 0.4	-	< 0.3	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Prometryn	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Propanil	mg/kg dry wt	< 0.2	-	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.06	-	< 0.05	< 0.05	< 0.06
Pyriproxyfen	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Quizalofop-ethyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Simazine	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Simetryn	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Sulfentrazone	mg/kg dry wt	< 0.4	-	< 0.3	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.15	-	< 0.12	< 0.13	< 0.15
Tebuconazole	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Terbacil	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Terbumeton	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Terbuthylazine	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Terbutryn	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Thiabendazole	mg/kg dry wt	< 0.4	-	< 0.3	< 0.4	< 0.4

Sample Type: Soil

Sample Name:		BWL TP 04 0.10 08-Jun-2023	BWL TP 04 0.50 08-Jun-2023	BWL TP 05 0.10 08-Jun-2023	BWL TP 05 0.50 08-Jun-2023	BWL TP 06 0.10 08-Jun-2023
Lab Number:		3299078.45	3299078.46	3299078.48	3299078.49	3299078.50
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Thiobencarb	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Tolylfluanid	mg/kg dry wt	< 0.04	-	< 0.03	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Trifluralin	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08
Vinclozolin	mg/kg dry wt	< 0.08	-	< 0.06	< 0.07	< 0.08

Sample Name:		BWL TP 06 0.50 08-Jun-2023	HT COMPC3 0.10 09-Jun-2023	HT COMPE2 0.10 09-Jun-2023	HT COMPE4 0.10 09-Jun-2023	HT TP 29 0.10 08-Jun-2023
Lab Number:		3299078.51	3299078.82	3299078.103	3299078.109	3299078.133
Individual Tests						
Dry Matter	g/100g as rcvd	-	66	73	89	77
Total Recoverable Beryllium	mg/kg dry wt	0.3	0.7	0.8	0.9	0.9
pH*	pH Units	-	-	-	-	6.0
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	3	5	9	5	7
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	23	47	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.30	0.36	0.13	0.34
Total Recoverable Chromium	mg/kg dry wt	6	8	10	11	9
Total Recoverable Copper	mg/kg dry wt	6	30	42	29	32
Total Recoverable Lead	mg/kg dry wt	16.3	30	36	22	159
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.43	0.21	< 0.10	0.14
Total Recoverable Nickel	mg/kg dry wt	3	4	5	27	7
Total Recoverable Zinc	mg/kg dry wt	23	119	175	72	148
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Bentazone	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Bromoxynil	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Clopyralid	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Dicamba	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Dichlorprop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Fluazifop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Fluroxypyr	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Haloxyfop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Oryzalin	mg/kg dry wt	-	< 0.4	< 0.4	< 0.4	-
Pentachlorophenol (PCP)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Picloram	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Quizalofop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	-	< 0.4	< 0.4	< 0.2	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Triclopyr	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
alpha-BHC	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
beta-BHC	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-

Sample Type: Soil						
	Sample Name:	BWL TP 06 0.50 08-Jun-2023	HT COMPC3 0.10 09-Jun-2023	HT COMPE2 0.10 09-Jun-2023	HT COMPE4 0.10 09-Jun-2023	HT TP 29 0.10 08-Jun-2023
	Lab Number:	3299078.51	3299078.82	3299078.103	3299078.109	3299078.133
Organochlorine Pesticides Screening in Soil						
delta-BHC	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
gamma-BHC (Lindane)	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
cis-Chlordane	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
trans-Chlordane	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
2,4'-DDD	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
4,4'-DDD	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
2,4'-DDE	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
4,4'-DDE	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
2,4'-DDT	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
4,4'-DDT	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Total DDT Isomers	mg/kg dry wt	-	< 0.09	< 0.08	< 0.07	-
Dieldrin	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Endosulfan I	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Endosulfan II	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Endosulfan sulphate	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Endrin	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Endrin aldehyde	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Endrin ketone	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Heptachlor	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Heptachlor epoxide	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Hexachlorobenzene	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Methoxychlor	mg/kg dry wt	-	< 0.015	< 0.014	< 0.011	-
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Alachlor	mg/kg dry wt	-	< 0.05	< 0.05	< 0.05	-
Atrazine	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Atrazine-desethyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Atrazine-desisopropyl	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Azaconazole	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Azinphos-methyl	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Benalaxyl	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Bitertanol	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Bromacil	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Bromopropylate	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Butachlor	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Captan	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Carbaryl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Carbofuran	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Chlorfluazuron	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Chlorothalonil	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Chlorpyrifos	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Chlorpyrifos-methyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Chlortoluron	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Cyanazine	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Cyfluthrin	mg/kg dry wt	-	< 0.09	< 0.08	< 0.07	-
Cyhalothrin	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Cypermethrin	mg/kg dry wt	-	< 0.18	< 0.16	< 0.13	-
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Diazinon	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Dichlofluanid	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Dichloran	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Dichlorvos	mg/kg dry wt	-	< 0.09	< 0.09	< 0.09	-
Difenoconazole	mg/kg dry wt	-	< 0.10	< 0.09	< 0.09	-
Dimethoate	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-

Sample Type: Soil						
Sample Name:		BWL TP 06 0.50 08-Jun-2023	HT COMPC3 0.10 09-Jun-2023	HT COMPE2 0.10 09-Jun-2023	HT COMPE4 0.10 09-Jun-2023	HT TP 29 0.10 08-Jun-2023
Lab Number:		3299078.51	3299078.82	3299078.103	3299078.109	3299078.133
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Diphenylamine	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Diuron	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Fenpropimorph	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Fluazifop-butyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Fluometuron	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Flusilazole	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Fluvalinate	mg/kg dry wt	-	< 0.05	< 0.05	< 0.05	-
Furalaxyl	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Haloxyfop-methyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Hexaconazole	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Hexazinone	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	< 0.4	< 0.4	< 0.3	-
Kresoxim-methyl	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Linuron	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Malathion	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Metalaxyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Methamidophos	mg/kg dry wt	-	< 0.4	< 0.4	< 0.3	-
Metolachlor	mg/kg dry wt	-	< 0.05	< 0.05	< 0.05	-
Metribuzin	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Molinate	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Myclobutanil	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Naled	mg/kg dry wt	-	< 0.4	< 0.4	< 0.3	-
Norflurazon	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Oxadiazon	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Oxyfluorfen	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Paclobutrazol	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Parathion-ethyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Parathion-methyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Pendimethalin	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Permethrin	mg/kg dry wt	-	< 0.03	< 0.03	< 0.03	-
Pirimicarb	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Pirimiphos-methyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Prochloraz	mg/kg dry wt	-	< 0.4	< 0.4	< 0.3	-
Procymidone	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Prometryn	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Propachlor	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Propanil	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Propazine	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Propiconazole	mg/kg dry wt	-	< 0.05	< 0.05	< 0.05	-
Pyriproxyfen	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Quizalofop-ethyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Simazine	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Simetryn	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Sulfentrazone	mg/kg dry wt	-	< 0.4	< 0.4	< 0.3	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	< 0.15	< 0.13	< 0.11	-
Tebuconazole	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Terbacil	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Terbumeton	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Terbuthylazine	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Terbuthylazine-desethyl	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Terbutryn	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Thiabendazole	mg/kg dry wt	-	< 0.4	< 0.4	< 0.3	-
Thiobencarb	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-

Sample Type: Soil						
Sample Name:		BWL TP 06 0.50 08-Jun-2023	HT COMPC3 0.10 09-Jun-2023	HT COMPE2 0.10 09-Jun-2023	HT COMPE4 0.10 09-Jun-2023	HT TP 29 0.10 08-Jun-2023
Lab Number:		3299078.51	3299078.82	3299078.103	3299078.109	3299078.133
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Tolylfluanid	mg/kg dry wt	-	< 0.04	< 0.04	< 0.03	-
Triazophos	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Trifluralin	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Vinclozolin	mg/kg dry wt	-	< 0.08	< 0.07	< 0.06	-
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	< 0.4	-	-	-
1-Methylnaphthalene	mg/kg dry wt	-	< 0.015	-	-	-
2-Methylnaphthalene	mg/kg dry wt	-	< 0.015	-	-	-
Acenaphthylene	mg/kg dry wt	-	< 0.015	-	-	-
Acenaphthene	mg/kg dry wt	-	< 0.015	-	-	-
Anthracene	mg/kg dry wt	-	< 0.015	-	-	-
Benzo[a]anthracene	mg/kg dry wt	-	< 0.015	-	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	< 0.015	-	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	< 0.036	-	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	< 0.036	-	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	< 0.015	-	-	-
Benzo[e]pyrene	mg/kg dry wt	-	< 0.015	-	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	-	< 0.015	-	-	-
Benzo[k]fluoranthene	mg/kg dry wt	-	< 0.015	-	-	-
Chrysene	mg/kg dry wt	-	< 0.015	-	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	-	< 0.015	-	-	-
Fluoranthene	mg/kg dry wt	-	< 0.015	-	-	-
Fluorene	mg/kg dry wt	-	< 0.015	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	< 0.015	-	-	-
Naphthalene	mg/kg dry wt	-	< 0.08	-	-	-
Perylene	mg/kg dry wt	-	< 0.015	-	-	-
Phenanthrene	mg/kg dry wt	-	< 0.015	-	-	-
Pyrene	mg/kg dry wt	-	< 0.015	-	-	-
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	-	-	-	-	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	-	-	-	-	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	-	-	-	-	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	-	-	-	-	< 0.4
4-Chlorophenyl phenyl ether	mg/kg dry wt	-	-	-	-	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	-	-	-	-	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	-	-	-	-	< 1.0
Nitrobenzene	mg/kg dry wt	-	-	-	-	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	-	-	-	-	< 0.8
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	-	-	-	-	< 0.8
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	-	-	-	-	< 0.5
alpha-BHC	mg/kg dry wt	-	-	-	-	< 0.5
beta-BHC	mg/kg dry wt	-	-	-	-	< 0.5
delta-BHC	mg/kg dry wt	-	-	-	-	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	-	< 0.5
4,4'-DDD	mg/kg dry wt	-	-	-	-	< 0.5
4,4'-DDE	mg/kg dry wt	-	-	-	-	< 0.5
4,4'-DDT	mg/kg dry wt	-	-	-	-	< 1.0
Dieldrin	mg/kg dry wt	-	-	-	-	< 0.5
Endosulfan I	mg/kg dry wt	-	-	-	-	< 1.0
Endosulfan II	mg/kg dry wt	-	-	-	-	< 2

Sample Type: Soil						
	Sample Name:	BWL TP 06 0.50 08-Jun-2023	HT COMPC3 0.10 09-Jun-2023	HT COMPE2 0.10 09-Jun-2023	HT COMPE4 0.10 09-Jun-2023	HT TP 29 0.10 08-Jun-2023
	Lab Number:	3299078.51	3299078.82	3299078.103	3299078.109	3299078.133
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Endosulfan sulphate	mg/kg dry wt	-	-	-	-	< 1.0
Endrin	mg/kg dry wt	-	-	-	-	< 0.8
Endrin ketone	mg/kg dry wt	-	-	-	-	< 1.0
Heptachlor	mg/kg dry wt	-	-	-	-	< 0.5
Heptachlor epoxide	mg/kg dry wt	-	-	-	-	< 0.5
Hexachlorobenzene	mg/kg dry wt	-	-	-	-	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	-	-	-	-	< 0.5
Acenaphthylene	mg/kg dry wt	-	-	-	-	< 0.5
Anthracene	mg/kg dry wt	-	-	-	-	< 0.5
Benzo[a]anthracene	mg/kg dry wt	-	-	-	-	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	-	-	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	-	-	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	-	-	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	-	-	-	-	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	-	-	-	-	< 0.5
Chrysene	mg/kg dry wt	-	-	-	-	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	-	-	< 0.5
Fluoranthene	mg/kg dry wt	-	-	-	-	0.6
Fluorene	mg/kg dry wt	-	-	-	-	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	-	-	0.5
2-Methylnaphthalene	mg/kg dry wt	-	-	-	-	< 0.5
Naphthalene	mg/kg dry wt	-	-	-	-	< 0.5
Phenanthrene	mg/kg dry wt	-	-	-	-	< 0.5
Pyrene	mg/kg dry wt	-	-	-	-	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	-	-	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	-	-	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	-	-	-	-	< 5
2-Chlorophenol	mg/kg dry wt	-	-	-	-	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	-	-	-	-	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	-	-	-	-	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	-	-	-	-	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	-	-	-	-	< 1.0
2-Nitrophenol	mg/kg dry wt	-	-	-	-	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	-	-	< 30
Phenol	mg/kg dry wt	-	-	-	-	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	-	-	-	-	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	-	-	-	-	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	-	-	-	-	< 5
Butylbenzylphthalate	mg/kg dry wt	-	-	-	-	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	-	-	-	-	< 1.0
Diethylphthalate	mg/kg dry wt	-	-	-	-	< 1.0
Dimethylphthalate	mg/kg dry wt	-	-	-	-	< 1.0
Di-n-butylphthalate	mg/kg dry wt	-	-	-	-	< 1.0
Di-n-octylphthalate	mg/kg dry wt	-	-	-	-	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.8
1,3-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.8
1,4-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.8
Hexachlorobutadiene	mg/kg dry wt	-	-	-	-	< 0.8

Sample Type: Soil						
Sample Name:		BWL TP 06 0.50 08-Jun-2023	HT COMPC3 0.10 09-Jun-2023	HT COMPE2 0.10 09-Jun-2023	HT COMPE4 0.10 09-Jun-2023	HT TP 29 0.10 08-Jun-2023
Lab Number:		3299078.51	3299078.82	3299078.103	3299078.109	3299078.133
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
Hexachloroethane	mg/kg dry wt	-	-	-	-	< 0.8
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	-	-	-	-	< 10
Carbazole	mg/kg dry wt	-	-	-	-	< 0.5
Dibenzofuran	mg/kg dry wt	-	-	-	-	< 0.5
Isophorone	mg/kg dry wt	-	-	-	-	< 0.5

Sample Name:		HT TP 29 0.50 08-Jun-2023	HT TP 30 0.10 08-Jun-2023	HT TP 30 0.50 08-Jun-2023	HT TP 31 0.10 08-Jun-2023	HT TP 31 0.50 08-Jun-2023
Lab Number:		3299078.134	3299078.136	3299078.137	3299078.139	3299078.140
Individual Tests						
Dry Matter	g/100g as rcvd	75	76	70	86	74
Total Recoverable Beryllium	mg/kg dry wt	0.4	2.2	0.7	0.8	1.3
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	3	18	4	7	5
Total Recoverable Boron	mg/kg dry wt	< 20	79	< 20	25	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.39	< 0.10	0.19	0.22
Total Recoverable Chromium	mg/kg dry wt	9	9	9	11	8
Total Recoverable Copper	mg/kg dry wt	8	39	13	26	26
Total Recoverable Lead	mg/kg dry wt	19.8	145	21	83	38
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.12	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	4	16	4	11	6
Total Recoverable Zinc	mg/kg dry wt	33	121	38	123	88
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.4	< 0.4	< 0.5	< 0.4	< 0.4
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Endrin	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
Endrin ketone	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		HT TP 29 0.50 08-Jun-2023	HT TP 30 0.10 08-Jun-2023	HT TP 30 0.50 08-Jun-2023	HT TP 31 0.10 08-Jun-2023	HT TP 31 0.50 08-Jun-2023
Lab Number:		3299078.134	3299078.136	3299078.137	3299078.139	3299078.140
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5	1.0	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	1.1	< 0.5	< 0.5	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.5	1.3	< 0.5	< 0.5	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	1.0	< 0.5	< 0.5	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	0.6	< 0.5	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	mg/kg dry wt	< 0.5	1.2	< 0.5	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	0.6	< 0.5	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	< 0.5	2.6	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.5	1.2	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	1.1	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 0.5	2.3	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	2.1	< 1.3	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	2.1	< 1.3	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
1,3-Dichlorobenzene	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
1,4-Dichlorobenzene	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
Hexachlorobutadiene	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
Hexachloroethane	mg/kg dry wt	< 0.8	< 0.8	< 0.9	< 0.7	< 0.8
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 10
Carbazole	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isophorone	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		DUP A1 08-Jun-2023	DUP B1 08-Jun-2023	WWTP TP01 0.10 13-Jun-2023	WWTP TP01 0.50 13-Jun-2023	WWTP TP02 0.10 13-Jun-2023
Lab Number:		3299078.142	3299078.143	3299078.165	3299078.166	3299078.168
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	71	67	75
Total Recoverable Beryllium	mg/kg dry wt	0.5	1.0	0.9	1.3	0.8
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	5	3	< 2	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.31	0.12	< 0.10	0.13
Total Recoverable Chromium	mg/kg dry wt	9	9	7	5	8
Total Recoverable Copper	mg/kg dry wt	13	28	14	14	15
Total Recoverable Lead	mg/kg dry wt	20	111	17.5	16.2	19.8
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.17	< 0.10	< 0.10	0.11
Total Recoverable Nickel	mg/kg dry wt	4	6	4	4	5
Total Recoverable Zinc	mg/kg dry wt	32	102	59	38	57
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.4
4-Chlorophenyl phenyl ether	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Endosulfan I	mg/kg dry wt	-	-	< 1.7	< 1.0	< 1.6
Endosulfan II	mg/kg dry wt	-	-	< 2	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Endrin	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
Endrin ketone	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Chrysene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		DUP A1 08-Jun-2023	DUP B1 08-Jun-2023	WWTP TP01 0.10 13-Jun-2023	WWTP TP01 0.50 13-Jun-2023	WWTP TP02 0.10 13-Jun-2023
Lab Number:		3299078.142	3299078.143	3299078.165	3299078.166	3299078.168
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	< 1.3	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	< 1.3	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	-	-	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	-	-	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	-	-	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	-	-	< 5	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	< 30	< 30	< 30
Phenol	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	-	-	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	-	-	< 1.0	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
1,3-Dichlorobenzene	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
1,4-Dichlorobenzene	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
Hexachlorobutadiene	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
Hexachloroethane	mg/kg dry wt	-	-	< 0.9	< 0.9	< 0.8
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	-	-	< 10	< 10	< 10
Carbazole	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
Isophorone	mg/kg dry wt	-	-	< 0.5	< 0.5	< 0.5
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Ethylbenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Toluene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
m&p-Xylene	mg/kg dry wt	-	-	< 0.5	-	< 0.5
o-Xylene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Carbon tetrachloride	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Chloroethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3

Sample Type: Soil						
Sample Name:		DUP A1 08-Jun-2023	DUP B1 08-Jun-2023	WWTP TP01 0.10 13-Jun-2023	WWTP TP01 0.50 13-Jun-2023	WWTP TP02 0.10 13-Jun-2023
Lab Number:		3299078.142	3299078.143	3299078.165	3299078.166	3299078.168
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Chloromethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	-	< 0.5	-	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Dibromomethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,3-Dichloropropane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	-	-	< 0.5	-	< 0.5
1,1-Dichloroethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,2-Dichloroethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,1-Dichloroethene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	-	-	< 5	-	< 5
1,2-Dichloropropane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,1-Dichloropropene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
cis-1,3-Dichloropropene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Hexachlorobutadiene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Trichlorofluoromethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	-	-	< 0.5	-	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Vinyl chloride	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
4-Chlorotoluene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
2-Chlorotoluene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
tert-Butylbenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Isopropylbenzene (Cumene)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
n-Propylbenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
sec-Butylbenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Styrene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	-	-	< 0.3	-	< 0.3

Sample Type: Soil

Sample Name:		DUP A1 08-Jun-2023	DUP B1 08-Jun-2023	WWTP TP01 0.10 13-Jun-2023	WWTP TP01 0.50 13-Jun-2023	WWTP TP02 0.10 13-Jun-2023
Lab Number:		3299078.142	3299078.143	3299078.165	3299078.166	3299078.168
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	-	< 50	-	< 50
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	-	< 10	-	< 9
Acetone	mg/kg dry wt	-	-	< 50	-	< 50
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	-	-	< 0.5	-	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Dibromochloromethane	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	-	< 0.3	-	< 0.3
Naphthalene	mg/kg dry wt	-	-	< 0.3	-	< 0.3

Sample Name:		WWTP TP02 0.50 13-Jun-2023	WWTP TP03 0.10 13-Jun-2023	WWTP TP03 0.50 13-Jun-2023	WWTP TP04 0.10 13-Jun-2023	WWTP TP04 0.50 13-Jun-2023
Lab Number:		3299078.169	3299078.171	3299078.172	3299078.174	3299078.175
Individual Tests						
Dry Matter	g/100g as rcvd	64	66	73	87	86
Total Recoverable Beryllium	mg/kg dry wt	1.5	0.9	1.0	0.4	0.4
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	< 2	5	2	7	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.22	< 0.10	0.10	0.13
Total Recoverable Chromium	mg/kg dry wt	5	8	7	11	11
Total Recoverable Copper	mg/kg dry wt	14	26	14	14	14
Total Recoverable Lead	mg/kg dry wt	15.1	114	17.6	15.6	15.4
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	4	5	4	9	8
Total Recoverable Zinc	mg/kg dry wt	44	103	39	78	81
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.4	< 0.4
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	mg/kg dry wt	< 1.9	< 1.8	< 1.0	< 1.4	< 1.4
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Sample Type: Soil						
Sample Name:		WWTP TP02 0.50 13-Jun-2023	WWTP TP03 0.10 13-Jun-2023	WWTP TP03 0.50 13-Jun-2023	WWTP TP04 0.10 13-Jun-2023	WWTP TP04 0.50 13-Jun-2023
Lab Number:		3299078.169	3299078.171	3299078.172	3299078.174	3299078.175
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Endrin	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7
Endrin ketone	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7
1,3-Dichlorobenzene	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7
1,4-Dichlorobenzene	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7
Hexachlorobutadiene	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7
Hexachloroethane	mg/kg dry wt	< 1.0	< 0.9	< 0.9	< 0.7	< 0.7

Sample Type: Soil						
	Sample Name:	WWTP TP02 0.50 13-Jun-2023	WWTP TP03 0.10 13-Jun-2023	WWTP TP03 0.50 13-Jun-2023	WWTP TP04 0.10 13-Jun-2023	WWTP TP04 0.50 13-Jun-2023
	Lab Number:	3299078.169	3299078.171	3299078.172	3299078.174	3299078.175
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 10
Carbazole	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isophorone	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	< 0.3	-	< 0.16	-
Ethylbenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Toluene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
m&p-Xylene	mg/kg dry wt	-	< 0.6	-	< 0.4	-
o-Xylene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Carbon tetrachloride	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Chloroethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Chloromethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	< 0.5	-	< 0.5	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Dibromomethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,3-Dichloropropane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Dichlorodifluoromethane	mg/kg dry wt	-	< 0.5	-	< 0.5	-
1,1-Dichloroethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,2-Dichloroethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,1-Dichloroethene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
cis-1,2-Dichloroethene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
trans-1,2-Dichloroethene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Dichloromethane (methylene chloride)	mg/kg dry wt	-	< 6	-	< 4	-
1,2-Dichloropropane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,1-Dichloropropene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
cis-1,3-Dichloropropene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
trans-1,3-Dichloropropene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Hexachlorobutadiene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,1,1-Trichloroethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,1,2-Trichloroethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Trichlorofluoromethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,2,3-Trichloropropane	mg/kg dry wt	-	< 0.5	-	< 0.5	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Vinyl chloride	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,3-Dichlorobenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
4-Chlorotoluene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,2-Dichlorobenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,4-Dichlorobenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-

Sample Type: Soil						
Sample Name:		WWTP TP02 0.50 13-Jun-2023	WWTP TP03 0.10 13-Jun-2023	WWTP TP03 0.50 13-Jun-2023	WWTP TP04 0.10 13-Jun-2023	WWTP TP04 0.50 13-Jun-2023
Lab Number:		3299078.169	3299078.171	3299078.172	3299078.174	3299078.175
Haloaromatics in VOC Soils by Headspace GC-MS						
2-Chlorotoluene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,2,3-Trichlorobenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,3,5-Trichlorobenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
tert-Butylbenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Isopropylbenzene (Cumene)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
n-Propylbenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
sec-Butylbenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Styrene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,2,4-Trimethylbenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
1,3,5-Trimethylbenzene	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	< 60	-	< 40	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	< 11	-	< 7	-
Acetone	mg/kg dry wt	-	< 60	-	< 40	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Bromoform (tribromomethane)	mg/kg dry wt	-	< 0.5	-	< 0.5	-
Chloroform (Trichloromethane)	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Dibromochloromethane	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	< 0.3	-	< 0.3	-
Naphthalene	mg/kg dry wt	-	< 0.3	-	< 0.3	-

Sample Name:		B35 HA01 0.10 12-Jun-2023	B35 HA01 0.50 12-Jun-2023	B35 HA04 0.10 12-Jun-2023	B35 HA04 0.50 12-Jun-2023	DS01 TP01 0.10 12-Jun-2023
Lab Number:		3299078.179	3299078.180	3299078.182	3299078.183	3299078.185
Individual Tests						
Dry Matter	g/100g as rcvd	74	76	75	-	-
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.6	1.0	0.7	1.0
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	11	3	10	5	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.50	< 0.10	0.41	0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	14	7	11	9	8
Total Recoverable Copper	mg/kg dry wt	57	12	43	14	30
Total Recoverable Lead	mg/kg dry wt	630	54	360	87	44
Total Recoverable Mercury	mg/kg dry wt	0.54	< 0.10	0.23	< 0.10	0.13
Total Recoverable Nickel	mg/kg dry wt	7	3	6	3	4
Total Recoverable Zinc	mg/kg dry wt	260	43	210	74	41
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-

Sample Type: Soil						
Sample Name:		B35 HA01 0.10 12-Jun-2023	B35 HA01 0.50 12-Jun-2023	B35 HA04 0.10 12-Jun-2023	B35 HA04 0.50 12-Jun-2023	DS01 TP01 0.10 12-Jun-2023
Lab Number:		3299078.179	3299078.180	3299078.182	3299078.183	3299078.185
Acid Herbicides Screen in Soil by LCMSMS						
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
alpha-BHC	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
beta-BHC	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
delta-BHC	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
cis-Chlordane	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
trans-Chlordane	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
2,4'-DDD	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
4,4'-DDD	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
2,4'-DDE	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
4,4'-DDE	mg/kg dry wt	0.24	0.044	0.41	-	-
2,4'-DDT	mg/kg dry wt	0.015	< 0.013	0.044	-	-
4,4'-DDT	mg/kg dry wt	0.166	0.043	0.28	-	-
Total DDT Isomers	mg/kg dry wt	0.43	0.09	0.74	-	-
Dieldrin	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Endosulfan I	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Endosulfan II	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Endosulfan sulphate	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Endrin	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Endrin aldehyde	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Endrin ketone	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Heptachlor	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Methoxychlor	mg/kg dry wt	< 0.013	< 0.013	< 0.014	-	-
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	-	-
Atrazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Atrazine-desisopropyl	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Azinphos-methyl	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Bitertanol	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Bromacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-

Sample Type: Soil						
Sample Name:		B35 HA01 0.10 12-Jun-2023	B35 HA01 0.50 12-Jun-2023	B35 HA04 0.10 12-Jun-2023	B35 HA04 0.50 12-Jun-2023	DS01 TP01 0.10 12-Jun-2023
Lab Number:		3299078.179	3299078.180	3299078.182	3299078.183	3299078.185
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Butachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Captan	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Chlortoluron	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Cyfluthrin	mg/kg dry wt	< 0.08	< 0.08	< 0.08	-	-
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Cypermethrin	mg/kg dry wt	< 0.16	< 0.15	< 0.16	-	-
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Diazinon	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	-	-
Difenoconazole	mg/kg dry wt	< 0.09	< 0.09	< 0.09	-	-
Dimethoate	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Diphenylamine	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Diuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.05	-	-
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Linuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Malathion	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	-	-
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Molinate	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Naled	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
Norflurazon	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	-	-
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-

Sample Type: Soil						
Sample Name:		B35 HA01 0.10 12-Jun-2023	B35 HA01 0.50 12-Jun-2023	B35 HA04 0.10 12-Jun-2023	B35 HA04 0.50 12-Jun-2023	DS01 TP01 0.10 12-Jun-2023
Lab Number:		3299078.179	3299078.180	3299078.182	3299078.183	3299078.185
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
Procymidone	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Prometryn	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Propachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	-	-
Propazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.05	-	-
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Simazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Simetryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.13	< 0.13	< 0.13	-	-
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Terbacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	< 0.4	-	-
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.04	-	-
Triazophos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	-	-

Sample Name:		DS01 TP01 0.50 12-Jun-2023	DS01 TP02 0.10 12-Jun-2023	DS01 TP03 0.10 12-Jun-2023	DS01 TP03 0.50 12-Jun-2023	DS01 TP04 0.10 12-Jun-2023
Lab Number:		3299078.186	3299078.187	3299078.190	3299078.191	3299078.193
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	0.7	0.8	1.1	0.4	0.6
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	5	7	3	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.17	0.13	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	7	9	9	3	6
Total Recoverable Copper	mg/kg dry wt	24	16	25	4	13
Total Recoverable Lead	mg/kg dry wt	38	24	34	32	29
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	4	5	4	< 2	3
Total Recoverable Zinc	mg/kg dry wt	35	63	49	20	30

Sample Name:		DS01 TP05 0.10 12-Jun-2023	DS01 TP05 0.50 12-Jun-2023	NUR TP01 0.10 13-Jun-2023	NUR TP01 0.50 13-Jun-2023	NUR TP02 0.10 13-Jun-2023
Lab Number:		3299078.196	3299078.197	3299078.199	3299078.200	3299078.202
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	0.9	0.4	1.2	1.1	0.9
pH*	pH Units	-	-	6.2	-	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	3	5	6	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.18	< 0.10	0.15	< 0.10	0.25
Total Recoverable Chromium	mg/kg dry wt	10	6	21	18	19
Total Recoverable Copper	mg/kg dry wt	20	5	48	44	33
Total Recoverable Lead	mg/kg dry wt	30	31	24	26	35
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	0.17	0.16	0.11

Sample Type: Soil

Sample Name:		DS01 TP05 0.10 12-Jun-2023	DS01 TP05 0.50 12-Jun-2023	NUR TP01 0.10 13-Jun-2023	NUR TP01 0.50 13-Jun-2023	NUR TP02 0.10 13-Jun-2023
Lab Number:		3299078.196	3299078.197	3299078.199	3299078.200	3299078.202
8 Heavy metals plus Boron						
Total Recoverable Nickel	mg/kg dry wt	5	< 2	9	8	10
Total Recoverable Zinc	mg/kg dry wt	50	24	93	70	129

Sample Name:		NUR TP02 0.50 13-Jun-2023	NUR TP03 0.10 13-Jun-2023	NUR TP03 0.50 13-Jun-2023	NUR TP04 0.10 13-Jun-2023	PAV TP01 0.10 12-Jun-2023
Lab Number:		3299078.203	3299078.205	3299078.206	3299078.208	3299078.211
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	1.0	1.1	1.2	1.2	0.7
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	5	4	6	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.16	0.15	0.10	0.27	0.19
Total Recoverable Chromium	mg/kg dry wt	14	18	15	17	16
Total Recoverable Copper	mg/kg dry wt	40	39	40	40	33
Total Recoverable Lead	mg/kg dry wt	47	27	23	34	41
Total Recoverable Mercury	mg/kg dry wt	0.17	0.14	0.16	0.13	0.13
Total Recoverable Nickel	mg/kg dry wt	9	10	10	9	5
Total Recoverable Zinc	mg/kg dry wt	93	73	51	84	143

Sample Name:		PAV TP01 0.50 12-Jun-2023	PAV TP02 0.10 12-Jun-2023	DUP C1	B59 TP04 0.10 14-Jun-2023	B59 TP04 0.50 14-Jun-2023
Lab Number:		3299078.212	3299078.214	3299078.217	3299078.219	3299078.220
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	-	86	70
Total Recoverable Beryllium	mg/kg dry wt	0.7	0.9	0.9	1.5	1.3
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	3	8	8	11
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	175	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.12	0.13	0.40	0.22
Total Recoverable Chromium	mg/kg dry wt	7	6	10	25	9
Total Recoverable Copper	mg/kg dry wt	21	41	26	28	14
Total Recoverable Lead	mg/kg dry wt	23	45	34	61	23
Total Recoverable Mercury	mg/kg dry wt	0.15	0.12	< 0.10	0.12	0.10
Total Recoverable Nickel	mg/kg dry wt	5	3	5	25	3
Total Recoverable Zinc	mg/kg dry wt	46	76	54	135	56
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Bentazone	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dicamba	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	-	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		PAV TP01 0.50 12-Jun-2023	PAV TP02 0.10 12-Jun-2023	DUP C1	B59 TP04 0.10 14-Jun-2023	B59 TP04 0.50 14-Jun-2023
Lab Number:		3299078.212	3299078.214	3299078.217	3299078.219	3299078.220
Acid Herbicides Screen in Soil by LCMSMS						
Picloram	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	-	-	< 0.012	< 0.014
alpha-BHC	mg/kg dry wt	-	-	-	< 0.012	< 0.014
beta-BHC	mg/kg dry wt	-	-	-	< 0.012	< 0.014
delta-BHC	mg/kg dry wt	-	-	-	< 0.012	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	< 0.012	< 0.014
cis-Chlordane	mg/kg dry wt	-	-	-	< 0.012	< 0.014
trans-Chlordane	mg/kg dry wt	-	-	-	< 0.012	< 0.014
2,4'-DDD	mg/kg dry wt	-	-	-	< 0.012	< 0.014
4,4'-DDD	mg/kg dry wt	-	-	-	< 0.012	< 0.014
2,4'-DDE	mg/kg dry wt	-	-	-	< 0.012	< 0.014
4,4'-DDE	mg/kg dry wt	-	-	-	< 0.012	< 0.014
2,4'-DDT	mg/kg dry wt	-	-	-	< 0.012	< 0.014
4,4'-DDT	mg/kg dry wt	-	-	-	0.025	< 0.014
Total DDT Isomers	mg/kg dry wt	-	-	-	< 0.07	< 0.09
Dieldrin	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Endosulfan I	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Endosulfan II	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Endosulfan sulphate	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Endrin	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Endrin aldehyde	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Endrin ketone	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Heptachlor	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Methoxychlor	mg/kg dry wt	-	-	-	< 0.012	< 0.014
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Alachlor	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Atrazine	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Atrazine-desethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Azaconazole	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Azinphos-methyl	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Benalaxyl	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Bitertanol	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Bromacil	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Bromopropylate	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Butachlor	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Captan	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Carbaryl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Carbofuran	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Chlorfluazuron	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Chlorothalonil	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Chlorpyrifos	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Chlortoluron	mg/kg dry wt	-	-	-	< 0.11	< 0.14

Sample Type: Soil						
	Sample Name:	PAV TP01 0.50 12-Jun-2023	PAV TP02 0.10 12-Jun-2023	DUP C1	B59 TP04 0.10 14-Jun-2023	B59 TP04 0.50 14-Jun-2023
	Lab Number:	3299078.212	3299078.214	3299078.217	3299078.219	3299078.220
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Cyanazine	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Cyfluthrin	mg/kg dry wt	-	-	-	< 0.07	< 0.09
Cyhalothrin	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Cypermethrin	mg/kg dry wt	-	-	-	< 0.14	< 0.17
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Diazinon	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Dichlofluanid	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Dichloran	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	-	-	-	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	-	-	-	< 0.09	< 0.10
Dimethoate	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Diphenylamine	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Diuron	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Fenpropimorph	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Fluazifop-butyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Fluometuron	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Flusilazole	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Fluvalinate	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Haloxyfop-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Hexaconazole	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Hexazinone	mg/kg dry wt	-	-	-	< 0.03	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	-	-	< 0.3	< 0.4
Kresoxim-methyl	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Linuron	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Malathion	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Metalaxyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Methamidophos	mg/kg dry wt	-	-	-	< 0.3	< 0.4
Metolachlor	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Molinate	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Myclobutanil	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Naled	mg/kg dry wt	-	-	-	< 0.3	< 0.4
Norflurazon	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Oxadiazon	mg/kg dry wt	-	-	-	0.61	< 0.07
Oxyfluorfen	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Paclobutrazol	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Parathion-ethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Parathion-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Pendimethalin	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Permethrin	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Pirimiphos-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Prochloraz	mg/kg dry wt	-	-	-	< 0.3	< 0.4
Procymidone	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Prometryn	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Propachlor	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Propanil	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Propazine	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Propiconazole	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Quizalofop-ethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Simazine	mg/kg dry wt	-	-	-	< 0.06	< 0.07

Sample Type: Soil						
Sample Name:		PAV TP01 0.50 12-Jun-2023	PAV TP02 0.10 12-Jun-2023	DUP C1	B59 TP04 0.10 14-Jun-2023	B59 TP04 0.50 14-Jun-2023
Lab Number:		3299078.212	3299078.214	3299078.217	3299078.219	3299078.220
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Simetryn	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Sulfentrazone	mg/kg dry wt	-	-	-	< 0.3	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	-	-	< 0.11	< 0.14
Tebuconazole	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Terbacil	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Terbumeton	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Terbuthylazine	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Terbutryn	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Thiabendazole	mg/kg dry wt	-	-	-	< 0.3	< 0.4
Thiobencarb	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Tolylfluanid	mg/kg dry wt	-	-	-	< 0.03	< 0.04
Triazophos	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Trifluralin	mg/kg dry wt	-	-	-	< 0.06	< 0.07
Vinclozolin	mg/kg dry wt	-	-	-	< 0.06	< 0.07

Sample Name:		B63 TP01 0.10 14-Jun-2023	B66 HA01 14-Jun-2023	B66 HA02 14-Jun-2023	B67 HA01 0.10 14-Jun-2023	B67 HA01 0.50 14-Jun-2023
Lab Number:		3299078.222	3299078.225	3299078.226	3299078.227	3299078.228
Individual Tests						
Dry Matter	g/100g as rcvd	93	87	79	94	84
Total Recoverable Beryllium	mg/kg dry wt	0.4	4.5	0.9	0.4	0.3
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	30	28	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	2,700	360	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	1.93	2.6	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	9	47	31	9	5
Total Recoverable Copper	mg/kg dry wt	11	220	154	12	4
Total Recoverable Lead	mg/kg dry wt	8.2	1,470	780	6.3	4.5
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.77	< 0.3	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	11	140	38	7	3
Total Recoverable Zinc	mg/kg dry wt	54	1,910	1,190	33	24
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.4	< 0.7	< 0.8	< 0.4	< 0.4
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		B63 TP01 0.10 14-Jun-2023	B66 HA01 14-Jun-2023	B66 HA02 14-Jun-2023	B67 HA01 0.10 14-Jun-2023	B67 HA01 0.50 14-Jun-2023
Lab Number:		3299078.222	3299078.225	3299078.226	3299078.227	3299078.228
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Endosulfan I	mg/kg dry wt	< 1.0	< 3	< 4	< 1.0	< 1.0
Endosulfan II	mg/kg dry wt	< 2	< 3	< 4	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Endrin	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8
Endrin ketone	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	1.9	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	< 0.7	3.2	< 0.5	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.5	< 0.7	4.7	< 0.5	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	0.8	8.2	< 0.5	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Chrysene	mg/kg dry wt	< 0.5	< 0.5	2.3	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	2.9	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.5	0.8	2.8	< 0.5	< 0.5
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	0.7	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 0.5	< 0.5	8.6	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	< 1.7	4.8	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	< 1.7	4.8	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	27	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	< 1.0	< 1.4	< 1.6	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8
1,3-Dichlorobenzene	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8

Sample Type: Soil						
Sample Name:		B63 TP01 0.10 14-Jun-2023	B66 HA01 14-Jun-2023	B66 HA02 14-Jun-2023	B67 HA01 0.10 14-Jun-2023	B67 HA01 0.50 14-Jun-2023
Lab Number:		3299078.222	3299078.225	3299078.226	3299078.227	3299078.228
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,4-Dichlorobenzene	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8
Hexachlorobutadiene	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8
Hexachloroethane	mg/kg dry wt	< 0.7	< 1.4	< 1.6	< 0.7	< 0.8
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 10
Carbazole	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Isophorone	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	< 40	< 40	-	-
C10 - C14	mg/kg dry wt	-	< 30	80	-	-
C15 - C36	mg/kg dry wt	-	2,500	17,800	-	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	2,500	17,900	-	-
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Ethylbenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Toluene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
m&p-Xylene	mg/kg dry wt	-	< 0.6	< 0.8	-	-
o-Xylene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Carbon tetrachloride	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Chloroethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Chloromethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	< 0.5	< 0.5	-	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Dibromomethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,3-Dichloropropane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Dichlorodifluoromethane	mg/kg dry wt	-	< 0.5	< 0.5	-	-
1,1-Dichloroethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,2-Dichloroethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,1-Dichloroethene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
cis-1,2-Dichloroethene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
trans-1,2-Dichloroethene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Dichloromethane (methylene chloride)	mg/kg dry wt	-	< 6	< 8	-	-
1,2-Dichloropropane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,1-Dichloropropene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
cis-1,3-Dichloropropene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
trans-1,3-Dichloropropene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Hexachlorobutadiene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,1,1-Trichloroethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,1,2-Trichloroethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Trichlorofluoromethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,2,3-Trichloropropane	mg/kg dry wt	-	< 0.5	< 0.5	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Vinyl chloride	mg/kg dry wt	-	< 0.3	< 0.4	-	-

Sample Type: Soil						
Sample Name:		B63 TP01 0.10 14-Jun-2023	B66 HA01 14-Jun-2023	B66 HA02 14-Jun-2023	B67 HA01 0.10 14-Jun-2023	B67 HA01 0.50 14-Jun-2023
Lab Number:		3299078.222	3299078.225	3299078.226	3299078.227	3299078.228
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,3-Dichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
4-Chlorotoluene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,2-Dichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,4-Dichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
2-Chlorotoluene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,2,3-Trichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,3,5-Trichlorobenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
tert-Butylbenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Isopropylbenzene (Cumene)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
n-Propylbenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
sec-Butylbenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Styrene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,2,4-Trimethylbenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
1,3,5-Trimethylbenzene	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	< 60	< 80	-	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	< 12	< 15	-	-
Acetone	mg/kg dry wt	-	< 60	< 80	-	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Bromoform (tribromomethane)	mg/kg dry wt	-	< 0.5	< 0.5	-	-
Chloroform (Trichloromethane)	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Dibromochloromethane	mg/kg dry wt	-	< 0.3	< 0.4	-	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	< 0.3	< 0.3	-	-
Naphthalene	mg/kg dry wt	-	< 0.3	< 0.4	-	-

Sample Name:		B67 HA02 0.10 14-Jun-2023	B67 HA02 0.50 14-Jun-2023	B71 TP01 0.10 14-Jun-2023	B71 TP01 0.50 14-Jun-2023	B71 TP02 0.10 14-Jun-2023
Lab Number:		3299078.229	3299078.230	3299078.231	3299078.232	3299078.234
Individual Tests						
Dry Matter	g/100g as rcvd	89	60	66	60	67
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.9	1.0	1.3	1.2
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	7	6	5	6
Total Recoverable Boron	mg/kg dry wt	580	84	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.17	< 0.10	0.16	< 0.10	0.26
Total Recoverable Chromium	mg/kg dry wt	18	15	10	12	11
Total Recoverable Copper	mg/kg dry wt	46	22	24	32	35
Total Recoverable Lead	mg/kg dry wt	29	17.5	23	18.4	27
Total Recoverable Mercury	mg/kg dry wt	0.10	0.10	0.11	0.13	0.15
Total Recoverable Nickel	mg/kg dry wt	29	6	6	7	6
Total Recoverable Zinc	mg/kg dry wt	72	45	65	42	66
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		B67 HA02 0.10 14-Jun-2023	B67 HA02 0.50 14-Jun-2023	B71 TP01 0.10 14-Jun-2023	B71 TP01 0.50 14-Jun-2023	B71 TP02 0.10 14-Jun-2023
Lab Number:		3299078.229	3299078.230	3299078.231	3299078.232	3299078.234
Haloethers in SVOC Soil Samples by GC-MS						
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.4	< 0.6	< 0.5	< 0.5	< 0.5
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Endosulfan I	mg/kg dry wt	< 1.0	< 1.1	< 1.8	< 2	< 1.0
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Endrin	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
Endrin ketone	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	12.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	0.7	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	36	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	39	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	35	< 0.6	< 0.5	< 0.5	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	38	< 0.6	< 0.5	< 0.5	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	16.5	< 0.6	< 0.5	< 0.5	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	16	< 0.6	< 0.5	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	mg/kg dry wt	31	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	4.7	< 0.6	< 0.5	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	102	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	13.6	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	19.3	< 0.6	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	mg/kg dry wt	0.6	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	79	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	85	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	52	< 1.3	< 1.3	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	51	< 1.3	< 1.3	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3

Sample Type: Soil						
Sample Name:		B67 HA02 0.10 14-Jun-2023	B67 HA02 0.50 14-Jun-2023	B71 TP01 0.10 14-Jun-2023	B71 TP01 0.50 14-Jun-2023	B71 TP02 0.10 14-Jun-2023
Lab Number:		3299078.229	3299078.230	3299078.231	3299078.232	3299078.234
Phenols in SVOC Soil Samples by GC-MS						
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	< 1.0	< 1.1	< 1.0	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
1,3-Dichlorobenzene	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
1,4-Dichlorobenzene	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
Hexachlorobutadiene	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
Hexachloroethane	mg/kg dry wt	< 0.7	< 1.1	< 0.9	< 1.0	< 0.9
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 10
Carbazole	mg/kg dry wt	5.2	< 0.6	< 0.5	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	5.9	< 0.6	< 0.5	< 0.5	< 0.5
Isophorone	mg/kg dry wt	< 0.5	< 0.6	< 0.5	< 0.5	< 0.5
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Ethylbenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Toluene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
m&p-Xylene	mg/kg dry wt	-	-	< 0.6	< 0.6	-
o-Xylene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Carbon tetrachloride	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Chloroethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Chloromethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	-	< 0.5	< 0.5	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Dibromomethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,3-Dichloropropane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Dichlorodifluoromethane	mg/kg dry wt	-	-	< 0.5	< 0.5	-
1,1-Dichloroethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,2-Dichloroethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,1-Dichloroethene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
cis-1,2-Dichloroethene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
trans-1,2-Dichloroethene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Dichloromethane (methylene chloride)	mg/kg dry wt	-	-	< 6	< 6	-
1,2-Dichloropropane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,1-Dichloropropene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
cis-1,3-Dichloropropene	mg/kg dry wt	-	-	< 0.3	< 0.3	-

Sample Type: Soil						
Sample Name:		B67 HA02 0.10 14-Jun-2023	B67 HA02 0.50 14-Jun-2023	B71 TP01 0.10 14-Jun-2023	B71 TP01 0.50 14-Jun-2023	B71 TP02 0.10 14-Jun-2023
Lab Number:		3299078.229	3299078.230	3299078.231	3299078.232	3299078.234
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
trans-1,3-Dichloropropene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Hexachlorobutadiene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,1,1-Trichloroethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,1,2-Trichloroethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Trichlorofluoromethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,2,3-Trichloropropane	mg/kg dry wt	-	-	< 0.5	< 0.5	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Vinyl chloride	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,3-Dichlorobenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
4-Chlorotoluene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,2-Dichlorobenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,4-Dichlorobenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
2-Chlorotoluene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,2,3-Trichlorobenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,3,5-Trichlorobenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
tert-Butylbenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Isopropylbenzene (Cumene)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
n-Propylbenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
sec-Butylbenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Styrene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,2,4-Trimethylbenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
1,3,5-Trimethylbenzene	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	-	< 60	< 60	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	-	< 11	< 12	-
Acetone	mg/kg dry wt	-	-	< 60	< 60	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Bromoform (tribromomethane)	mg/kg dry wt	-	-	< 0.5	< 0.5	-
Chloroform (Trichloromethane)	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Dibromochloromethane	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	-	< 0.3	< 0.3	-
Naphthalene	mg/kg dry wt	-	-	< 0.3	< 0.3	-

Sample Name:		B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
Lab Number:		3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Individual Tests						
Dry Matter	g/100g as rcvd	57	53	69	71	90

Sample Type: Soil						
	Sample Name:	B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
	Lab Number:	3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	1.8	1.5	1.6	0.9	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	9	12	16	-
Total Recoverable Boron	mg/kg dry wt	< 20	210	300	< 20	-
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.43	0.50	0.35	-
Total Recoverable Chromium	mg/kg dry wt	26	12	10	15	-
Total Recoverable Copper	mg/kg dry wt	62	50	75	72	-
Total Recoverable Lead	mg/kg dry wt	22	88	104	85	-
Total Recoverable Mercury	mg/kg dry wt	0.38	0.85	0.29	0.28	-
Total Recoverable Nickel	mg/kg dry wt	11	25	41	7	-
Total Recoverable Zinc	mg/kg dry wt	67	220	164	160	-
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Bentazone	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Bromoxynil	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Clopyralid	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Dicamba	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Dichlorprop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Fluazifop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Fluroxypyr	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Haloxyfop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Oryzalin	mg/kg dry wt	-	< 0.4	< 0.4	< 0.4	-
Pentachlorophenol (PCP)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Picloram	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Quizalofop	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	-	< 0.4	< 0.4	< 0.4	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Triclopyr	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
alpha-BHC	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
beta-BHC	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
delta-BHC	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
gamma-BHC (Lindane)	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
cis-Chlordane	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
trans-Chlordane	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
2,4'-DDD	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
4,4'-DDD	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
2,4'-DDE	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
4,4'-DDE	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
2,4'-DDT	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
4,4'-DDT	mg/kg dry wt	-	< 0.019	0.019	< 0.014	-
Total DDT Isomers	mg/kg dry wt	-	< 0.11	< 0.09	< 0.09	-

Sample Type: Soil

Sample Name:		B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
Lab Number:		3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Organochlorine Pesticides Screening in Soil						
Dieldrin	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Endosulfan I	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Endosulfan II	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Endosulfan sulphate	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Endrin	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Endrin aldehyde	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Endrin ketone	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Heptachlor	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Heptachlor epoxide	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Hexachlorobenzene	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Methoxychlor	mg/kg dry wt	-	< 0.019	< 0.014	< 0.014	-
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Alachlor	mg/kg dry wt	-	< 0.05	< 0.05	< 0.05	-
Atrazine	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Atrazine-desethyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Atrazine-desisopropyl	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Azaconazole	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Azinphos-methyl	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Benalaxyl	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Bitertanol	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Bromacil	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Bromopropylate	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Butachlor	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Captan	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Carbaryl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Carbofuran	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Chlorfluazuron	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Chlorothalonil	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Chlorpyrifos	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Chlorpyrifos-methyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Chlortoluron	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Cyanazine	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Cyfluthrin	mg/kg dry wt	-	< 0.11	< 0.09	< 0.08	-
Cyhalothrin	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Cypermethrin	mg/kg dry wt	-	< 0.3	< 0.17	< 0.16	-
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Diazinon	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Dichlofluanid	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Dichloran	mg/kg dry wt	-	< 0.3	< 0.2	< 0.2	-
Dichlorvos	mg/kg dry wt	-	< 0.09	< 0.09	< 0.09	-
Difenoconazole	mg/kg dry wt	-	< 0.13	< 0.10	< 0.10	-
Dimethoate	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Diphenylamine	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Diuron	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Fenpropimorph	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Fluazifop-butyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Fluometuron	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Flusilazole	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Fluvalinate	mg/kg dry wt	-	< 0.07	< 0.05	< 0.05	-
Furalaxyl	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Haloxyfop-methyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Hexaconazole	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Hexazinone	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-

Sample Type: Soil						
Sample Name:		B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
Lab Number:		3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	< 0.5	< 0.4	< 0.4	-
Kresoxim-methyl	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Linuron	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Malathion	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Metalaxyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Methamidophos	mg/kg dry wt	-	< 0.5	< 0.4	< 0.4	-
Metolachlor	mg/kg dry wt	-	< 0.05	< 0.05	< 0.05	-
Metribuzin	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Molinate	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Myclobutanil	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Naled	mg/kg dry wt	-	< 0.5	< 0.4	< 0.4	-
Norflurazon	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Oxadiazon	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Oxyfluorfen	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Paclobutrazol	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Parathion-ethyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Parathion-methyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Pendimethalin	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Permethrin	mg/kg dry wt	-	< 0.03	< 0.03	< 0.03	-
Pirimicarb	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Pirimiphos-methyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Prochloraz	mg/kg dry wt	-	< 0.5	< 0.4	< 0.4	-
Procymidone	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Prometryn	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Propachlor	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Propanil	mg/kg dry wt	-	< 0.2	< 0.2	< 0.2	-
Propazine	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Propiconazole	mg/kg dry wt	-	< 0.07	< 0.05	< 0.05	-
Pyriproxyfen	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Quizalofop-ethyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Simazine	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Simetryn	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Sulfentrazone	mg/kg dry wt	-	< 0.5	< 0.4	< 0.4	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	< 0.18	< 0.14	< 0.13	-
Tebuconazole	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Terbacil	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Terbumeton	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Terbuthylazine	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Terbuthylazine-desethyl	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Terbutryn	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Thiabendazole	mg/kg dry wt	-	< 0.5	< 0.4	< 0.4	-
Thiobencarb	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Tolylfluanid	mg/kg dry wt	-	< 0.05	< 0.04	< 0.04	-
Triazophos	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Trifluralin	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Vinclozolin	mg/kg dry wt	-	< 0.09	< 0.07	< 0.07	-
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	-	-	-	< 0.3
1-Methylnaphthalene	mg/kg dry wt	-	-	-	-	< 0.011
2-Methylnaphthalene	mg/kg dry wt	-	-	-	-	< 0.011
Acenaphthylene	mg/kg dry wt	-	-	-	-	< 0.011
Acenaphthene	mg/kg dry wt	-	-	-	-	< 0.011
Anthracene	mg/kg dry wt	-	-	-	-	< 0.011

Sample Type: Soil						
Sample Name:		B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
Lab Number:		3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Benzo[a]anthracene	mg/kg dry wt	-	-	-	-	< 0.011
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	-	-	< 0.011
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	-	-	< 0.027
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	-	-	< 0.027
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	-	-	< 0.011
Benzo[e]pyrene	mg/kg dry wt	-	-	-	-	< 0.011
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	-	-	< 0.011
Benzo[k]fluoranthene	mg/kg dry wt	-	-	-	-	< 0.011
Chrysene	mg/kg dry wt	-	-	-	-	< 0.011
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	-	-	< 0.011
Fluoranthene	mg/kg dry wt	-	-	-	-	< 0.011
Fluorene	mg/kg dry wt	-	-	-	-	< 0.011
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	-	-	< 0.011
Naphthalene	mg/kg dry wt	-	-	-	-	< 0.06
Perylene	mg/kg dry wt	-	-	-	-	< 0.011
Phenanthrene	mg/kg dry wt	-	-	-	-	0.049
Pyrene	mg/kg dry wt	-	-	-	-	< 0.011
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.6	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.6	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.6	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.6	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.6	-	-	-	-
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 1.1	-	-	-	-
2,6-Dinitrotoluene	mg/kg dry wt	< 1.1	-	-	-	-
Nitrobenzene	mg/kg dry wt	< 0.6	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 1.1	-	-	-	-
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.1	-	-	-	-
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.6	-	-	-	-
alpha-BHC	mg/kg dry wt	< 0.6	-	-	-	-
beta-BHC	mg/kg dry wt	< 0.6	-	-	-	-
delta-BHC	mg/kg dry wt	< 0.6	-	-	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.6	-	-	-	-
4,4'-DDD	mg/kg dry wt	< 0.6	-	-	-	-
4,4'-DDE	mg/kg dry wt	< 0.6	-	-	-	-
4,4'-DDT	mg/kg dry wt	< 1.1	-	-	-	-
Dieldrin	mg/kg dry wt	< 0.6	-	-	-	-
Endosulfan I	mg/kg dry wt	< 1.1	-	-	-	-
Endosulfan II	mg/kg dry wt	< 2	-	-	-	-
Endosulfan sulphate	mg/kg dry wt	< 1.1	-	-	-	-
Endrin	mg/kg dry wt	< 1.1	-	-	-	-
Endrin ketone	mg/kg dry wt	< 1.1	-	-	-	-
Heptachlor	mg/kg dry wt	< 0.6	-	-	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.6	-	-	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.6	-	-	-	-
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	-	-	-	-
Acenaphthylene	mg/kg dry wt	< 0.5	-	-	-	-
Anthracene	mg/kg dry wt	< 0.5	-	-	-	-
Benzo[a]anthracene	mg/kg dry wt	< 0.5	-	-	-	-

Sample Type: Soil						
Sample Name:		B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
Lab Number:		3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.6	-	-	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.6	-	-	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.6	-	-	-	-
Benzo[k]fluoranthene	mg/kg dry wt	< 0.6	-	-	-	-
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	-	-	-	-
Chrysene	mg/kg dry wt	< 0.5	-	-	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.6	-	-	-	-
Fluoranthene	mg/kg dry wt	< 0.5	-	-	-	-
Fluorene	mg/kg dry wt	< 0.5	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.6	-	-	-	-
2-Methylnaphthalene	mg/kg dry wt	< 0.5	-	-	-	-
Naphthalene	mg/kg dry wt	< 0.5	-	-	-	-
Phenanthrene	mg/kg dry wt	< 0.5	-	-	-	-
Pyrene	mg/kg dry wt	< 0.5	-	-	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	-	-	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	-	-	-	-
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	-	-	-	-
2-Chlorophenol	mg/kg dry wt	< 1.0	-	-	-	-
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	-	-	-	-
2,4-Dimethylphenol	mg/kg dry wt	< 3	-	-	-	-
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	-	-	-	-
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	-	-	-	-
2-Nitrophenol	mg/kg dry wt	< 5	-	-	-	-
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	-	-	-	-
Phenol	mg/kg dry wt	< 1.1	-	-	-	-
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.1	-	-	-	-
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.1	-	-	-	-
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	-	-	-	-
Butylbenzylphthalate	mg/kg dry wt	< 1.1	-	-	-	-
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	-	-	-	-
Diethylphthalate	mg/kg dry wt	< 1.1	-	-	-	-
Dimethylphthalate	mg/kg dry wt	< 1.1	-	-	-	-
Di-n-butylphthalate	mg/kg dry wt	< 1.1	-	-	-	-
Di-n-octylphthalate	mg/kg dry wt	< 1.1	-	-	-	-
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 1.1	-	-	-	-
1,3-Dichlorobenzene	mg/kg dry wt	< 1.1	-	-	-	-
1,4-Dichlorobenzene	mg/kg dry wt	< 1.1	-	-	-	-
Hexachlorobutadiene	mg/kg dry wt	< 1.1	-	-	-	-
Hexachloroethane	mg/kg dry wt	< 1.1	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.6	-	-	-	-
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	-	-	-	-
Carbazole	mg/kg dry wt	< 0.6	-	-	-	-
Dibenzofuran	mg/kg dry wt	< 0.6	-	-	-	-
Isophorone	mg/kg dry wt	< 0.6	-	-	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	-	-	-	< 20
C10 - C14	mg/kg dry wt	-	-	-	-	< 20

Sample Type: Soil						
	Sample Name:	B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
	Lab Number:	3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Total Petroleum Hydrocarbons in Soil						
C15 - C36	mg/kg dry wt	-	-	-	-	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	-	-	-	< 80
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	-	-	-	< 0.16
Ethylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Toluene	mg/kg dry wt	-	-	-	-	< 0.3
m&p-Xylene	mg/kg dry wt	-	-	-	-	< 0.4
o-Xylene	mg/kg dry wt	-	-	-	-	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	-	-	-	< 0.3
Carbon tetrachloride	mg/kg dry wt	-	-	-	-	< 0.3
Chloroethane	mg/kg dry wt	-	-	-	-	< 0.3
Chloromethane	mg/kg dry wt	-	-	-	-	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	-	-	-	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	-	-	-	< 0.3
Dibromomethane	mg/kg dry wt	-	-	-	-	< 0.3
1,3-Dichloropropane	mg/kg dry wt	-	-	-	-	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	-	-	-	-	< 0.5
1,1-Dichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,2-Dichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,1-Dichloroethene	mg/kg dry wt	-	-	-	-	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	-	-	-	-	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	-	-	-	-	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	-	-	-	-	< 4
1,2-Dichloropropane	mg/kg dry wt	-	-	-	-	< 0.3
1,1-Dichloropropene	mg/kg dry wt	-	-	-	-	< 0.3
cis-1,3-Dichloropropene	mg/kg dry wt	-	-	-	-	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	-	-	-	-	< 0.3
Hexachlorobutadiene	mg/kg dry wt	-	-	-	-	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	-	-	-	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	-	-	-	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	-	-	-	< 0.3
Trichlorofluoromethane	mg/kg dry wt	-	-	-	-	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	-	-	-	-	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	-	-	-	< 0.3
Vinyl chloride	mg/kg dry wt	-	-	-	-	< 0.3
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
4-Chlorotoluene	mg/kg dry wt	-	-	-	-	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	-	-	-	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
2-Chlorotoluene	mg/kg dry wt	-	-	-	-	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3

Sample Type: Soil						
Sample Name:		B71 TP02 0.50 14-Jun-2023	DIP HA01 0.10 14-Jun-2023	DIP HA02 0.10 14-Jun-2023	DIP HA03 0.10 14-Jun-2023	B16 TP01 0.1
Lab Number:		3299078.235	3299078.237	3299078.239	3299078.241	3299078.245
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
tert-Butylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Isopropylbenzene (Cumene)	mg/kg dry wt	-	-	-	-	< 0.3
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	-	-	-	< 0.3
n-Propylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
sec-Butylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Styrene	mg/kg dry wt	-	-	-	-	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	-	-	-	< 40
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	-	-	-	< 7
Acetone	mg/kg dry wt	-	-	-	-	< 40
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	-	-	-	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	-	-	-	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	-	-	-	-	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	-	-	-	-	< 0.3
Dibromochloromethane	mg/kg dry wt	-	-	-	-	< 0.3
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	-	-	-	< 0.3
Naphthalene	mg/kg dry wt	-	-	-	-	< 0.3

Sample Name:		B16 TP01 0.5	B16 TP02 0.1	B16 TP02 0.5	B19 TP01 0.1 19-Jun-2023	B19 TP01 0.5 19-Jun-2023
Lab Number:		3299078.246	3299078.248	3299078.249	3299078.251	3299078.252
Individual Tests						
Dry Matter	g/100g as rcvd	81	91	77	-	-
Total Recoverable Beryllium	mg/kg dry wt	-	-	-	1.0	1.1
pH*	pH Units	-	-	-	7.0	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	-	-	-	12	5
Total Recoverable Boron	mg/kg dry wt	-	-	-	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	-	-	-	0.27	< 0.10
Total Recoverable Chromium	mg/kg dry wt	-	-	-	12	8
Total Recoverable Copper	mg/kg dry wt	-	-	-	36	18
Total Recoverable Lead	mg/kg dry wt	-	-	-	240	54
Total Recoverable Mercury	mg/kg dry wt	-	-	-	0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	-	-	-	7	5
Total Recoverable Zinc	mg/kg dry wt	-	-	-	171	76
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.3	< 0.3	< 0.4	-	-
1-Methylnaphthalene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
2-Methylnaphthalene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Acenaphthylene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Acenaphthene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Anthracene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Benzo[a]anthracene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.017	< 0.011	< 0.013	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.029	< 0.026	< 0.031	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.029	< 0.026	< 0.031	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.016	< 0.011	< 0.013	-	-
Benzo[e]pyrene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-

Sample Type: Soil						
Sample Name:		B16 TP01 0.5	B16 TP02 0.1	B16 TP02 0.5	B19 TP01 0.1 19-Jun-2023	B19 TP01 0.5 19-Jun-2023
Lab Number:		3299078.246	3299078.248	3299078.249	3299078.251	3299078.252
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Benzo[g,h,i]perylene	mg/kg dry wt	0.013	< 0.011	< 0.013	-	-
Benzo[k]fluoranthene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Chrysene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Fluoranthene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Fluorene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.012	< 0.011	< 0.013	-	-
Naphthalene	mg/kg dry wt	< 0.06	< 0.06	< 0.07	-	-
Perylene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Phenanthrene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Pyrene	mg/kg dry wt	< 0.012	< 0.011	< 0.013	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 20	< 20	< 20	-	-
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	-	-
C15 - C36	mg/kg dry wt	< 40	< 40	< 40	-	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 80	< 80	< 80	-	-
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.19	< 0.15	< 0.3	-	-
Ethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Toluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
m&p-Xylene	mg/kg dry wt	< 0.4	< 0.3	< 0.5	-	-
o-Xylene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Carbon tetrachloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Chloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Chloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dibromomethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
1,1-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dichloromethane (methylene chloride)	mg/kg dry wt	< 4	< 3	< 5	-	-
1,2-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Hexachlorobutadiene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Trichlorofluoromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-

Sample Type: Soil						
Sample Name:		B16 TP01 0.5	B16 TP02 0.1	B16 TP02 0.5	B19 TP01 0.1 19-Jun-2023	B19 TP01 0.5 19-Jun-2023
Lab Number:		3299078.246	3299078.248	3299078.249	3299078.251	3299078.252
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Vinyl chloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
4-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
2-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
tert-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
n-Propylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
sec-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Styrene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 40	< 30	< 50	-	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 8	< 6	< 9	-	-
Acetone	mg/kg dry wt	< 40	< 30	< 50	-	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Dibromochloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-
Naphthalene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	-	-

Sample Name:		B19 TP02 0.1 19-Jun-2023	B19 TP02 0.5 19-Jun-2023	B25 HA01 0.1 20-Jun-2023	B25 HA01 0.5 20-Jun-2023	B25 HA02 0.1 20-Jun-2023
Lab Number:		3299078.254	3299078.255	3299078.257	3299078.258	3299078.260
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	1.6	0.7	1.1	0.5	0.7
pH*	pH Units	-	-	6.4	-	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	7	3	6	4	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.80	< 0.10	0.21	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	11	9	9	7	9
Total Recoverable Copper	mg/kg dry wt	43	10	18	8	17
Total Recoverable Lead	mg/kg dry wt	58	20	17.8	15.5	22
Total Recoverable Mercury	mg/kg dry wt	0.22	< 0.10	0.13	< 0.10	0.12
Total Recoverable Nickel	mg/kg dry wt	6	4	5	3	5
Total Recoverable Zinc	mg/kg dry wt	131	42	109	34	65

Sample Type: Soil						
	Sample Name:	B25 HA02 0.5 20-Jun-2023	B25 HA03 0.1 20-Jun-2023	B25 HA03 0.5 20-Jun-2023	B26 TP01 0.1 19-Jun-2023	B26 TP02 0.1 19-Jun-2023
	Lab Number:	3299078.261	3299078.263	3299078.264	3299078.266	3299078.267
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	-	70	78
Total Recoverable Beryllium	mg/kg dry wt	0.8	0.7	0.6	1.1	1.1
pH*	pH Units	-	-	-	7.8	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	4	5	8	7
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	40	47
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	0.31	0.33
Total Recoverable Chromium	mg/kg dry wt	9	9	11	13	13
Total Recoverable Copper	mg/kg dry wt	14	12	12	69	71
Total Recoverable Lead	mg/kg dry wt	16.6	16.7	16.8	290	260
Total Recoverable Mercury	mg/kg dry wt	0.11	< 0.10	< 0.10	0.17	0.17
Total Recoverable Nickel	mg/kg dry wt	5	4	6	7	8
Total Recoverable Zinc	mg/kg dry wt	42	77	57	158	149
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	-	-	-	< 0.5	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	-	-	-	< 0.5	< 0.4
4-Chlorophenyl phenyl ether	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	-	-	-	< 1.0	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	-	-	-	< 0.9	< 0.8
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	-	-	-	< 0.9	< 0.8
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	-	-	-	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	-	-	-	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	-	-	-	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	-	-	-	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	-	-	-	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	-	-	-	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Endosulfan I	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Endosulfan II	mg/kg dry wt	-	-	-	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Endrin	mg/kg dry wt	-	-	-	< 0.9	< 0.8
Endrin ketone	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Anthracene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	-	0.7	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	-	0.8	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	-	0.6	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	-	-	-	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		B25 HA02 0.5 20-Jun-2023	B25 HA03 0.1 20-Jun-2023	B25 HA03 0.5 20-Jun-2023	B26 TP01 0.1 19-Jun-2023	B26 TP02 0.1 19-Jun-2023
Lab Number:		3299078.261	3299078.263	3299078.264	3299078.266	3299078.267
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Chrysene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Fluorene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	-	0.8	< 0.5
2-Methylnaphthalene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Pyrene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	-	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	-	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	-	-	-	< 5	< 5
2-Chlorophenol	mg/kg dry wt	-	-	-	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	-	-	-	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	-	-	-	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	-	-	-	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	-	-	-	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	-	-	-	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	-	< 30	< 30
Phenol	mg/kg dry wt	-	-	-	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	-	-	-	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	-	-	-	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	-	-	-	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	-	-	-	< 0.9	< 0.8
1,3-Dichlorobenzene	mg/kg dry wt	-	-	-	< 0.9	< 0.8
1,4-Dichlorobenzene	mg/kg dry wt	-	-	-	< 0.9	< 0.8
Hexachlorobutadiene	mg/kg dry wt	-	-	-	< 0.9	< 0.8
Hexachloroethane	mg/kg dry wt	-	-	-	< 0.9	< 0.8
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	-	-	-	< 10	< 10
Carbazole	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Isophorone	mg/kg dry wt	-	-	-	< 0.5	< 0.5
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	-	-	< 20	< 20
C10 - C14	mg/kg dry wt	-	-	-	< 20	< 20
C15 - C36	mg/kg dry wt	-	-	-	64	54
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	-	-	< 80	< 80

Sample Name:		B26 TP02 0.5 19-Jun-2023	B26 TP03 0.1 19-Jun-2023	B26 TP03 0.5 19-Jun-2023	B59 TP02 0.1	B59 TP02 0.5
Lab Number:		3299078.268	3299078.270	3299078.271	3299078.273	3299078.274

Sample Type: Soil						
	Sample Name:	B26 TP02 0.5 19-Jun-2023	B26 TP03 0.1 19-Jun-2023	B26 TP03 0.5 19-Jun-2023	B59 TP02 0.1	B59 TP02 0.5
	Lab Number:	3299078.268	3299078.270	3299078.271	3299078.273	3299078.274
Individual Tests						
Dry Matter	g/100g as rcvd	67	74	67	92	92
Total Recoverable Beryllium	mg/kg dry wt	1.2	1.3	1.3	0.7	0.7
pH*	pH Units	-	-	-	10.0	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	7	6	4	4
Total Recoverable Boron	mg/kg dry wt	31	32	23	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.13	0.42	0.28	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	12	11	26	28
Total Recoverable Copper	mg/kg dry wt	38	68	43	16	16
Total Recoverable Lead	mg/kg dry wt	44	260	260	12.0	12.9
Total Recoverable Mercury	mg/kg dry wt	0.13	0.15	0.17	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	6	7	6	12	15
Total Recoverable Zinc	mg/kg dry wt	63	151	103	60	61
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Bentazone	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dicamba	mg/kg dry wt	-	-	-	1.6	1.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	-	-	-	3.9	3.5
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Picloram	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	-	-	-	3.9	4.6
Triclopyr	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	-	-	< 0.011	< 0.011
alpha-BHC	mg/kg dry wt	-	-	-	< 0.011	< 0.011
beta-BHC	mg/kg dry wt	-	-	-	< 0.011	< 0.011
delta-BHC	mg/kg dry wt	-	-	-	< 0.011	< 0.011
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	< 0.011	< 0.011
cis-Chlordane	mg/kg dry wt	-	-	-	< 0.011	< 0.011
trans-Chlordane	mg/kg dry wt	-	-	-	< 0.011	< 0.011
2,4'-DDD	mg/kg dry wt	-	-	-	< 0.011	< 0.011
4,4'-DDD	mg/kg dry wt	-	-	-	< 0.011	< 0.011
2,4'-DDE	mg/kg dry wt	-	-	-	< 0.011	< 0.011
4,4'-DDE	mg/kg dry wt	-	-	-	< 0.011	< 0.011
2,4'-DDT	mg/kg dry wt	-	-	-	< 0.011	< 0.011

Sample Type: Soil						
	Sample Name:	B26 TP02 0.5 19-Jun-2023	B26 TP03 0.1 19-Jun-2023	B26 TP03 0.5 19-Jun-2023	B59 TP02 0.1	B59 TP02 0.5
	Lab Number:	3299078.268	3299078.270	3299078.271	3299078.273	3299078.274
Organochlorine Pesticides Screening in Soil						
4,4'-DDT	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Total DDT Isomers	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Dieldrin	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Endosulfan I	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Endosulfan II	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Endosulfan sulphate	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Endrin	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Endrin aldehyde	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Endrin ketone	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Heptachlor	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Methoxychlor	mg/kg dry wt	-	-	-	< 0.011	< 0.011
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Alachlor	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Atrazine	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Atrazine-desethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Atrazine-desisopropyl	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Azaconazole	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Azinphos-methyl	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Benalaxyl	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Bitertanol	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Bromacil	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Bromopropylate	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Butachlor	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Captan	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Carbaryl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Carbofuran	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Chlorfluazuron	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Chlorothalonil	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Chlorpyrifos	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Chlorpyrifos-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Chlortoluron	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Cyanazine	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Cyfluthrin	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Cyhalothrin	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Cypermethrin	mg/kg dry wt	-	-	-	< 0.13	< 0.13
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Diazinon	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Dichlofluanid	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Dichloran	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	-	-	-	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	-	-	-	< 0.09	< 0.09
Dimethoate	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Diphenylamine	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Diuron	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Fenpropimorph	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Fluazifop-butyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Fluometuron	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Flusilazole	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Fluvalinate	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Haloxyfop-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06

Sample Type: Soil						
	Sample Name:	B26 TP02 0.5 19-Jun-2023	B26 TP03 0.1 19-Jun-2023	B26 TP03 0.5 19-Jun-2023	B59 TP02 0.1	B59 TP02 0.5
	Lab Number:	3299078.268	3299078.270	3299078.271	3299078.273	3299078.274
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Hexaconazole	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Hexazinone	mg/kg dry wt	-	-	-	< 0.03	< 0.03
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	-	-	< 0.3	< 0.3
Kresoxim-methyl	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Linuron	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Malathion	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Metalaxyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Methamidophos	mg/kg dry wt	-	-	-	< 0.3	< 0.3
Metolachlor	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Molinate	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Myclobutanil	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Naled	mg/kg dry wt	-	-	-	< 0.3	< 0.3
Norflurazon	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Oxadiazon	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Oxyfluorfen	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Paclobutrazol	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Parathion-ethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Parathion-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Pendimethalin	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Permethrin	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Pirimiphos-methyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Prochloraz	mg/kg dry wt	-	-	-	< 0.3	< 0.3
Procymidone	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Prometryn	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Propachlor	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Propanil	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Propazine	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Propiconazole	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Quizalofop-ethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Simazine	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Simetryn	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Sulfentrazone	mg/kg dry wt	-	-	-	< 0.3	< 0.3
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	-	-	< 0.11	< 0.11
Tebuconazole	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Terbacil	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Terbumeton	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Terbuthylazine	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Terbuthylazine-desethyl	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Terbutryn	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Thiabendazole	mg/kg dry wt	-	-	-	< 0.3	< 0.3
Thiobencarb	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Tolylfluanid	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Triazophos	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Trifluralin	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Vinclozolin	mg/kg dry wt	-	-	-	< 0.06	< 0.06
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.4	< 0.5	-	-

Sample Type: Soil						
	Sample Name:	B26 TP02 0.5 19-Jun-2023	B26 TP03 0.1 19-Jun-2023	B26 TP03 0.5 19-Jun-2023	B59 TP02 0.1	B59 TP02 0.5
	Lab Number:	3299078.268	3299078.270	3299078.271	3299078.273	3299078.274
Haloethers in SVOC Soil Samples by GC-MS						
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
alpha-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
beta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
delta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Dieldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Endosulfan I	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	-	-
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Endrin	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
Endrin ketone	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Heptachlor	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	-	-
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	-	-
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	-	-

Sample Type: Soil						
	Sample Name:	B26 TP02 0.5 19-Jun-2023	B26 TP03 0.1 19-Jun-2023	B26 TP03 0.5 19-Jun-2023	B59 TP02 0.1	B59 TP02 0.5
	Lab Number:	3299078.268	3299078.270	3299078.271	3299078.273	3299078.274
Phenols in SVOC Soil Samples by GC-MS						
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	-	-
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
2-Nitrophenol	mg/kg dry wt	< 5	< 5	< 5	-	-
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	-	-
Phenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	-	-
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Di-n-octylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	-	-
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
1,3-Dichlorobenzene	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
1,4-Dichlorobenzene	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
Hexachlorobutadiene	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
Hexachloroethane	mg/kg dry wt	< 0.9	< 0.8	< 0.9	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	-	-
Carbazole	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Dibenzofuran	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Isophorone	mg/kg dry wt	< 0.5	< 0.5	< 0.5	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	< 20	< 30	-	-
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	-	-
C15 - C36	mg/kg dry wt	< 40	99	< 40	-	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	99	< 90	-	-

	Sample Name:	B59 TP03 0.1	B65 TP01 0.1 16-Jun-2023	B65 TP01 0.5 16-Jun-2023	B65 TP01 1.5 16-Jun-2023	B65 TP02 0.1 16-Jun-2023
	Lab Number:	3299078.275	3299078.276	3299078.277	3299078.278	3299078.279
Individual Tests						
Dry Matter	g/100g as rcvd	92	89	70	65	70
Total Recoverable Beryllium	mg/kg dry wt	0.5	-	-	-	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	-	-	-	-
Total Recoverable Boron	mg/kg dry wt	< 20	-	-	-	-
Total Recoverable Cadmium	mg/kg dry wt	0.12	-	-	-	-
Total Recoverable Chromium	mg/kg dry wt	30	-	-	-	-
Total Recoverable Copper	mg/kg dry wt	13	-	-	-	-
Total Recoverable Lead	mg/kg dry wt	13.1	-	-	-	-
Total Recoverable Mercury	mg/kg dry wt	< 0.10	-	-	-	-
Total Recoverable Nickel	mg/kg dry wt	15	-	-	-	-
Total Recoverable Zinc	mg/kg dry wt	137	-	-	-	-
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	-	-	-	-
Bentazone	mg/kg dry wt	< 0.2	-	-	-	-
Bromoxynil	mg/kg dry wt	< 0.2	-	-	-	-
Clopyralid	mg/kg dry wt	< 0.2	-	-	-	-

Sample Type: Soil						
Sample Name:		B59 TP03 0.1	B65 TP01 0.1 16-Jun-2023	B65 TP01 0.5 16-Jun-2023	B65 TP01 1.5 16-Jun-2023	B65 TP02 0.1 16-Jun-2023
Lab Number:		3299078.275	3299078.276	3299078.277	3299078.278	3299078.279
Acid Herbicides Screen in Soil by LCMSMS						
Dicamba	mg/kg dry wt	< 0.2	-	-	-	-
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	-	-	-	-
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	-	-	-	-
Dichlorprop	mg/kg dry wt	< 0.2	-	-	-	-
Fluazifop	mg/kg dry wt	< 0.2	-	-	-	-
Fluroxypyr	mg/kg dry wt	< 0.2	-	-	-	-
Haloxyfop	mg/kg dry wt	< 0.2	-	-	-	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	-	-	-	-
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	-	-	-	-
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	-	-	-	-
Oryzalin	mg/kg dry wt	< 0.4	-	-	-	-
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	-	-	-	-
Picloram	mg/kg dry wt	< 0.2	-	-	-	-
Quizalofop	mg/kg dry wt	< 0.2	-	-	-	-
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	-	-	-	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	-	-	-	-
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	0.4	-	-	-	-
Triclopyr	mg/kg dry wt	< 0.2	-	-	-	-
BTEX in Soil by Headspace GC-MS						
Benzene	mg/kg dry wt	-	< 0.05	< 0.07	< 0.08	< 0.07
Toluene	mg/kg dry wt	-	< 0.05	< 0.07	< 0.08	< 0.07
Ethylbenzene	mg/kg dry wt	-	< 0.05	< 0.07	< 0.08	< 0.07
m&p-Xylene	mg/kg dry wt	-	< 0.10	< 0.13	< 0.15	< 0.13
o-Xylene	mg/kg dry wt	-	< 0.05	< 0.07	< 0.08	< 0.07
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.011	-	-	-	-
alpha-BHC	mg/kg dry wt	< 0.011	-	-	-	-
beta-BHC	mg/kg dry wt	< 0.011	-	-	-	-
delta-BHC	mg/kg dry wt	< 0.011	-	-	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.011	-	-	-	-
cis-Chlordane	mg/kg dry wt	< 0.011	-	-	-	-
trans-Chlordane	mg/kg dry wt	< 0.011	-	-	-	-
2,4'-DDD	mg/kg dry wt	< 0.011	-	-	-	-
4,4'-DDD	mg/kg dry wt	< 0.011	-	-	-	-
2,4'-DDE	mg/kg dry wt	< 0.011	-	-	-	-
4,4'-DDE	mg/kg dry wt	< 0.011	-	-	-	-
2,4'-DDT	mg/kg dry wt	< 0.011	-	-	-	-
4,4'-DDT	mg/kg dry wt	< 0.011	-	-	-	-
Total DDT Isomers	mg/kg dry wt	< 0.07	-	-	-	-
Dieldrin	mg/kg dry wt	< 0.011	-	-	-	-
Endosulfan I	mg/kg dry wt	< 0.011	-	-	-	-
Endosulfan II	mg/kg dry wt	< 0.011	-	-	-	-
Endosulfan sulphate	mg/kg dry wt	< 0.011	-	-	-	-
Endrin	mg/kg dry wt	< 0.011	-	-	-	-
Endrin aldehyde	mg/kg dry wt	< 0.011	-	-	-	-
Endrin ketone	mg/kg dry wt	< 0.011	-	-	-	-
Heptachlor	mg/kg dry wt	< 0.011	-	-	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.011	-	-	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.011	-	-	-	-

Sample Type: Soil						
Sample Name:		B59 TP03 0.1	B65 TP01 0.1 16-Jun-2023	B65 TP01 0.5 16-Jun-2023	B65 TP01 1.5 16-Jun-2023	B65 TP02 0.1 16-Jun-2023
Lab Number:		3299078.275	3299078.276	3299078.277	3299078.278	3299078.279
Organochlorine Pesticides Screening in Soil						
Methoxychlor	mg/kg dry wt	< 0.011	-	-	-	-
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.06	-	-	-	-
Alachlor	mg/kg dry wt	< 0.05	-	-	-	-
Atrazine	mg/kg dry wt	< 0.06	-	-	-	-
Atrazine-desethyl	mg/kg dry wt	< 0.06	-	-	-	-
Atrazine-desisopropyl	mg/kg dry wt	< 0.11	-	-	-	-
Azaconazole	mg/kg dry wt	< 0.03	-	-	-	-
Azinphos-methyl	mg/kg dry wt	< 0.11	-	-	-	-
Benalaxyl	mg/kg dry wt	< 0.03	-	-	-	-
Bitertanol	mg/kg dry wt	< 0.11	-	-	-	-
Bromacil	mg/kg dry wt	< 0.06	-	-	-	-
Bromopropylate	mg/kg dry wt	< 0.06	-	-	-	-
Butachlor	mg/kg dry wt	< 0.06	-	-	-	-
Captan	mg/kg dry wt	< 0.11	-	-	-	-
Carbaryl	mg/kg dry wt	< 0.06	-	-	-	-
Carbofuran	mg/kg dry wt	< 0.06	-	-	-	-
Chlorfluazuron	mg/kg dry wt	< 0.06	-	-	-	-
Chlorothalonil	mg/kg dry wt	< 0.06	-	-	-	-
Chlorpyrifos	mg/kg dry wt	< 0.06	-	-	-	-
Chlorpyrifos-methyl	mg/kg dry wt	< 0.06	-	-	-	-
Chlortoluron	mg/kg dry wt	< 0.11	-	-	-	-
Cyanazine	mg/kg dry wt	< 0.06	-	-	-	-
Cyfluthrin	mg/kg dry wt	< 0.07	-	-	-	-
Cyhalothrin	mg/kg dry wt	< 0.06	-	-	-	-
Cypermethrin	mg/kg dry wt	< 0.13	-	-	-	-
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.06	-	-	-	-
Diazinon	mg/kg dry wt	< 0.03	-	-	-	-
Dichlofluanid	mg/kg dry wt	< 0.06	-	-	-	-
Dichloran	mg/kg dry wt	< 0.2	-	-	-	-
Dichlorvos	mg/kg dry wt	< 0.09	-	-	-	-
Difenoconazole	mg/kg dry wt	< 0.09	-	-	-	-
Dimethoate	mg/kg dry wt	< 0.11	-	-	-	-
Diphenylamine	mg/kg dry wt	< 0.11	-	-	-	-
Diuron	mg/kg dry wt	< 0.06	-	-	-	-
Fenpropimorph	mg/kg dry wt	< 0.06	-	-	-	-
Fluazifop-butyl	mg/kg dry wt	< 0.06	-	-	-	-
Fluometuron	mg/kg dry wt	< 0.06	-	-	-	-
Flusilazole	mg/kg dry wt	< 0.06	-	-	-	-
Fluvalinate	mg/kg dry wt	< 0.05	-	-	-	-
Furalaxyl	mg/kg dry wt	< 0.03	-	-	-	-
Haloxyfop-methyl	mg/kg dry wt	< 0.06	-	-	-	-
Hexaconazole	mg/kg dry wt	< 0.06	-	-	-	-
Hexazinone	mg/kg dry wt	< 0.03	-	-	-	-
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.3	-	-	-	-
Kresoxim-methyl	mg/kg dry wt	< 0.03	-	-	-	-
Linuron	mg/kg dry wt	< 0.06	-	-	-	-
Malathion	mg/kg dry wt	< 0.06	-	-	-	-
Metalaxyl	mg/kg dry wt	< 0.06	-	-	-	-
Methamidophos	mg/kg dry wt	< 0.3	-	-	-	-
Metolachlor	mg/kg dry wt	< 0.05	-	-	-	-
Metribuzin	mg/kg dry wt	< 0.06	-	-	-	-
Molinate	mg/kg dry wt	< 0.11	-	-	-	-

Sample Type: Soil						
Sample Name:		B59 TP03 0.1	B65 TP01 0.1 16-Jun-2023	B65 TP01 0.5 16-Jun-2023	B65 TP01 1.5 16-Jun-2023	B65 TP02 0.1 16-Jun-2023
Lab Number:		3299078.275	3299078.276	3299078.277	3299078.278	3299078.279
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Myclobutanil	mg/kg dry wt	< 0.06	-	-	-	-
Naled	mg/kg dry wt	< 0.3	-	-	-	-
Norflurazon	mg/kg dry wt	< 0.11	-	-	-	-
Oxadiazon	mg/kg dry wt	< 0.06	-	-	-	-
Oxyfluorfen	mg/kg dry wt	< 0.03	-	-	-	-
Paclobutrazol	mg/kg dry wt	< 0.06	-	-	-	-
Parathion-ethyl	mg/kg dry wt	< 0.06	-	-	-	-
Parathion-methyl	mg/kg dry wt	< 0.06	-	-	-	-
Pendimethalin	mg/kg dry wt	< 0.06	-	-	-	-
Permethrin	mg/kg dry wt	< 0.03	-	-	-	-
Pirimicarb	mg/kg dry wt	< 0.06	-	-	-	-
Pirimiphos-methyl	mg/kg dry wt	< 0.06	-	-	-	-
Prochloraz	mg/kg dry wt	< 0.3	-	-	-	-
Procymidone	mg/kg dry wt	< 0.06	-	-	-	-
Prometryn	mg/kg dry wt	< 0.03	-	-	-	-
Propachlor	mg/kg dry wt	< 0.06	-	-	-	-
Propanil	mg/kg dry wt	< 0.2	-	-	-	-
Propazine	mg/kg dry wt	< 0.03	-	-	-	-
Propiconazole	mg/kg dry wt	< 0.05	-	-	-	-
Pyriproxyfen	mg/kg dry wt	< 0.06	-	-	-	-
Quizalofop-ethyl	mg/kg dry wt	< 0.06	-	-	-	-
Simazine	mg/kg dry wt	< 0.06	-	-	-	-
Simetryn	mg/kg dry wt	< 0.06	-	-	-	-
Sulfentrazone	mg/kg dry wt	< 0.3	-	-	-	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.11	-	-	-	-
Tebuconazole	mg/kg dry wt	< 0.06	-	-	-	-
Terbacil	mg/kg dry wt	< 0.06	-	-	-	-
Terbumeton	mg/kg dry wt	< 0.06	-	-	-	-
Terbuthylazine	mg/kg dry wt	< 0.03	-	-	-	-
Terbuthylazine-desethyl	mg/kg dry wt	< 0.06	-	-	-	-
Terbutryn	mg/kg dry wt	< 0.06	-	-	-	-
Thiabendazole	mg/kg dry wt	< 0.3	-	-	-	-
Thiobencarb	mg/kg dry wt	< 0.06	-	-	-	-
Tolylfluanid	mg/kg dry wt	< 0.03	-	-	-	-
Triazophos	mg/kg dry wt	< 0.06	-	-	-	-
Trifluralin	mg/kg dry wt	< 0.06	-	-	-	-
Vinclozolin	mg/kg dry wt	< 0.06	-	-	-	-
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	59	< 0.4	0.5	3.6
1-Methylnaphthalene	mg/kg dry wt	-	0.122	< 0.015	< 0.016	< 0.014
2-Methylnaphthalene	mg/kg dry wt	-	0.092	< 0.015	< 0.016	< 0.014
Acenaphthylene	mg/kg dry wt	-	0.112	< 0.015	< 0.016	< 0.014
Acenaphthene	mg/kg dry wt	-	0.78	< 0.015	< 0.016	0.021
Anthracene	mg/kg dry wt	-	1.64	< 0.015	< 0.016	0.038
Benzo[a]anthracene	mg/kg dry wt	-	4.2	< 0.015	0.036	0.24
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	4.9	0.016	0.048	0.32
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	7.2	< 0.035	0.072	0.47
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	7.1	< 0.035	0.071	0.46
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	5.5	0.020	0.054	0.35
Benzo[e]pyrene	mg/kg dry wt	-	2.6	< 0.015	0.026	0.20
Benzo[g,h,i]perylene	mg/kg dry wt	-	3.2	< 0.015	0.030	0.22
Benzo[k]fluoranthene	mg/kg dry wt	-	2.1	< 0.015	0.023	0.135

Sample Type: Soil						
Sample Name:		B59 TP03 0.1	B65 TP01 0.1 16-Jun-2023	B65 TP01 0.5 16-Jun-2023	B65 TP01 1.5 16-Jun-2023	B65 TP02 0.1 16-Jun-2023
Lab Number:		3299078.275	3299078.276	3299078.277	3299078.278	3299078.279
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Chrysene	mg/kg dry wt	-	4.1	0.015	0.035	0.26
Dibenzo[a,h]anthracene	mg/kg dry wt	-	0.67	< 0.015	< 0.016	0.048
Fluoranthene	mg/kg dry wt	-	9.1	0.030	0.072	0.59
Fluorene	mg/kg dry wt	-	0.48	< 0.015	< 0.016	0.016
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	3.6	< 0.015	0.036	0.22
Naphthalene	mg/kg dry wt	-	0.06	< 0.08	< 0.08	< 0.07
Perylene	mg/kg dry wt	-	1.41	< 0.015	0.023	0.066
Phenanthrene	mg/kg dry wt	-	5.5	< 0.015	0.031	0.30
Pyrene	mg/kg dry wt	-	8.9	0.026	0.068	0.57
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	< 20	< 20	< 30	< 20
C10 - C14	mg/kg dry wt	-	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	-	300	< 40	< 40	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	320	< 80	< 90	< 80

Sample Name:		B65 TP02 1.0 16-Jun-2023	B65 TP03 0.1 16-Jun-2023	B65 TP03 0.5 16-Jun-2023	B65 TP03 1.5 16-Jun-2023	B73 TP01 0.1 20-Jun-2023
Lab Number:		3299078.280	3299078.281	3299078.282	3299078.283	3299078.284
Individual Tests						
Dry Matter	g/100g as rcvd	67	95	66	61	69
Total Recoverable Beryllium	mg/kg dry wt	-	-	-	-	1.1
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	-	-	-	-	7
Total Recoverable Boron	mg/kg dry wt	-	-	-	-	< 20
Total Recoverable Cadmium	mg/kg dry wt	-	-	-	-	0.40
Total Recoverable Chromium	mg/kg dry wt	-	-	-	-	10
Total Recoverable Copper	mg/kg dry wt	-	-	-	-	20
Total Recoverable Lead	mg/kg dry wt	-	-	-	-	47
Total Recoverable Mercury	mg/kg dry wt	-	-	-	-	0.13
Total Recoverable Nickel	mg/kg dry wt	-	-	-	-	4
Total Recoverable Zinc	mg/kg dry wt	-	-	-	-	73
BTEX in Soil by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.07	< 0.05	< 0.07	< 0.08	-
Toluene	mg/kg dry wt	< 0.07	< 0.05	< 0.07	< 0.08	-
Ethylbenzene	mg/kg dry wt	< 0.07	< 0.05	< 0.07	< 0.08	-
m&p-Xylene	mg/kg dry wt	< 0.14	< 0.10	< 0.14	< 0.15	-
o-Xylene	mg/kg dry wt	< 0.07	< 0.05	< 0.07	< 0.08	-
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.4	9.6	< 0.4	< 0.4	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.015	0.015	< 0.015	< 0.016	< 0.015
2-Methylnaphthalene	mg/kg dry wt	< 0.015	0.011	< 0.015	< 0.016	< 0.015
Acenaphthylene	mg/kg dry wt	< 0.015	0.012	< 0.015	< 0.016	< 0.015
Acenaphthene	mg/kg dry wt	< 0.015	0.131	< 0.015	< 0.016	< 0.015
Anthracene	mg/kg dry wt	< 0.015	0.28	< 0.015	< 0.016	< 0.015
Benzo[a]anthracene	mg/kg dry wt	< 0.015	0.73	< 0.015	< 0.016	< 0.015
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.015	0.75	< 0.015	< 0.016	< 0.015
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.035	1.13	< 0.036	< 0.039	< 0.035
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.035	1.12	< 0.036	< 0.039	< 0.035
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.015	0.87	< 0.015	< 0.016	< 0.015
Benzo[e]pyrene	mg/kg dry wt	< 0.015	0.38	< 0.015	< 0.016	< 0.015
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.015	0.45	< 0.015	< 0.016	< 0.015
Benzo[k]fluoranthene	mg/kg dry wt	< 0.015	0.33	< 0.015	< 0.016	< 0.015
Chrysene	mg/kg dry wt	< 0.015	0.65	< 0.015	< 0.016	< 0.015

Sample Type: Soil						
Sample Name:		B65 TP02 1.0 16-Jun-2023	B65 TP03 0.1 16-Jun-2023	B65 TP03 0.5 16-Jun-2023	B65 TP03 1.5 16-Jun-2023	B73 TP01 0.1 20-Jun-2023
Lab Number:		3299078.280	3299078.281	3299078.282	3299078.283	3299078.284
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.015	0.111	< 0.015	< 0.016	< 0.015
Fluoranthene	mg/kg dry wt	< 0.015	1.66	< 0.015	< 0.016	< 0.015
Fluorene	mg/kg dry wt	< 0.015	0.100	< 0.015	< 0.016	< 0.015
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.015	0.53	< 0.015	< 0.016	< 0.015
Naphthalene	mg/kg dry wt	< 0.08	< 0.06	< 0.08	< 0.08	< 0.08
Perylene	mg/kg dry wt	< 0.015	0.197	< 0.015	< 0.016	< 0.015
Phenanthrene	mg/kg dry wt	< 0.015	0.84	< 0.015	< 0.016	< 0.015
Pyrene	mg/kg dry wt	< 0.015	1.56	< 0.015	< 0.016	< 0.015
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	< 20	< 30	< 30	< 20
C10 - C14	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	< 40	< 40	< 40	< 40	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	< 80	< 90	< 90	< 80
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	-	-	-	< 0.3
Ethylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Toluene	mg/kg dry wt	-	-	-	-	< 0.3
m&p-Xylene	mg/kg dry wt	-	-	-	-	< 0.5
o-Xylene	mg/kg dry wt	-	-	-	-	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	-	-	-	< 0.3
Carbon tetrachloride	mg/kg dry wt	-	-	-	-	< 0.3
Chloroethane	mg/kg dry wt	-	-	-	-	< 0.3
Chloromethane	mg/kg dry wt	-	-	-	-	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	-	-	-	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	-	-	-	< 0.3
Dibromomethane	mg/kg dry wt	-	-	-	-	< 0.3
1,3-Dichloropropane	mg/kg dry wt	-	-	-	-	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	-	-	-	-	< 0.5
1,1-Dichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,2-Dichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,1-Dichloroethene	mg/kg dry wt	-	-	-	-	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	-	-	-	-	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	-	-	-	-	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	-	-	-	-	< 5
1,2-Dichloropropane	mg/kg dry wt	-	-	-	-	< 0.3
1,1-Dichloropropene	mg/kg dry wt	-	-	-	-	< 0.3
cis-1,3-Dichloropropene	mg/kg dry wt	-	-	-	-	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	-	-	-	-	< 0.3
Hexachlorobutadiene	mg/kg dry wt	-	-	-	-	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	-	-	-	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	-	-	-	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	-	-	-	-	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	-	-	-	< 0.3
Trichlorofluoromethane	mg/kg dry wt	-	-	-	-	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	-	-	-	-	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	-	-	-	< 0.3
Vinyl chloride	mg/kg dry wt	-	-	-	-	< 0.3

Sample Type: Soil						
Sample Name:		B65 TP02 1.0 16-Jun-2023	B65 TP03 0.1 16-Jun-2023	B65 TP03 0.5 16-Jun-2023	B65 TP03 1.5 16-Jun-2023	B73 TP01 0.1 20-Jun-2023
Lab Number:		3299078.280	3299078.281	3299078.282	3299078.283	3299078.284
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
4-Chlorotoluene	mg/kg dry wt	-	-	-	-	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	-	-	-	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
2-Chlorotoluene	mg/kg dry wt	-	-	-	-	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	-	-	-	-	< 0.3
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
tert-Butylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Isopropylbenzene (Cumene)	mg/kg dry wt	-	-	-	-	< 0.3
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	-	-	-	< 0.3
n-Propylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
sec-Butylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Styrene	mg/kg dry wt	-	-	-	-	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	-	-	-	-	< 0.3
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	-	-	-	< 50
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	-	-	-	< 10
Acetone	mg/kg dry wt	-	-	-	-	< 50
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	-	-	-	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	-	-	-	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	-	-	-	-	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	-	-	-	-	< 0.3
Dibromochloromethane	mg/kg dry wt	-	-	-	-	< 0.3
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	-	-	-	< 0.3
Naphthalene	mg/kg dry wt	-	-	-	-	< 0.3

Sample Name:		B73 TP01 0.5 20-Jun-2023	B74 HA01 0.1 19-Jun-2023	B74 HA01 0.5 19-Jun-2023	B74 HA02 0.1	B74 HA02 0.5
Lab Number:		3299078.285	3299078.287	3299078.288	3299078.290	3299078.291
Individual Tests						
Dry Matter	g/100g as rcvd	60	70	75	74	66
Total Recoverable Beryllium	mg/kg dry wt	0.6	0.6	0.9	0.8	0.9
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	7	6	4	4	5
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	10	10	8	12	14
Total Recoverable Copper	mg/kg dry wt	20	21	17	22	26
Total Recoverable Lead	mg/kg dry wt	20	22	17.9	23	20
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	0.12
Total Recoverable Nickel	mg/kg dry wt	4	6	5	9	7
Total Recoverable Zinc	mg/kg dry wt	36	52	41	73	52
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.4	-	-	-	-
1-Methylnaphthalene	mg/kg dry wt	< 0.017	-	-	-	-
2-Methylnaphthalene	mg/kg dry wt	< 0.017	-	-	-	-

Sample Type: Soil						
	Sample Name:	B73 TP01 0.5 20-Jun-2023	B74 HA01 0.1 19-Jun-2023	B74 HA01 0.5 19-Jun-2023	B74 HA02 0.1	B74 HA02 0.5
	Lab Number:	3299078.285	3299078.287	3299078.288	3299078.290	3299078.291
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Acenaphthylene	mg/kg dry wt	< 0.017	-	-	-	-
Acenaphthene	mg/kg dry wt	< 0.017	-	-	-	-
Anthracene	mg/kg dry wt	< 0.017	-	-	-	-
Benzo[a]anthracene	mg/kg dry wt	< 0.017	-	-	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.017	-	-	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.040	-	-	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.040	-	-	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.017	-	-	-	-
Benzo[e]pyrene	mg/kg dry wt	< 0.017	-	-	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.017	-	-	-	-
Benzo[k]fluoranthene	mg/kg dry wt	< 0.017	-	-	-	-
Chrysene	mg/kg dry wt	< 0.017	-	-	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.017	-	-	-	-
Fluoranthene	mg/kg dry wt	< 0.017	-	-	-	-
Fluorene	mg/kg dry wt	< 0.017	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.017	-	-	-	-
Naphthalene	mg/kg dry wt	< 0.09	-	-	-	-
Perylene	mg/kg dry wt	< 0.017	-	-	-	-
Phenanthrene	mg/kg dry wt	< 0.017	-	-	-	-
Pyrene	mg/kg dry wt	< 0.017	-	-	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	-	-	-	-
C10 - C14	mg/kg dry wt	< 20	-	-	-	-
C15 - C36	mg/kg dry wt	< 40	-	-	-	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	-	-	-	-
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Ethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Toluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
m&p-Xylene	mg/kg dry wt	< 0.6	< 0.5	< 0.5	< 0.5	< 0.6
o-Xylene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Carbon tetrachloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Chloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Chloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dibromomethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,3-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dichloromethane (methylene chloride)	mg/kg dry wt	< 6	< 5	< 5	< 5	< 6
1,2-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Sample Type: Soil						
Sample Name:		B73 TP01 0.5 20-Jun-2023	B74 HA01 0.1 19-Jun-2023	B74 HA01 0.5 19-Jun-2023	B74 HA02 0.1	B74 HA02 0.5
Lab Number:		3299078.285	3299078.287	3299078.288	3299078.290	3299078.291
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Hexachlorobutadiene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Trichlorofluoromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Vinyl chloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
2-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
tert-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
n-Propylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
sec-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Styrene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 60	< 50	< 50	< 50	< 60
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 12	< 10	< 9	< 9	< 11
Acetone	mg/kg dry wt	< 60	< 50	< 50	< 50	< 60
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dibromochloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Sample Name:		B74 TP08 0.1 16-Jun-2023	B74 TP08 0.5 16-Jun-2023	B74 TP08 2.1 16-Jun-2023	B74 TP09 0.1 16-Jun-2023	B74 TP09 0.5 16-Jun-2023
Lab Number:		3299078.292	3299078.293	3299078.297	3299078.298	3299078.299
Individual Tests						
Dry Matter	g/100g as rcvd	71	68	67	71	58

Sample Type: Soil						
Sample Name:		B74 TP08 0.1 16-Jun-2023	B74 TP08 0.5 16-Jun-2023	B74 TP08 2.1 16-Jun-2023	B74 TP09 0.1 16-Jun-2023	B74 TP09 0.5 16-Jun-2023
Lab Number:		3299078.292	3299078.293	3299078.297	3299078.298	3299078.299
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Ethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Toluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
m&p-Xylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.7
o-Xylene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Carbon tetrachloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Chloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Chloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Dibromomethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,3-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,2-Dichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,1-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Dichloromethane (methylene chloride)	mg/kg dry wt	< 5	< 5	< 5	< 5	< 7
1,2-Dichloropropane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,1-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Hexachlorobutadiene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Trichlorofluoromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Vinyl chloride	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
4-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
2-Chlorotoluene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
tert-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4

Sample Type: Soil						
	Sample Name:	B74 TP08 0.1 16-Jun-2023	B74 TP08 0.5 16-Jun-2023	B74 TP08 2.1 16-Jun-2023	B74 TP09 0.1 16-Jun-2023	B74 TP09 0.5 16-Jun-2023
	Lab Number:	3299078.292	3299078.293	3299078.297	3299078.298	3299078.299
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
n-Propylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
sec-Butylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Styrene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 50	< 50	< 50	< 50	< 70
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 9	< 10	< 10	< 10	< 13
Acetone	mg/kg dry wt	< 50	< 50	< 50	< 50	< 70
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Dibromochloromethane	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg dry wt	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4

	Sample Name:	B74 TP09 2.0 16-Jun-2023	DS02 TP01 0.1 19-Jun-2023	DS02 TP01 0.5 19-Jun-2023	DS02 TP02 0.1 19-Jun-2023	DS02 TP03 0.1 20-Jun-2023
	Lab Number:	3299078.302	3299078.303	3299078.304	3299078.306	3299078.309
Individual Tests						
Dry Matter	g/100g as rcvd	61	-	-	-	-
Total Recoverable Beryllium	mg/kg dry wt	-	1.2	1.9	1.1	0.9
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	-	6	4	7	6
Total Recoverable Boron	mg/kg dry wt	-	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	-	0.25	< 0.10	0.21	0.62
Total Recoverable Chromium	mg/kg dry wt	-	15	32	14	13
Total Recoverable Copper	mg/kg dry wt	-	51	70	45	55
Total Recoverable Lead	mg/kg dry wt	-	47	21	25	490
Total Recoverable Mercury	mg/kg dry wt	-	0.27	0.43	0.19	0.11
Total Recoverable Nickel	mg/kg dry wt	-	8	14	8	7
Total Recoverable Zinc	mg/kg dry wt	-	94	83	72	200
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.3	-	-	-	-
Ethylbenzene	mg/kg dry wt	< 0.3	-	-	-	-
Toluene	mg/kg dry wt	< 0.3	-	-	-	-
m&p-Xylene	mg/kg dry wt	< 0.6	-	-	-	-
o-Xylene	mg/kg dry wt	< 0.3	-	-	-	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.3	-	-	-	-
Carbon tetrachloride	mg/kg dry wt	< 0.3	-	-	-	-
Chloroethane	mg/kg dry wt	< 0.3	-	-	-	-
Chloromethane	mg/kg dry wt	< 0.3	-	-	-	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.5	-	-	-	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.3	-	-	-	-
Dibromomethane	mg/kg dry wt	< 0.3	-	-	-	-
1,3-Dichloropropane	mg/kg dry wt	< 0.3	-	-	-	-
Dichlorodifluoromethane	mg/kg dry wt	< 0.5	-	-	-	-
1,1-Dichloroethane	mg/kg dry wt	< 0.3	-	-	-	-

Sample Type: Soil						
Sample Name:		B74 TP09 2.0 16-Jun-2023	DS02 TP01 0.1 19-Jun-2023	DS02 TP01 0.5 19-Jun-2023	DS02 TP02 0.1 19-Jun-2023	DS02 TP03 0.1 20-Jun-2023
Lab Number:		3299078.302	3299078.303	3299078.304	3299078.306	3299078.309
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
1,2-Dichloroethane	mg/kg dry wt	< 0.3	-	-	-	-
1,1-Dichloroethene	mg/kg dry wt	< 0.3	-	-	-	-
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.3	-	-	-	-
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.3	-	-	-	-
Dichloromethane (methylene chloride)	mg/kg dry wt	< 6	-	-	-	-
1,2-Dichloropropane	mg/kg dry wt	< 0.3	-	-	-	-
1,1-Dichloropropene	mg/kg dry wt	< 0.3	-	-	-	-
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.3	-	-	-	-
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.3	-	-	-	-
Hexachlorobutadiene	mg/kg dry wt	< 0.3	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.3	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.3	-	-	-	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.3	-	-	-	-
1,1,1-Trichloroethane	mg/kg dry wt	< 0.3	-	-	-	-
1,1,2-Trichloroethane	mg/kg dry wt	< 0.3	-	-	-	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.3	-	-	-	-
Trichlorofluoromethane	mg/kg dry wt	< 0.3	-	-	-	-
1,2,3-Trichloropropane	mg/kg dry wt	< 0.5	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.3	-	-	-	-
Vinyl chloride	mg/kg dry wt	< 0.3	-	-	-	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	< 0.3	-	-	-	-
1,3-Dichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	-
4-Chlorotoluene	mg/kg dry wt	< 0.3	-	-	-	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.3	-	-	-	-
1,2-Dichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	-
1,4-Dichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	-
2-Chlorotoluene	mg/kg dry wt	< 0.3	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	-
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.3	-	-	-	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.3	-	-	-	-
tert-Butylbenzene	mg/kg dry wt	< 0.3	-	-	-	-
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.3	-	-	-	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.3	-	-	-	-
n-Propylbenzene	mg/kg dry wt	< 0.3	-	-	-	-
sec-Butylbenzene	mg/kg dry wt	< 0.3	-	-	-	-
Styrene	mg/kg dry wt	< 0.3	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.3	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.3	-	-	-	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 60	-	-	-	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 12	-	-	-	-
Acetone	mg/kg dry wt	< 60	-	-	-	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.3	-	-	-	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.3	-	-	-	-
Bromoform (tribromomethane)	mg/kg dry wt	< 0.5	-	-	-	-
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.3	-	-	-	-
Dibromochloromethane	mg/kg dry wt	< 0.3	-	-	-	-

Sample Type: Soil

Sample Name:		B74 TP09 2.0 16-Jun-2023	DS02 TP01 0.1 19-Jun-2023	DS02 TP01 0.5 19-Jun-2023	DS02 TP02 0.1 19-Jun-2023	DS02 TP03 0.1 20-Jun-2023
Lab Number:		3299078.302	3299078.303	3299078.304	3299078.306	3299078.309
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.3	-	-	-	-
Naphthalene	mg/kg dry wt	< 0.3	-	-	-	-
Sample Name:		DS02 TP03 0.5 20-Jun-2023	DS02 TP04 0.1 20-Jun-2023	DS02 TP05 0.1 20-Jun-2023	DS02 TP05 0.5 20-Jun-2023	DS03 TP01 0.1 21-Jun-2023
Lab Number:		3299078.310	3299078.312	3299078.315	3299078.316	3299078.318
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.7	1.0	1.1	0.7
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	5	6	4	5
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.16	0.23	0.48	< 0.10	0.27
Total Recoverable Chromium	mg/kg dry wt	14	8	17	9	10
Total Recoverable Copper	mg/kg dry wt	56	20	50	28	39
Total Recoverable Lead	mg/kg dry wt	71	36	240	19.9	191
Total Recoverable Mercury	mg/kg dry wt	0.10	0.15	0.14	< 0.10	0.10
Total Recoverable Nickel	mg/kg dry wt	11	4	7	6	4
Total Recoverable Zinc	mg/kg dry wt	290	75	109	30	181
Sample Name:		DS03 TP01 0.5 21-Jun-2023	DS03 TP02 0.1 21-Jun-2023	DS03 TP02 0.5 21-Jun-2023	DS03 TP03 0.1 21-Jun-2023	DS03 TP03 0.5 21-Jun-2023
Lab Number:		3299078.319	3299078.321	3299078.322	3299078.324	3299078.325
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	0.6	1.0	0.5	0.5	0.4
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	5	3	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.39	< 0.10	0.37	< 0.10
Total Recoverable Chromium	mg/kg dry wt	9	9	9	9	9
Total Recoverable Copper	mg/kg dry wt	11	23	11	101	9
Total Recoverable Lead	mg/kg dry wt	31	34	18.1	112	22
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.18	0.12	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	3	5	4	4	4
Total Recoverable Zinc	mg/kg dry wt	45	85	40	112	31
Sample Name:		DS03 TP04 0.1 21-Jun-2023	DS03 TP04 0.5 21-Jun-2023	Dup D1 [A]	Dup E1	Dup E3
Lab Number:		3299078.327	3299078.328	3299078.330	3299078.332	3299078.334
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	63	-	-
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.7	0.9	1.1	0.6
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	8	4	10	6	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.27	< 0.10	< 0.10	0.20	< 0.10
Total Recoverable Chromium	mg/kg dry wt	12	10	9	16	10
Total Recoverable Copper	mg/kg dry wt	98	9	13	46	22
Total Recoverable Lead	mg/kg dry wt	47	18.7	19.3	23	21
Total Recoverable Mercury	mg/kg dry wt	0.11	< 0.10	< 0.10	0.19	< 0.10
Total Recoverable Nickel	mg/kg dry wt	4	4	4	8	6
Total Recoverable Zinc	mg/kg dry wt	91	39	48	70	49
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	-	0.6	-	-
1-Methylnaphthalene	mg/kg dry wt	-	-	< 0.016	-	-
2-Methylnaphthalene	mg/kg dry wt	-	-	< 0.016	-	-
Acenaphthylene	mg/kg dry wt	-	-	< 0.016	-	-
Acenaphthene	mg/kg dry wt	-	-	< 0.016	-	-

Sample Type: Soil						
Sample Name:		DS03 TP04 0.1 21-Jun-2023	DS03 TP04 0.5 21-Jun-2023	Dup D1 [A]	Dup E1	Dup E3
Lab Number:		3299078.327	3299078.328	3299078.330	3299078.332	3299078.334
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Anthracene	mg/kg dry wt	-	-	0.027	-	-
Benzo[a]anthracene	mg/kg dry wt	-	-	0.044	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	0.036	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	0.050	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	0.049	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	0.045	-	-
Benzo[e]pyrene	mg/kg dry wt	-	-	0.019	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	0.016	-	-
Benzo[k]fluoranthene	mg/kg dry wt	-	-	0.016	-	-
Chrysene	mg/kg dry wt	-	-	0.036	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	< 0.016	-	-
Fluoranthene	mg/kg dry wt	-	-	0.120	-	-
Fluorene	mg/kg dry wt	-	-	< 0.016	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	0.021	-	-
Naphthalene	mg/kg dry wt	-	-	< 0.08	-	-
Perylene	mg/kg dry wt	-	-	< 0.016	-	-
Phenanthrene	mg/kg dry wt	-	-	0.092	-	-
Pyrene	mg/kg dry wt	-	-	0.098	-	-

Sample Name:		Dup E4	Dup E5	Dup F1	COMP A 0.1	COMP A 0.5
Lab Number:		3299078.335	3299078.336	3299078.338	3299078.339	3299078.340
Individual Tests						
Dry Matter	g/100g as rcvd	-	75	-	71	70
Total Recoverable Beryllium	mg/kg dry wt	0.5	0.5	0.7	0.9	0.7
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	3	3	6	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	0.40	< 0.10
Total Recoverable Chromium	mg/kg dry wt	23	7	9	9	8
Total Recoverable Copper	mg/kg dry wt	14	9	8	42	13
Total Recoverable Lead	mg/kg dry wt	12.6	16.3	17.8	31	21
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	0.13	< 0.10
Total Recoverable Nickel	mg/kg dry wt	13	4	4	4	4
Total Recoverable Zinc	mg/kg dry wt	220	80	36	117	42
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Bentazone	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dicamba	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	-	-	-	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		Dup E4	Dup E5	Dup F1	COMP A 0.1	COMP A 0.5
Lab Number:		3299078.335	3299078.336	3299078.338	3299078.339	3299078.340
Acid Herbicides Screen in Soil by LCMSMS						
Oryzalin	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Picloram	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	-	-	< 0.014	< 0.014
alpha-BHC	mg/kg dry wt	-	-	-	< 0.014	< 0.014
beta-BHC	mg/kg dry wt	-	-	-	< 0.014	< 0.014
delta-BHC	mg/kg dry wt	-	-	-	< 0.014	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	< 0.014	< 0.014
cis-Chlordane	mg/kg dry wt	-	-	-	< 0.014	< 0.014
trans-Chlordane	mg/kg dry wt	-	-	-	< 0.014	< 0.014
2,4'-DDD	mg/kg dry wt	-	-	-	< 0.014	< 0.014
4,4'-DDD	mg/kg dry wt	-	-	-	< 0.014	< 0.014
2,4'-DDE	mg/kg dry wt	-	-	-	< 0.014	< 0.014
4,4'-DDE	mg/kg dry wt	-	-	-	< 0.014	< 0.014
2,4'-DDT	mg/kg dry wt	-	-	-	< 0.014	< 0.014
4,4'-DDT	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Total DDT Isomers	mg/kg dry wt	-	-	-	< 0.09	< 0.09
Dieldrin	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Endosulfan I	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Endosulfan II	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Endosulfan sulphate	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Endrin	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Endrin aldehyde	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Endrin ketone	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Heptachlor	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Methoxychlor	mg/kg dry wt	-	-	-	< 0.014	< 0.014
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Alachlor	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Atrazine	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Atrazine-desethyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Azaconazole	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Benalaxyl	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Bromacil	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Bromopropylate	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Butachlor	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Captan	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Carbaryl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Carbofuran	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Chlorfluazuron	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Chlorothalonil	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Chlorpyrifos	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07

Sample Type: Soil						
	Sample Name:	Dup E4	Dup E5	Dup F1	COMP A 0.1	COMP A 0.5
	Lab Number:	3299078.335	3299078.336	3299078.338	3299078.339	3299078.340
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Chlortoluron	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Cyanazine	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Cyfluthrin	mg/kg dry wt	-	-	-	< 0.09	< 0.09
Cyhalothrin	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Cypermethrin	mg/kg dry wt	-	-	-	< 0.17	< 0.17
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Diazinon	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Dichloran	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	-	-	-	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	-	-	-	< 0.10	< 0.10
Dimethoate	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Diphenylamine	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Diuron	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Fenpropimorph	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Fluazifop-butyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Fluometuron	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Flusilazole	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Fluvalinate	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Hexaconazole	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Hexazinone	mg/kg dry wt	-	-	-	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Linuron	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Malathion	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Metalaxyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Methamidophos	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Molinate	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Myclobutanil	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Naled	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Oxadiazon	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Oxyfluorfen	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Parathion-ethyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Parathion-methyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Pendimethalin	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Permethrin	mg/kg dry wt	-	-	-	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Pirimiphos-methyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Prochloraz	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Procymidone	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Prometryn	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Propachlor	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Propanil	mg/kg dry wt	-	-	-	< 0.2	< 0.2
Propazine	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	-	-	-	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Quizalofop-ethyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Simazine	mg/kg dry wt	-	-	-	< 0.07	< 0.07

Sample Type: Soil						
Sample Name:		Dup E4	Dup E5	Dup F1	COMP A 0.1	COMP A 0.5
Lab Number:		3299078.335	3299078.336	3299078.338	3299078.339	3299078.340
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Simetryn	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Sulfentrazone	mg/kg dry wt	-	-	-	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	-	-	< 0.14	< 0.14
Tebuconazole	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Terbacil	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Terbumeton	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Terbuthylazine	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Terbutryn	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Thiabendazole	mg/kg dry wt	-	-	-	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Tolylfluanid	mg/kg dry wt	-	-	-	< 0.04	< 0.04
Triazophos	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Trifluralin	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Vinclozolin	mg/kg dry wt	-	-	-	< 0.07	< 0.07
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	< 0.4	-	-	-
1-Methylnaphthalene	mg/kg dry wt	-	< 0.013	-	-	-
2-Methylnaphthalene	mg/kg dry wt	-	< 0.013	-	-	-
Acenaphthylene	mg/kg dry wt	-	< 0.013	-	-	-
Acenaphthene	mg/kg dry wt	-	< 0.013	-	-	-
Anthracene	mg/kg dry wt	-	< 0.013	-	-	-
Benzo[a]anthracene	mg/kg dry wt	-	< 0.013	-	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	< 0.013	-	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	< 0.032	-	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	< 0.031	-	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	< 0.013	-	-	-
Benzo[e]pyrene	mg/kg dry wt	-	< 0.013	-	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	-	< 0.013	-	-	-
Benzo[k]fluoranthene	mg/kg dry wt	-	< 0.013	-	-	-
Chrysene	mg/kg dry wt	-	< 0.013	-	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	-	< 0.013	-	-	-
Fluoranthene	mg/kg dry wt	-	< 0.013	-	-	-
Fluorene	mg/kg dry wt	-	< 0.013	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	< 0.013	-	-	-
Naphthalene	mg/kg dry wt	-	< 0.07	-	-	-
Perylene	mg/kg dry wt	-	< 0.013	-	-	-
Phenanthrene	mg/kg dry wt	-	0.014	-	-	-
Pyrene	mg/kg dry wt	-	< 0.013	-	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	< 20	-	-	-
C10 - C14	mg/kg dry wt	-	< 20	-	-	-
C15 - C36	mg/kg dry wt	-	< 40	-	-	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	< 80	-	-	-

Sample Name:		COMP B 0.1	COMP B 0.5	COMP C 0.1	COMP C 0.5	COMP D 0.1
Lab Number:		3299078.341	3299078.342	3299078.343	3299078.344	3299078.345
Individual Tests						
Dry Matter	g/100g as rcvd	70	73	71	67	73
Total Recoverable Beryllium	mg/kg dry wt	0.9	0.6	1.2	0.8	1.2
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	3	6	2	8
Total Recoverable Boron	mg/kg dry wt	25	< 20	340	41	< 20

Sample Type: Soil						
Sample Name:		COMP B 0.1	COMP B 0.5	COMP C 0.1	COMP C 0.5	COMP D 0.1
Lab Number:		3299078.341	3299078.342	3299078.343	3299078.344	3299078.345
8 Heavy metals plus Boron						
Total Recoverable Cadmium	mg/kg dry wt	0.36	< 0.10	0.25	< 0.10	0.51
Total Recoverable Chromium	mg/kg dry wt	9	8	10	8	9
Total Recoverable Copper	mg/kg dry wt	35	14	33	22	50
Total Recoverable Lead	mg/kg dry wt	27	18.4	24	19.4	33
Total Recoverable Mercury	mg/kg dry wt	0.17	< 0.10	0.33	< 0.10	0.18
Total Recoverable Nickel	mg/kg dry wt	7	4	6	5	5
Total Recoverable Zinc	mg/kg dry wt	126	36	82	44	140
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
alpha-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
beta-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
delta-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
cis-Chlordane	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
trans-Chlordane	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
2,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
4,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
2,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
4,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
2,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
4,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Total DDT Isomers	mg/kg dry wt	< 0.09	< 0.08	< 0.09	< 0.09	< 0.08
Dieldrin	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Endosulfan I	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Endosulfan II	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Endosulfan sulphate	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Endrin	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014

Sample Type: Soil						
Sample Name:		COMP B 0.1	COMP B 0.5	COMP C 0.1	COMP C 0.5	COMP D 0.1
Lab Number:		3299078.341	3299078.342	3299078.343	3299078.344	3299078.345
Organochlorine Pesticides Screening in Soil						
Endrin aldehyde	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Endrin ketone	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Heptachlor	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Heptachlor epoxide	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Hexachlorobenzene	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Methoxychlor	mg/kg dry wt	< 0.015	< 0.014	< 0.014	< 0.015	< 0.014
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Bromacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Butachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Captan	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlortoluron	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Cyfluthrin	mg/kg dry wt	< 0.09	< 0.08	< 0.08	< 0.09	< 0.09
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Cypermethrin	mg/kg dry wt	< 0.17	< 0.16	< 0.16	< 0.17	< 0.17
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Diazinon	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.10	< 0.09	< 0.10	< 0.10	< 0.10
Dimethoate	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Diphenylamine	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Diuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Malathion	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07

Sample Type: Soil						
Sample Name:		COMP B 0.1	COMP B 0.5	COMP C 0.1	COMP C 0.5	COMP D 0.1
Lab Number:		3299078.341	3299078.342	3299078.343	3299078.344	3299078.345
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Molinate	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Naled	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Prometryn	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Simazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Simetryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.14	< 0.13	< 0.14	< 0.14	< 0.14
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07

Sample Name:		COMP D 0.5	COMP E 0.1	COMP E 0.5	COMP F 0.1	COMP F 0.5
Lab Number:		3299078.346	3299078.347	3299078.348	3299078.349	3299078.350
Individual Tests						
Dry Matter	g/100g as rcvd	72	74	76	69	75
Total Recoverable Beryllium	mg/kg dry wt	0.8	1.1	0.7	0.9	1.0
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	6	3	6	5
Total Recoverable Boron	mg/kg dry wt	< 20	70	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.32	< 0.10	0.29	0.16
Total Recoverable Chromium	mg/kg dry wt	9	10	8	9	9
Total Recoverable Copper	mg/kg dry wt	13	36	11	34	24
Total Recoverable Lead	mg/kg dry wt	21	83	17.1	74	33
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.12	< 0.10	0.18	0.13

Sample Type: Soil						
	Sample Name:	COMP D 0.5	COMP E 0.1	COMP E 0.5	COMP F 0.1	COMP F 0.5
	Lab Number:	3299078.346	3299078.347	3299078.348	3299078.349	3299078.350
8 Heavy metals plus Boron						
Total Recoverable Nickel	mg/kg dry wt	3	8	4	5	5
Total Recoverable Zinc	mg/kg dry wt	38	97	33	118	87
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.4	< 0.4	< 0.4
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
alpha-BHC	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
beta-BHC	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
delta-BHC	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
cis-Chlordane	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
trans-Chlordane	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
2,4'-DDD	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
4,4'-DDD	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
2,4'-DDE	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
4,4'-DDE	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
2,4'-DDT	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
4,4'-DDT	mg/kg dry wt	< 0.014	0.099	< 0.013	< 0.015	< 0.014
Total DDT Isomers	mg/kg dry wt	< 0.08	0.10	< 0.08	< 0.09	< 0.08
Dieldrin	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Endosulfan I	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Endosulfan II	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Endosulfan sulphate	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Endrin	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Endrin aldehyde	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Endrin ketone	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Heptachlor	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Heptachlor epoxide	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Hexachlorobenzene	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014

Sample Type: Soil						
Sample Name:		COMP D 0.5	COMP E 0.1	COMP E 0.5	COMP F 0.1	COMP F 0.5
Lab Number:		3299078.346	3299078.347	3299078.348	3299078.349	3299078.350
Organochlorine Pesticides Screening in Soil						
Methoxychlor	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.015	< 0.014
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Bromacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Butachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Captan	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlortoluron	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Cyfluthrin	mg/kg dry wt	< 0.08	< 0.08	< 0.08	< 0.09	< 0.08
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Cypermethrin	mg/kg dry wt	< 0.16	< 0.16	< 0.16	< 0.17	< 0.16
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Diazinon	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.10	< 0.10	< 0.09	< 0.10	< 0.09
Dimethoate	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Diphenylamine	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Diuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Malathion	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Molinate	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07

Sample Type: Soil

Sample Name:		COMP D 0.5	COMP E 0.1	COMP E 0.5	COMP F 0.1	COMP F 0.5
Lab Number:		3299078.346	3299078.347	3299078.348	3299078.349	3299078.350
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Naled	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Prometryn	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Simazine	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Simetryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.14	< 0.13	< 0.13	< 0.14	< 0.13
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbacil	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07

Sample Name:		COMP G 0.1	COMP G 0.5	COMP H 0.1	COMP H 0.5	B65 TP02 2.0 23-Jun-2023
Lab Number:		3299078.351	3299078.352	3299078.353	3299078.354	3299078.373
Individual Tests						
Dry Matter	g/100g as rcvd	77	71	74	69	50
Total Recoverable Beryllium	mg/kg dry wt	1.5	1.2	1.4	0.9	-
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	8	5	8	5	-
Total Recoverable Boron	mg/kg dry wt	23	< 20	360	< 20	-
Total Recoverable Cadmium	mg/kg dry wt	0.47	0.23	0.36	< 0.10	-
Total Recoverable Chromium	mg/kg dry wt	11	9	11	9	-
Total Recoverable Copper	mg/kg dry wt	64	28	42	16	-
Total Recoverable Lead	mg/kg dry wt	56	23	57	23	-
Total Recoverable Mercury	mg/kg dry wt	0.51	0.15	0.30	< 0.10	-
Total Recoverable Nickel	mg/kg dry wt	10	6	19	4	-
Total Recoverable Zinc	mg/kg dry wt	157	70	123	35	-
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-

Sample Type: Soil						
Sample Name:		COMP G 0.1	COMP G 0.5	COMP H 0.1	COMP H 0.5	B65 TP02 2.0 23-Jun-2023
Lab Number:		3299078.351	3299078.352	3299078.353	3299078.354	3299078.373
Acid Herbicides Screen in Soil by LCMSMS						
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	-
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	-
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
BTEX in Soil by Headspace GC-MS						
Benzene	mg/kg dry wt	-	-	-	-	< 0.17
Toluene	mg/kg dry wt	-	-	-	-	< 0.17
Ethylbenzene	mg/kg dry wt	-	-	-	-	< 0.17
m&p-Xylene	mg/kg dry wt	-	-	-	-	< 0.4
o-Xylene	mg/kg dry wt	-	-	-	-	< 0.17
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
alpha-BHC	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
beta-BHC	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
delta-BHC	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
cis-Chlordane	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
trans-Chlordane	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
2,4'-DDD	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
4,4'-DDD	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
2,4'-DDE	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
4,4'-DDE	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
2,4'-DDT	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
4,4'-DDT	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Total DDT Isomers	mg/kg dry wt	< 0.08	< 0.09	< 0.08	< 0.09	-
Dieldrin	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Endosulfan I	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Endosulfan II	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Endosulfan sulphate	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Endrin	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Endrin aldehyde	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Endrin ketone	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-

Sample Type: Soil

Sample Name:		COMP G 0.1	COMP G 0.5	COMP H 0.1	COMP H 0.5	B65 TP02 2.0 23-Jun-2023
Lab Number:		3299078.351	3299078.352	3299078.353	3299078.354	3299078.373
Organochlorine Pesticides Screening in Soil						
Heptachlor	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Heptachlor epoxide	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Hexachlorobenzene	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Methoxychlor	mg/kg dry wt	< 0.013	< 0.014	< 0.013	< 0.015	-
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	-
Atrazine	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Atrazine-desethyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Atrazine-desisopropyl	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Azaconazole	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Azinphos-methyl	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Benalaxyl	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Bitertanol	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Bromacil	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Bromopropylate	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Butachlor	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Captan	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Carbaryl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Carbofuran	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Chlorfluazuron	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Chlorothalonil	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Chlorpyrifos	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Chlorpyrifos-methyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Chlortoluron	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Cyanazine	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Cyfluthrin	mg/kg dry wt	< 0.08	< 0.09	< 0.08	< 0.09	-
Cyhalothrin	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Cypermethrin	mg/kg dry wt	< 0.15	< 0.17	< 0.16	< 0.17	-
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Diazinon	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Dichlofluanid	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	-
Difenoconazole	mg/kg dry wt	< 0.09	< 0.10	< 0.09	< 0.10	-
Dimethoate	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Diphenylamine	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Diuron	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Fenpropimorph	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Fluazifop-butyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Fluometuron	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Flusilazole	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	-
Furalaxyl	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Haloxyfop-methyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Hexaconazole	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Hexazinone	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.3	< 0.4	< 0.4	< 0.4	-
Kresoxim-methyl	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Linuron	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Malathion	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Metalaxyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Methamidophos	mg/kg dry wt	< 0.3	< 0.4	< 0.4	< 0.4	-

Sample Type: Soil						
	Sample Name:	COMP G 0.1	COMP G 0.5	COMP H 0.1	COMP H 0.5	B65 TP02 2.0 23-Jun-2023
	Lab Number:	3299078.351	3299078.352	3299078.353	3299078.354	3299078.373
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	-
Metribuzin	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Molinate	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Myclobutanil	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Naled	mg/kg dry wt	< 0.3	< 0.4	< 0.4	< 0.4	-
Norflurazon	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Oxadiazon	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Oxyfluorfen	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Paclobutrazol	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Parathion-ethyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Parathion-methyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Pendimethalin	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	-
Pirimicarb	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Pirimiphos-methyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Prochloraz	mg/kg dry wt	< 0.3	< 0.4	< 0.4	< 0.4	-
Procymidone	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Prometryn	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Propachlor	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	-
Propazine	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	-
Pyriproxyfen	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Quizalofop-ethyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Simazine	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Simetryn	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Sulfentrazone	mg/kg dry wt	< 0.3	< 0.4	< 0.4	< 0.4	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.12	< 0.14	< 0.13	< 0.14	-
Tebuconazole	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Terbacil	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Terbumeton	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Terbuthylazine	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Terbuthylazine-desethyl	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Terbutryn	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Thiabendazole	mg/kg dry wt	< 0.3	< 0.4	< 0.4	< 0.4	-
Thiobencarb	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Tolylfluanid	mg/kg dry wt	< 0.03	< 0.04	< 0.04	< 0.04	-
Triazophos	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Trifluralin	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Vinclozolin	mg/kg dry wt	< 0.06	< 0.07	< 0.07	< 0.07	-
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	-	-	-	-	< 0.5
1-Methylnaphthalene	mg/kg dry wt	-	-	-	-	< 0.02
2-Methylnaphthalene	mg/kg dry wt	-	-	-	-	< 0.02
Acenaphthylene	mg/kg dry wt	-	-	-	-	< 0.02
Acenaphthene	mg/kg dry wt	-	-	-	-	< 0.02
Anthracene	mg/kg dry wt	-	-	-	-	< 0.02
Benzo[a]anthracene	mg/kg dry wt	-	-	-	-	< 0.02
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	-	-	< 0.02
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	-	-	< 0.048
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	-	-	< 0.048
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	-	-	< 0.02

Sample Type: Soil

Sample Name:		COMP G 0.1	COMP G 0.5	COMP H 0.1	COMP H 0.5	B65 TP02 2.0 23-Jun-2023
Lab Number:		3299078.351	3299078.352	3299078.353	3299078.354	3299078.373
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Benzo[e]pyrene	mg/kg dry wt	-	-	-	-	< 0.02
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	-	-	< 0.02
Benzo[k]fluoranthene	mg/kg dry wt	-	-	-	-	< 0.02
Chrysene	mg/kg dry wt	-	-	-	-	< 0.02
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	-	-	< 0.02
Fluoranthene	mg/kg dry wt	-	-	-	-	< 0.02
Fluorene	mg/kg dry wt	-	-	-	-	< 0.02
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	-	-	< 0.02
Naphthalene	mg/kg dry wt	-	-	-	-	< 0.10
Perylene	mg/kg dry wt	-	-	-	-	0.04
Phenanthrene	mg/kg dry wt	-	-	-	-	< 0.02
Pyrene	mg/kg dry wt	-	-	-	-	< 0.02
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	-	-	-	-	< 30
C10 - C14	mg/kg dry wt	-	-	-	-	< 30
C15 - C36	mg/kg dry wt	-	-	-	-	< 50
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	-	-	-	< 100

Sample Name:		SB 01 TP 01 0.1 29-Jun-2023	SB 01 TP 01 0.5 29-Jun-2023	SB 02 TP 01 0.1 29-Jun-2023	SB 05 TP 01 0.1 29-Jun-2023	SB 05 TP 01 0.5 29-Jun-2023
Lab Number:		3299078.384	3299078.385	3299078.387	3299078.391	3299078.392
Individual Tests						
Dry Matter	g/100g as rcvd	76	-	80	48	48
Total Recoverable Beryllium	mg/kg dry wt	0.5	0.6	0.7	1.7	1.6
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	2	6	5	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	11	8	9	21	16
Total Recoverable Copper	mg/kg dry wt	13	11	39	59	49
Total Recoverable Lead	mg/kg dry wt	17.5	16.4	27	25	25
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	0.16	< 0.10
Total Recoverable Nickel	mg/kg dry wt	3	4	6	9	9
Total Recoverable Zinc	mg/kg dry wt	42	35	68	78	78
Polychlorinated Biphenyls Screening in Soil*						
PCB-18	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-28	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-31	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-44	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-49	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-52	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-60	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-77	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-81	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-86	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-101	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-105	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-110	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-114	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-118	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-121	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-123	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-126	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-128	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-138	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Sample Type: Soil

	Sample Name:	SB 01 TP 01 0.1 29-Jun-2023	SB 01 TP 01 0.5 29-Jun-2023	SB 02 TP 01 0.1 29-Jun-2023	SB 05 TP 01 0.1 29-Jun-2023	SB 05 TP 01 0.5 29-Jun-2023
	Lab Number:	3299078.384	3299078.385	3299078.387	3299078.391	3299078.392
Polychlorinated Biphenyls Screening in Soil*						
PCB-141	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-149	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-151	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-153	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-156	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-157	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-159	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-167	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-169	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-170	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-180	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-189	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-194	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-206	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB-209	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Mono-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.000003	< 0.000003	< 0.000003	< 0.000003	< 0.000003
Non-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
Total PCB (Sum of 35 congeners)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 20	-	< 20	< 30	< 30
C10 - C14	mg/kg dry wt	< 20	-	< 20	< 30	< 30
C15 - C36	mg/kg dry wt	< 40	-	< 40	< 50	< 60
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 80	-	< 80	< 110	< 110

	Sample Name:	SB 06 TP 01 0.1 29-Jun-2023	SB 07 TP 01 0.1 29-Jun-2023	SB 07 TP 01 0.5 29-Jun-2023
	Lab Number:	3299078.394	3299078.395	3299078.396
Individual Tests				
Dry Matter	g/100g as rcvd	95	89	94
Total Recoverable Beryllium	mg/kg dry wt	0.7	0.6	0.6
8 Heavy metals plus Boron				
Total Recoverable Arsenic	mg/kg dry wt	5	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	20	18	15
Total Recoverable Copper	mg/kg dry wt	48	73	21
Total Recoverable Lead	mg/kg dry wt	10.7	25	11.7
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	11	11	8
Total Recoverable Zinc	mg/kg dry wt	63	66	56
Polychlorinated Biphenyls Screening in Soil*				
PCB-18	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-28	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-31	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-44	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-49	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-52	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-60	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-77	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-81	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-86	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-101	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-105	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-110	mg/kg dry wt	< 0.010	< 0.010	< 0.010

Sample Type: Soil

Sample Name:		SB 06 TP 01 0.1 29-Jun-2023	SB 07 TP 01 0.1 29-Jun-2023	SB 07 TP 01 0.5 29-Jun-2023
Lab Number:		3299078.394	3299078.395	3299078.396
Polychlorinated Biphenyls Screening in Soil*				
PCB-114	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-118	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-121	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-123	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-126	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-128	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-138	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-141	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-149	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-151	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-153	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-156	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-157	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-159	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-167	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-169	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-170	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-180	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-189	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-194	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-206	mg/kg dry wt	< 0.010	< 0.010	< 0.010
PCB-209	mg/kg dry wt	< 0.010	< 0.010	< 0.010
Mono-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.000003	< 0.000003	< 0.000003
Non-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.0014	< 0.0014	< 0.0014
Total PCB (Sum of 35 congeners)	mg/kg dry wt	< 0.4	< 0.4	< 0.4
Total Petroleum Hydrocarbons in Soil				
C7 - C9	mg/kg dry wt	< 20	< 20	< 20
C10 - C14	mg/kg dry wt	< 20	< 20	< 20
C15 - C36	mg/kg dry wt	< 40	< 40	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 80	< 80	< 80

Sample Type: Sediment

Sample Name:		WWTP DIS-SED 0.10 13-Jun-2023	WWTP SEEPAGE-SED 0.10 13-Jun-2023	STR SED 01 0.3 23-Jun-2023	STR SED 01 0.05 23-Jun-2023	STR SED 02 0.3 23-Jun-2023
Lab Number:		3299078.177	3299078.178	3299078.355	3299078.356	3299078.357
Individual Tests						
Dry Matter	g/100g as rcvd	77	48	49	53	32
Total Recoverable Beryllium	mg/kg dry wt	0.6	1.2	1.0	0.9	1.3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
pH	pH Units	5.7	6.2	5.6	5.5	5.6
Total Organic Carbon*	g/100g dry wt	3.0	1.45	2.2	1.38	6.3
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg						
Total Recoverable Arsenic	mg/kg dry wt	4	5	5	4	7
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	0.12	0.11	0.41
Total Recoverable Chromium	mg/kg dry wt	8	8	9	9	12
Total Recoverable Copper	mg/kg dry wt	18	21	16	16	27
Total Recoverable Lead	mg/kg dry wt	15.1	17.7	30	37	27
Total Recoverable Mercury	mg/kg dry wt	< 0.10	0.31	< 0.10	< 0.10	0.11
Total Recoverable Nickel	mg/kg dry wt	5	4	4	4	7
Total Recoverable Zinc	mg/kg dry wt	56	47	88	77	126
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2

Sample Type: Sediment						
Sample Name:		WWTP DIS-SED 0.10 13-Jun-2023	WWTP SEEPAGE-SED 0.10 13-Jun-2023	STR SED 01 0.3 23-Jun-2023	STR SED 01 0.05 23-Jun-2023	STR SED 02 0.3 23-Jun-2023
Lab Number:		3299078.177	3299078.178	3299078.355	3299078.356	3299078.357
Acid Herbicides Screen in Soil by LCMSMS						
Bromoxynil	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	-	-	< 2	< 2	< 2
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	-	-	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Trace in Soil						
Aldrin	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
alpha-BHC	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
beta-BHC	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
delta-BHC	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
gamma-BHC (Lindane)	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
cis-Chlordane	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
trans-Chlordane	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
2,4'-DDD	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
4,4'-DDD	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
2,4'-DDE	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
4,4'-DDE	mg/kg dry wt	-	-	0.0010	0.0056	0.0065
2,4'-DDT	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
4,4'-DDT	mg/kg dry wt	-	-	< 0.0010	< 0.0010	0.0023
Total DDT Isomers	mg/kg dry wt	-	-	< 0.006	0.007	0.009
Dieldrin	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Endosulfan I	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Endosulfan II	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Endosulfan sulphate	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Endrin	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Endrin aldehyde	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Endrin ketone	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Heptachlor	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Heptachlor epoxide	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Hexachlorobenzene	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010
Methoxychlor	mg/kg dry wt	-	-	< 0.0010	< 0.0010	< 0.0010

Sample Type: Sediment						
Sample Name:		WWTP DIS-SED 0.10 13-Jun-2023	WWTP SEEPAGE-SED 0.10 13-Jun-2023	STR SED 01 0.3 23-Jun-2023	STR SED 01 0.05 23-Jun-2023	STR SED 02 0.3 23-Jun-2023
Lab Number:		3299078.177	3299078.178	3299078.355	3299078.356	3299078.357
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Acetochlor	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Alachlor	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Atrazine	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Atrazine-desethyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Atrazine-desisopropyl	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Azaconazole	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Azinphos-methyl	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Benalaxyl	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Bitertanol	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Bromacil	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Bromopropylate	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Butachlor	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Captan	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Carbaryl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Carbofuran	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Chlorfluazuron	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Chlorothalonil	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Chlorpyrifos	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Chlorpyrifos-methyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Chlortoluron	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Cyanazine	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Cyfluthrin	mg/kg dry wt	-	-	< 0.015	< 0.014	< 0.03
Cyhalothrin	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Cypermethrin	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.05
Cyproconazole	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Diazinon	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Dichlofluanid	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Dichloran	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.05
Dichlorvos	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Difenoconazole	mg/kg dry wt	-	-	< 0.017	< 0.016	< 0.03
Dimethoate	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Diphenylamine	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Diuron	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Fenpropimorph	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Fluazifop-butyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Fluometuron	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Flusilazole	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Fluvalinate	mg/kg dry wt	-	-	< 0.009	< 0.008	< 0.013
Furalaxyl	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Haloxyfop-methyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Hexaconazole	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Hexazinone	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	-	< 0.06	< 0.06	< 0.10
Kresoxim-methyl	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Linuron	mg/kg dry wt	-	-	< 0.12	< 0.11	< 0.19
Malathion	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Metalaxyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Methamidophos	mg/kg dry wt	-	-	< 0.06	< 0.06	< 0.10
Metolachlor	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Metribuzin	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Molinate	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Myclobutanil	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019

Sample Type: Sediment						
Sample Name:		WWTP DIS-SED 0.10 13-Jun-2023	WWTP SEEPAGE-SED 0.10 13-Jun-2023	STR SED 01 0.3 23-Jun-2023	STR SED 01 0.05 23-Jun-2023	STR SED 02 0.3 23-Jun-2023
Lab Number:		3299078.177	3299078.178	3299078.355	3299078.356	3299078.357
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Naled	mg/kg dry wt	-	-	< 0.06	< 0.06	< 0.10
Norflurazon	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Oxadiazon	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Oxyfluorfen	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Paclobutrazol	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Parathion-ethyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Parathion-methyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Penconazole	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Pendimethalin	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Permethrin	mg/kg dry wt	-	-	< 0.004	< 0.004	< 0.006
Pirimicarb	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Pirimiphos-methyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Prochloraz	mg/kg dry wt	-	-	< 0.06	< 0.06	< 0.10
Procymidone	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Prometryn	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Propachlor	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Propanil	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Propazine	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Propiconazole	mg/kg dry wt	-	-	< 0.009	< 0.008	< 0.013
Pyriproxyfen	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Quizalofop-ethyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Simazine	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Simetryn	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Sulfentrazone	mg/kg dry wt	-	-	< 0.06	< 0.06	< 0.10
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	-	< 0.12	< 0.11	< 0.19
Tebuconazole	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Terbacil	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Terbumeton	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Terbuthylazine	mg/kg dry wt	-	-	< 0.006	< 0.006	< 0.010
Terbuthylazine-desethyl	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Terbutryn	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Thiabendazole	mg/kg dry wt	-	-	< 0.06	< 0.06	< 0.10
Thiobencarb	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Tolylfluanid	mg/kg dry wt	-	-	< 0.03	< 0.03	< 0.04
Triazophos	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Trifluralin	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Vinclozolin	mg/kg dry wt	-	-	< 0.012	< 0.011	< 0.019
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.4	< 0.7	< 0.6	< 0.6	< 1.0
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 4	< 7	< 6	< 6	< 10
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
alpha-BHC	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0

Sample Type: Sediment						
Sample Name:		WWTP DIS-SED 0.10 13-Jun-2023	WWTP SEEPAGE-SED 0.10 13-Jun-2023	STR SED 01 0.3 23-Jun-2023	STR SED 01 0.05 23-Jun-2023	STR SED 02 0.3 23-Jun-2023
Lab Number:		3299078.177	3299078.178	3299078.355	3299078.356	3299078.357
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
beta-BHC	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
delta-BHC	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Dieldrin	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Endosulfan I	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Endrin	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
Endrin ketone	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Heptachlor	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Hexachlorobenzene	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5	0.6	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	0.7	< 0.6	< 0.6	< 1.0
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.5	0.8	< 0.6	< 0.6	< 1.0
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	0.7	< 0.6	< 0.6	< 1.0
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.7
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Fluoranthene	mg/kg dry wt	< 0.5	0.9	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.5	0.7	< 0.6	< 0.6	< 1.0
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 0.5	0.9	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	< 1.5	< 1.5	< 1.4	< 2.2
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	< 1.5	< 1.4	< 1.4	< 2.2
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5	< 7	< 6	< 6	< 10
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
2,4,5-Trichlorophenol	mg/kg dry wt	< 4	< 7	< 6	< 6	< 10
2,4,6-Trichlorophenol	mg/kg dry wt	< 4	< 7	< 6	< 6	< 10
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9

Sample Type: Sediment						
Sample Name:		WWTP DIS-SED 0.10 13-Jun-2023	WWTP SEEPAGE-SED 0.10 13-Jun-2023	STR SED 01 0.3 23-Jun-2023	STR SED 01 0.05 23-Jun-2023	STR SED 02 0.3 23-Jun-2023
Lab Number:		3299078.177	3299078.178	3299078.355	3299078.356	3299078.357
Plasticisers in SVOC Soil Samples by GC-MS						
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Di-n-octylphthalate	mg/kg dry wt	< 1.0	< 1.3	< 1.2	< 1.2	< 1.9
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
1,3-Dichlorobenzene	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
1,4-Dichlorobenzene	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
Hexachlorobutadiene	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
Hexachloroethane	mg/kg dry wt	< 0.8	< 1.3	< 1.2	< 1.2	< 1.9
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 10
Carbazole	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Dibenzofuran	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Isophorone	mg/kg dry wt	< 0.5	< 0.7	< 0.6	< 0.6	< 1.0
Total Petroleum Hydrocarbons in Solids						
C7 - C9	mg/kg dry wt	-	-	< 30	< 30	< 50
C10 - C14	mg/kg dry wt	-	-	< 30	< 30	< 40
C15 - C36	mg/kg dry wt	-	-	< 50	< 50	< 80
Total hydrocarbons (C7 - C36)	mg/kg dry wt	-	-	< 110	< 100	< 150
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Ethylbenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Toluene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
m&p-Xylene	mg/kg dry wt	< 0.08	< 0.08	< 0.08	< 0.08	< 0.3
o-Xylene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Carbon tetrachloride	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Chloroethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Chloromethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.08	< 0.08	< 0.08	< 0.08	< 0.3
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Dibromomethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,3-Dichloropropane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Dichlorodifluoromethane	mg/kg dry wt	< 0.08	< 0.08	< 0.08	< 0.08	< 0.3
1,1-Dichloroethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2-Dichloroethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,1-Dichloroethene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Dichloromethane (methylene chloride)	mg/kg dry wt	< 0.8	< 0.8	< 0.8	< 0.8	< 3
1,2-Dichloropropane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,1-Dichloropropene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Hexachlorobutadiene	mg/kg dry wt	< 0.08	< 0.08	< 0.08	< 0.08	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11

Sample Type: Sediment

Sample Name:		WWTP DIS-SED 0.10 13-Jun-2023	WWTP SEEPAGE-SED 0.10 13-Jun-2023	STR SED 01 0.3 23-Jun-2023	STR SED 01 0.05 23-Jun-2023	STR SED 02 0.3 23-Jun-2023
Lab Number:		3299078.177	3299078.178	3299078.355	3299078.356	3299078.357
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,1,1-Trichloroethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,1,2-Trichloroethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Trichlorofluoromethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2,3-Trichloropropane	mg/kg dry wt	< 0.08	< 0.08	< 0.08	< 0.08	< 0.3
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Vinyl chloride	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Halogenated Aromatics in VOC Soils by Headspace GC-MS*						
Bromobenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,3-Dichlorobenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
4-Chlorotoluene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2-Dichlorobenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2-Dichloropropane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,4-Dichlorobenzene*	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
2-Chlorotoluene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
tert-Butylbenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
n-Propylbenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
sec-Butylbenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Styrene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 8	< 8	< 8	< 8	< 30
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 1.5	< 1.6	< 1.6	< 1.5	< 5
Acetone	mg/kg dry wt	< 8	< 8	< 8	< 8	< 30
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Bromoform (tribromomethane)	mg/kg dry wt	< 0.08	< 0.08	< 0.08	< 0.08	< 0.3
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Dibromochloromethane	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.11

Sample Name:		STR SED 02 0.05 23-Jun-2023	STR SED 03 0.3 23-Jun-2023	STR SED 03 0.05 23-Jun-2023	STR SED 04 0.3 23-Jun-2023	STR SED 04 0.05 23-Jun-2023
Lab Number:		3299078.358	3299078.359	3299078.360	3299078.361	3299078.362
Individual Tests						
Dry Matter	g/100g as rcvd	32	38	45	55	27
Total Recoverable Beryllium	mg/kg dry wt	1.3	1.3	1.2	1.0	1.4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
pH	pH Units	5.8	5.6	5.9	7.2	5.9

Sample Type: Sediment						
	Sample Name:	STR SED 02 0.05 23-Jun-2023	STR SED 03 0.3 23-Jun-2023	STR SED 03 0.05 23-Jun-2023	STR SED 04 0.3 23-Jun-2023	STR SED 04 0.05 23-Jun-2023
	Lab Number:	3299078.358	3299078.359	3299078.360	3299078.361	3299078.362
Individual Tests						
Total Organic Carbon*	g/100g dry wt	5.1	2.5	2.3	1.00	5.9
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg						
Total Recoverable Arsenic	mg/kg dry wt	6	5	5	< 2	4
Total Recoverable Cadmium	mg/kg dry wt	0.41	0.30	0.24	< 0.10	0.19
Total Recoverable Chromium	mg/kg dry wt	11	11	10	9	10
Total Recoverable Copper	mg/kg dry wt	28	31	28	10	18
Total Recoverable Lead	mg/kg dry wt	23	130	42	15.4	15.0
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	6	7	6	4	4
Total Recoverable Zinc	mg/kg dry wt	127	115	111	52	75
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 2	< 2	< 0.4	< 2	< 2
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Trace in Soil						
Aldrin	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
alpha-BHC	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
beta-BHC	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
delta-BHC	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
gamma-BHC (Lindane)	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
cis-Chlordane	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
trans-Chlordane	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
2,4'-DDD	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
4,4'-DDD	mg/kg dry wt	< 0.0013	0.0063	0.0088	< 0.0010	< 0.003
2,4'-DDE	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
4,4'-DDE	mg/kg dry wt	0.0091	0.0172	0.022	< 0.0010	< 0.003
2,4'-DDT	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
4,4'-DDT	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Total DDT Isomers	mg/kg dry wt	0.010	0.024	0.031	< 0.006	< 0.016
Dieldrin	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003

Sample Type: Sediment						
	Sample Name:	STR SED 02 0.05 23-Jun-2023	STR SED 03 0.3 23-Jun-2023	STR SED 03 0.05 23-Jun-2023	STR SED 04 0.3 23-Jun-2023	STR SED 04 0.05 23-Jun-2023
	Lab Number:	3299078.358	3299078.359	3299078.360	3299078.361	3299078.362
Organochlorine Pesticides Trace in Soil						
Endosulfan I	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Endosulfan II	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Endosulfan sulphate	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Endrin	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Endrin aldehyde	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Endrin ketone	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Heptachlor	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Heptachlor epoxide	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Hexachlorobenzene	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Methoxychlor	mg/kg dry wt	< 0.0013	< 0.0011	< 0.0010	< 0.0010	< 0.003
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Alachlor	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Atrazine	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Atrazine-desethyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Atrazine-desisopropyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Azaconazole	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Azinphos-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Benalaxyl	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Bitertanol	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Bromacil	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Bromopropylate	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Butachlor	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Captan	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Carbaryl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Carbofuran	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Chlorfluazuron	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Chlorothalonil	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Chlorpyrifos	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Chlorpyrifos-methyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Chlortoluron	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Cyanazine	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Cyfluthrin	mg/kg dry wt	< 0.03	< 0.019	< 0.016	< 0.013	< 0.03
Cyhalothrin	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Cypermethrin	mg/kg dry wt	< 0.05	< 0.04	< 0.04	< 0.03	< 0.06
Cyproconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Diazinon	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Dichlofluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Dichloran	mg/kg dry wt	< 0.05	< 0.04	< 0.04	< 0.03	< 0.06
Dichlorvos	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Difenoconazole	mg/kg dry wt	< 0.03	< 0.03	< 0.018	< 0.015	< 0.04
Dimethoate	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Diphenylamine	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Diuron	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Fenpropimorph	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Fluazifop-butyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Fluometuron	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Flusilazole	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Fluvalinate	mg/kg dry wt	< 0.013	< 0.011	< 0.009	< 0.008	< 0.016
Furalaxyl	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Haloxyfop-methyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Hexaconazole	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Hexazinone	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011

Sample Type: Sediment						
	Sample Name:	STR SED 02 0.05 23-Jun-2023	STR SED 03 0.3 23-Jun-2023	STR SED 03 0.05 23-Jun-2023	STR SED 04 0.3 23-Jun-2023	STR SED 04 0.05 23-Jun-2023
	Lab Number:	3299078.358	3299078.359	3299078.360	3299078.361	3299078.362
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.10	< 0.08	< 0.07	< 0.06	< 0.11
Kresoxim-methyl	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Linuron	mg/kg dry wt	< 0.19	< 0.16	< 0.13	< 0.11	< 0.3
Malathion	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Metalaxyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Methamidophos	mg/kg dry wt	< 0.10	< 0.08	< 0.07	< 0.06	< 0.11
Metolachlor	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Metribuzin	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Molinate	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Myclobutanil	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Naled	mg/kg dry wt	< 0.10	< 0.08	< 0.07	< 0.06	< 0.11
Norflurazon	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Oxadiazon	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Oxyfluorfen	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Paclobutrazol	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Parathion-ethyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Parathion-methyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Penconazole	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Pendimethalin	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Permethrin	mg/kg dry wt	< 0.006	< 0.005	< 0.004	< 0.003	< 0.007
Pirimicarb	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Pirimiphos-methyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Prochloraz	mg/kg dry wt	< 0.10	< 0.08	< 0.07	< 0.06	< 0.11
Procymidone	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Prometryn	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Propachlor	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Propanil	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Propazine	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Propiconazole	mg/kg dry wt	< 0.013	< 0.011	< 0.009	< 0.008	< 0.016
Pyriproxyfen	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Quizalofop-ethyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Simazine	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Simetryn	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Sulfentrazone	mg/kg dry wt	< 0.10	< 0.08	< 0.07	< 0.06	< 0.11
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.19	< 0.16	< 0.13	< 0.11	< 0.3
Tebuconazole	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Terbacil	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Terbumeton	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Terbuthylazine	mg/kg dry wt	< 0.010	< 0.008	< 0.007	< 0.006	< 0.011
Terbuthylazine-desethyl	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Terbutryn	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Thiabendazole	mg/kg dry wt	< 0.10	< 0.08	< 0.07	< 0.06	< 0.11
Thiobencarb	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.03	< 0.03	< 0.05
Triazophos	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Trifluralin	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Vinclozolin	mg/kg dry wt	< 0.019	< 0.016	< 0.013	< 0.011	< 0.03
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Bis(2-chloroethyl)ether	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
4-Bromophenyl phenyl ether	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1

Sample Type: Sediment						
Sample Name:		STR SED 02 0.05 23-Jun-2023	STR SED 03 0.3 23-Jun-2023	STR SED 03 0.05 23-Jun-2023	STR SED 04 0.3 23-Jun-2023	STR SED 04 0.05 23-Jun-2023
Lab Number:		3299078.358	3299078.359	3299078.360	3299078.361	3299078.362
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 10	< 8	< 7	< 6	< 11
2,6-Dinitrotoluene	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Nitrobenzene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
alpha-BHC	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
beta-BHC	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
delta-BHC	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
gamma-BHC (Lindane)	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
4,4'-DDD	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
4,4'-DDE	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
4,4'-DDT	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Dieldrin	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Endosulfan I	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2	< 3
Endosulfan sulphate	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Endrin	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Endrin ketone	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Heptachlor	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Heptachlor epoxide	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Hexachlorobenzene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Benzo[g,h,i]perylene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Benzo[k]fluoranthene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
1&2-Chloronaphthalene	mg/kg dry wt	< 0.7	< 0.6	< 0.5	< 0.5	< 0.8
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Dibenzo[a,h]anthracene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.6
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 2.2	< 1.9	< 1.6	< 1.3	< 2.6
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 2.2	< 1.9	< 1.6	< 1.3	< 2.6
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.1
2,4-Dichlorophenol	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.1

Sample Type: Sediment						
Sample Name:		STR SED 02 0.05 23-Jun-2023	STR SED 03 0.3 23-Jun-2023	STR SED 03 0.05 23-Jun-2023	STR SED 04 0.3 23-Jun-2023	STR SED 04 0.05 23-Jun-2023
Lab Number:		3299078.358	3299078.359	3299078.360	3299078.361	3299078.362
Phenols in SVOC Soil Samples by GC-MS						
2-Nitrophenol	mg/kg dry wt	< 10	< 8	< 7	< 6	< 11
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
2,4,5-Trichlorophenol	mg/kg dry wt	< 10	< 8	< 7	< 6	< 11
2,4,6-Trichlorophenol	mg/kg dry wt	< 10	< 8	< 7	< 6	< 11
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.1
Diethylphthalate	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Dimethylphthalate	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Di-n-butylphthalate	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Di-n-octylphthalate	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
1,3-Dichlorobenzene	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
1,4-Dichlorobenzene	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Hexachlorobutadiene	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
Hexachloroethane	mg/kg dry wt	< 1.9	< 1.6	< 1.3	< 1.1	< 3
1,2,4-Trichlorobenzene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 11
Carbazole	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Dibenzofuran	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Isophorone	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.6	< 1.1
Total Petroleum Hydrocarbons in Solids						
C7 - C9	mg/kg dry wt	< 50	< 40	< 30	< 30	< 60
C10 - C14	mg/kg dry wt	< 40	< 40	< 30	< 30	< 50
C15 - C36	mg/kg dry wt	< 80	117	95	< 50	< 90
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 150	144	119	< 90	< 190
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Ethylbenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Toluene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
m&p-Xylene	mg/kg dry wt	< 0.3	< 0.11	< 0.09	< 0.07	< 0.3
o-Xylene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Carbon tetrachloride	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Chloroethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Chloromethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.3	< 0.11	< 0.09	< 0.07	< 0.3
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Dibromomethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,3-Dichloropropane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Dichlorodifluoromethane	mg/kg dry wt	< 0.3	< 0.11	< 0.09	< 0.07	< 0.3
1,1-Dichloroethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2-Dichloroethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,1-Dichloroethene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Dichloromethane (methylene chloride)	mg/kg dry wt	< 3	< 1.1	< 0.9	< 0.7	< 3
1,2-Dichloropropane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13

Sample Type: Sediment						
Sample Name:		STR SED 02 0.05 23-Jun-2023	STR SED 03 0.3 23-Jun-2023	STR SED 03 0.05 23-Jun-2023	STR SED 04 0.3 23-Jun-2023	STR SED 04 0.05 23-Jun-2023
Lab Number:		3299078.358	3299078.359	3299078.360	3299078.361	3299078.362
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
1,1-Dichloropropene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Hexachlorobutadiene	mg/kg dry wt	< 0.3	< 0.11	< 0.09	< 0.07	< 0.3
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,1,1-Trichloroethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,1,2-Trichloroethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Trichlorofluoromethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2,3-Trichloropropane	mg/kg dry wt	< 0.3	< 0.11	< 0.09	< 0.07	< 0.3
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Vinyl chloride	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Halogenated Aromatics in VOC Soils by Headspace GC-MS*						
Bromobenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,3-Dichlorobenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
4-Chlorotoluene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2-Dichlorobenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2-Dichloropropane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,4-Dichlorobenzene*	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
2-Chlorotoluene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
tert-Butylbenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
n-Propylbenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
sec-Butylbenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Styrene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 30	< 11	< 9	< 7	< 30
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 5	< 3	< 1.8	< 1.3	< 6
Acetone	mg/kg dry wt	< 30	< 11	< 9	< 7	< 30
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Bromoform (tribromomethane)	mg/kg dry wt	< 0.3	< 0.11	< 0.09	< 0.07	< 0.3
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Dibromochloromethane	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	mg/kg dry wt	< 0.11	< 0.06	< 0.05	< 0.04	< 0.13

Sample Type: Sediment

Sample Name:		HSP SED 01 0.05 23-Jun-2023	HSP SED 01 0.3 23-Jun-2023	HSP SED 02 0.3 23-Jun-2023	HSP SED 02 0.05 23-Jun-2023	HSP SED 03 0.3 23-Jun-2023
Lab Number:		3299078.363	3299078.364	3299078.365	3299078.366	3299078.367
Individual Tests						
Dry Matter	g/100g as rcvd	58	66	31	65	57
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.9	1.2	1.0	0.9
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	40	< 20
pH	pH Units	5.3	5.2	5.9	5.9	5.4
Total Organic Carbon*	g/100g dry wt	5.7	3.1	6.5	3.6	4.3
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg						
Total Recoverable Arsenic	mg/kg dry wt	5	5	6	5	7
Total Recoverable Cadmium	mg/kg dry wt	0.16	0.12	0.45	0.23	0.24
Total Recoverable Chromium	mg/kg dry wt	9	10	8	12	10
Total Recoverable Copper	mg/kg dry wt	27	27	42	41	27
Total Recoverable Lead	mg/kg dry wt	55	43	32	68	96
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	0.10	0.10
Total Recoverable Nickel	mg/kg dry wt	6	6	5	7	6
Total Recoverable Zinc	mg/kg dry wt	98	90	160	141	117
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 2	< 0.4	< 2	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Trace in Soil						
Aldrin	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
alpha-BHC	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
beta-BHC	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
delta-BHC	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
gamma-BHC (Lindane)	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
cis-Chlordane	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
trans-Chlordane	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
2,4'-DDD	mg/kg dry wt	< 0.0010	< 0.0010	0.0025	< 0.0010	0.0156
4,4'-DDD	mg/kg dry wt	< 0.0010	< 0.0010	0.0020	0.0060	0.035
2,4'-DDE	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0045
4,4'-DDE	mg/kg dry wt	0.0017	0.0020	0.0088	0.0122	0.114

Sample Type: Sediment						
Sample Name:		HSP SED 01 0.05 23-Jun-2023	HSP SED 01 0.3 23-Jun-2023	HSP SED 02 0.3 23-Jun-2023	HSP SED 02 0.05 23-Jun-2023	HSP SED 03 0.3 23-Jun-2023
Lab Number:		3299078.363	3299078.364	3299078.365	3299078.366	3299078.367
Organochlorine Pesticides Trace in Soil						
2,4'-DDT	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0157
4,4'-DDT	mg/kg dry wt	0.0015	0.0014	< 0.0010	0.0048	0.041
Total DDT Isomers	mg/kg dry wt	< 0.006	< 0.006	0.014	0.024	0.22
Dieldrin	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Endosulfan I	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Endosulfan II	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Endosulfan sulphate	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Endrin	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Endrin aldehyde	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Endrin ketone	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Heptachlor	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Heptachlor epoxide	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Hexachlorobenzene	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Methoxychlor	mg/kg dry wt	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Alachlor	mg/kg dry wt	< 0.006	< 0.006	< 0.010	< 0.006	< 0.006
Atrazine	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Atrazine-desethyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Atrazine-desisopropyl	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Azaconazole	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Azinphos-methyl	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Benalaxyl	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Bitertanol	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Bromacil	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Bromopropylate	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Butachlor	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Captan	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Carbaryl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Carbofuran	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Chlorfluazuron	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Chlorothalonil	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Chlorpyrifos	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Chlorpyrifos-methyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Chlortoluron	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Cyanazine	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Cyfluthrin	mg/kg dry wt	< 0.013	< 0.011	< 0.03	< 0.011	< 0.013
Cyhalothrin	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Cypermethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.05	< 0.03	< 0.03
Cyproconazole	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Diazinon	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Dichlofluanid	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Dichloran	mg/kg dry wt	< 0.03	< 0.03	< 0.05	< 0.03	< 0.03
Dichlorvos	mg/kg dry wt	< 0.011	< 0.010	< 0.019	< 0.010	< 0.010
Difenoconazole	mg/kg dry wt	< 0.015	< 0.013	< 0.03	< 0.013	< 0.015
Dimethoate	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Diphenylamine	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Diuron	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Fenpropimorph	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Fluazifop-butyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Fluometuron	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Flusilazole	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Fluvalinate	mg/kg dry wt	< 0.008	< 0.007	< 0.014	< 0.007	< 0.008

Sample Type: Sediment						
Sample Name:		HSP SED 01 0.05 23-Jun-2023	HSP SED 01 0.3 23-Jun-2023	HSP SED 02 0.3 23-Jun-2023	HSP SED 02 0.05 23-Jun-2023	HSP SED 03 0.3 23-Jun-2023
Lab Number:		3299078.363	3299078.364	3299078.365	3299078.366	3299078.367
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Furalaxyl	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Haloxyfop-methyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Hexaconazole	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Hexazinone	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.06	< 0.05	< 0.10	< 0.05	< 0.05
Kresoxim-methyl	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Linuron	mg/kg dry wt	< 0.11	< 0.09	< 0.19	< 0.09	< 0.10
Malathion	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Metalaxyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Methamidophos	mg/kg dry wt	< 0.06	< 0.05	< 0.10	< 0.05	< 0.05
Metolachlor	mg/kg dry wt	< 0.006	< 0.006	< 0.010	< 0.006	< 0.006
Metribuzin	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Molinate	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Myclobutanil	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Naled	mg/kg dry wt	< 0.06	< 0.05	< 0.10	< 0.05	< 0.05
Norflurazon	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Oxadiazon	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Oxyfluorfen	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Paclobutrazol	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Parathion-ethyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Parathion-methyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Penconazole	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Pendimethalin	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Permethrin	mg/kg dry wt	< 0.003	< 0.003	< 0.006	< 0.003	< 0.003
Pirimicarb	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Pirimiphos-methyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Prochloraz	mg/kg dry wt	< 0.06	< 0.05	< 0.10	< 0.05	< 0.05
Procymidone	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Prometryn	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Propachlor	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Propanil	mg/kg dry wt	< 0.03	< 0.03	< 0.04	< 0.03	< 0.03
Propazine	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Propiconazole	mg/kg dry wt	< 0.008	< 0.007	< 0.014	< 0.007	< 0.008
Pyriproxyfen	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Quizalofop-ethyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Simazine	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Simetryn	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Sulfentrazone	mg/kg dry wt	< 0.06	< 0.05	< 0.10	< 0.05	< 0.05
TCMTB [2-(thiocyanomethylthio)benzothiazole,Busan]	mg/kg dry wt	< 0.11	< 0.09	< 0.19	< 0.09	< 0.10
Tebuconazole	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Terbacil	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Terbumeton	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Terbuthylazine	mg/kg dry wt	< 0.006	< 0.005	< 0.010	< 0.005	< 0.005
Terbuthylazine-desethyl	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Terbutryn	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Thiabendazole	mg/kg dry wt	< 0.06	< 0.05	< 0.10	< 0.05	< 0.05
Thiobencarb	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Tolylfluanid	mg/kg dry wt	< 0.03	< 0.018	< 0.04	< 0.018	< 0.02
Triazophos	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Trifluralin	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Vinclozolin	mg/kg dry wt	< 0.011	< 0.009	< 0.019	< 0.009	< 0.010
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5

Sample Type: Sediment

Sample Name:		HSP SED 01 0.05 23-Jun-2023	HSP SED 01 0.3 23-Jun-2023	HSP SED 02 0.3 23-Jun-2023	HSP SED 02 0.05 23-Jun-2023	HSP SED 03 0.3 23-Jun-2023
Lab Number:		3299078.363	3299078.364	3299078.365	3299078.366	3299078.367
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 6	< 5	< 10	< 5	< 5
2,6-Dinitrotoluene	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Endosulfan I	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Endrin	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
Endrin ketone	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.7	< 0.5	< 0.5
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	< 1.3	< 2.3	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	< 1.3	< 2.3	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Sample Type: Sediment						
Sample Name:		HSP SED 01 0.05 23-Jun-2023	HSP SED 01 0.3 23-Jun-2023	HSP SED 02 0.3 23-Jun-2023	HSP SED 02 0.05 23-Jun-2023	HSP SED 03 0.3 23-Jun-2023
Lab Number:		3299078.363	3299078.364	3299078.365	3299078.366	3299078.367
Phenols in SVOC Soil Samples by GC-MS						
2,4-Dichlorophenol	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 6	< 5	< 10	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	< 6	< 5	< 10	< 5	< 5
2,4,6-Trichlorophenol	mg/kg dry wt	< 6	< 5	< 10	< 5	< 5
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	< 1.1	< 1.0	< 1.9	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
1,3-Dichlorobenzene	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
1,4-Dichlorobenzene	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
Hexachlorobutadiene	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
Hexachloroethane	mg/kg dry wt	< 1.1	< 0.9	< 1.9	< 0.9	< 1.0
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 10
Carbazole	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Isophorone	mg/kg dry wt	< 0.6	< 0.5	< 1.0	< 0.5	< 0.5
Total Petroleum Hydrocarbons in Solids						
C7 - C9	mg/kg dry wt	< 30	< 30	< 50	< 30	< 30
C10 - C14	mg/kg dry wt	< 20	< 20	< 40	< 20	< 30
C15 - C36	mg/kg dry wt	< 40	< 40	< 80	< 40	47
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	< 90	< 170	< 90	< 90
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Ethylbenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Toluene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
m&p-Xylene	mg/kg dry wt	< 0.11	< 0.06	< 0.3	< 0.06	< 0.07
o-Xylene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Carbon tetrachloride	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Chloroethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Chloromethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.11	< 0.06	< 0.3	< 0.06	< 0.07
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Dibromomethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,3-Dichloropropane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Dichlorodifluoromethane	mg/kg dry wt	< 0.11	< 0.06	< 0.3	< 0.06	< 0.07
1,1-Dichloroethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2-Dichloroethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,1-Dichloroethene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04

Sample Type: Sediment						
Sample Name:		HSP SED 01 0.05 23-Jun-2023	HSP SED 01 0.3 23-Jun-2023	HSP SED 02 0.3 23-Jun-2023	HSP SED 02 0.05 23-Jun-2023	HSP SED 03 0.3 23-Jun-2023
Lab Number:		3299078.363	3299078.364	3299078.365	3299078.366	3299078.367
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Dichloromethane (methylene chloride)	mg/kg dry wt	< 1.1	< 0.6	< 3	< 0.6	< 0.7
1,2-Dichloropropane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,1-Dichloropropene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Hexachlorobutadiene	mg/kg dry wt	< 0.11	< 0.06	< 0.3	< 0.06	< 0.07
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,1,1-Trichloroethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,1,2-Trichloroethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Trichlorofluoromethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2,3-Trichloropropane	mg/kg dry wt	< 0.11	< 0.06	< 0.3	< 0.06	< 0.07
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Vinyl chloride	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Halogenated Aromatics in VOC Soils by Headspace GC-MS*						
Bromobenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,3-Dichlorobenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
4-Chlorotoluene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2-Dichlorobenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2-Dichloropropane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,4-Dichlorobenzene*	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
2-Chlorotoluene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
tert-Butylbenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
n-Propylbenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
sec-Butylbenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Styrene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 11	< 6	< 30	< 6	< 7
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 3	< 1.1	< 5	< 1.1	< 1.3
Acetone	mg/kg dry wt	< 11	< 6	< 30	< 6	< 7
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Bromoform (tribromomethane)	mg/kg dry wt	< 0.11	< 0.06	< 0.3	< 0.06	< 0.07
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04
Dibromochloromethane	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04

Sample Type: Sediment

Sample Name:		HSP SED 01 0.05 23-Jun-2023	HSP SED 01 0.3 23-Jun-2023	HSP SED 02 0.3 23-Jun-2023	HSP SED 02 0.05 23-Jun-2023	HSP SED 03 0.3 23-Jun-2023
Lab Number:		3299078.363	3299078.364	3299078.365	3299078.366	3299078.367
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	mg/kg dry wt	< 0.06	< 0.03	< 0.11	< 0.03	< 0.04

Sample Name:		HSP SED 03 0.05 23-Jun-2023	HSP SED 04 0.3 23-Jun-2023	HSP SED 04 0.05 23-Jun-2023	HSP SED 05 0.3 23-Jun-2023	HSP SED 05 0.05 23-Jun-2023
Lab Number:		3299078.368	3299078.369	3299078.370	3299078.371	3299078.372
Individual Tests						
Dry Matter	g/100g as rcvd	54	31	27	43	54
Total Recoverable Beryllium	mg/kg dry wt	0.9	1.0	1.0	1.3	1.0
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
pH	pH Units	5.4	5.4	5.7	6.1	6.0
Total Organic Carbon*	g/100g dry wt	4.0	7.2	5.5	0.67	0.17
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg						
Total Recoverable Arsenic	mg/kg dry wt	6	6	5	6	2
Total Recoverable Cadmium	mg/kg dry wt	0.25	0.44	0.42	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	9	9	9	7	7
Total Recoverable Copper	mg/kg dry wt	27	67	54	15	17
Total Recoverable Lead	mg/kg dry wt	33	63	42	13.0	10.7
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	5	6	7	4	5
Total Recoverable Zinc	mg/kg dry wt	125	260	250	47	51
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 2	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Trace in Soil						
Aldrin	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
alpha-BHC	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
beta-BHC	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
delta-BHC	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
gamma-BHC (Lindane)	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010

Sample Type: Sediment						
	Sample Name:	HSP SED 03 0.05 23-Jun-2023	HSP SED 04 0.3 23-Jun-2023	HSP SED 04 0.05 23-Jun-2023	HSP SED 05 0.3 23-Jun-2023	HSP SED 05 0.05 23-Jun-2023
	Lab Number:	3299078.368	3299078.369	3299078.370	3299078.371	3299078.372
Organochlorine Pesticides Trace in Soil						
cis-Chlordane	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
trans-Chlordane	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
2,4'-DDD	mg/kg dry wt	0.034	0.0065	0.0036	< 0.0010	< 0.0010
4,4'-DDD	mg/kg dry wt	0.076	0.0099	0.0092	< 0.0010	< 0.0010
2,4'-DDE	mg/kg dry wt	0.0026	< 0.0016	< 0.0010	< 0.0010	< 0.0010
4,4'-DDE	mg/kg dry wt	0.057	0.0111	0.0092	< 0.0010	< 0.0010
2,4'-DDT	mg/kg dry wt	0.049	< 0.0016	< 0.0010	< 0.0010	< 0.0010
4,4'-DDT	mg/kg dry wt	0.21	0.0031	0.0100	< 0.0010	< 0.0010
Total DDT Isomers	mg/kg dry wt	0.43	0.031	0.033	< 0.006	< 0.006
Dieldrin	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Endosulfan I	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Endosulfan II	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Endosulfan sulphate	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Endrin	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Endrin aldehyde	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Endrin ketone	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Heptachlor	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Heptachlor epoxide	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Hexachlorobenzene	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Methoxychlor	mg/kg dry wt	< 0.0010	< 0.0016	< 0.0010	< 0.0010	< 0.0010
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Alachlor	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Atrazine	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Atrazine-desethyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Atrazine-desisopropyl	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Azaconazole	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Azinphos-methyl	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Benalaxyl	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Bitertanol	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Bromacil	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Bromopropylate	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Butachlor	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Captan	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Carbaryl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Carbofuran	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Chlorfluazuron	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Chlorothalonil	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Chlorpyrifos	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Chlorpyrifos-methyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Chlortoluron	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Cyanazine	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Cyfluthrin	mg/kg dry wt	< 0.014	< 0.3	< 0.3	< 0.017	< 0.014
Cyhalothrin	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Cypermethrin	mg/kg dry wt	< 0.03	< 0.5	< 0.6	< 0.04	< 0.03
Cyproconazole	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Diazinon	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Dichlofluanid	mg/kg dry wt	< 0.03	< 0.19	< 0.3	< 0.014	< 0.011
Dichloran	mg/kg dry wt	< 0.03	< 0.5	< 0.6	< 0.04	< 0.03
Dichlorvos	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Difenoconazole	mg/kg dry wt	< 0.016	< 0.3	< 0.4	< 0.02	< 0.016
Dimethoate	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Diphenylamine	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03

Sample Type: Sediment						
	Sample Name:	HSP SED 03 0.05 23-Jun-2023	HSP SED 04 0.3 23-Jun-2023	HSP SED 04 0.05 23-Jun-2023	HSP SED 05 0.3 23-Jun-2023	HSP SED 05 0.05 23-Jun-2023
	Lab Number:	3299078.368	3299078.369	3299078.370	3299078.371	3299078.372
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Diuron	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Fenpropimorph	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Fluazifop-butyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Fluometuron	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Flusilazole	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Fluvalinate	mg/kg dry wt	< 0.008	< 0.14	< 0.16	< 0.010	< 0.008
Furalaxyl	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Haloxyfop-methyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Hexaconazole	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Hexazinone	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.06	< 1.0	< 1.1	< 0.07	< 0.06
Kresoxim-methyl	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Linuron	mg/kg dry wt	< 0.11	< 0.19	< 0.3	< 0.014	< 0.011
Malathion	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Metalaxyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Methamidophos	mg/kg dry wt	< 0.06	< 1.0	< 1.1	< 0.07	< 0.06
Metolachlor	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Metribuzin	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Molinate	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Myclobutanil	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Naled	mg/kg dry wt	< 0.06	< 1.0	< 1.1	< 0.07	< 0.06
Norflurazon	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Oxadiazon	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Oxyfluorfen	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Paclobutrazol	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Parathion-ethyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Parathion-methyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Penconazole	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Pendimethalin	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Permethrin	mg/kg dry wt	< 0.004	< 0.06	< 0.07	< 0.004	< 0.004
Pirimicarb	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Pirimiphos-methyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Prochloraz	mg/kg dry wt	< 0.06	< 1.0	< 1.1	< 0.07	< 0.06
Procymidone	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Prometryn	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Propachlor	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Propanil	mg/kg dry wt	< 0.03	< 0.4	< 0.5	< 0.03	< 0.03
Propazine	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Propiconazole	mg/kg dry wt	< 0.008	< 0.14	< 0.16	< 0.010	< 0.008
Pyriproxyfen	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Quizalofop-ethyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Simazine	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Simetryn	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Sulfentrazone	mg/kg dry wt	< 0.06	< 1.0	< 1.1	< 0.07	< 0.06
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.11	< 0.4	< 0.5	< 0.03	< 0.03
Tebuconazole	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Terbacil	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Terbumeton	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Terbuthylazine	mg/kg dry wt	< 0.006	< 0.10	< 0.11	< 0.007	< 0.006
Terbuthylazine-desethyl	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Terbutryn	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Thiabendazole	mg/kg dry wt	< 0.06	< 1.0	< 1.1	< 0.07	< 0.06
Thiobencarb	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011

Sample Type: Sediment						
Sample Name:		HSP SED 03 0.05 23-Jun-2023	HSP SED 04 0.3 23-Jun-2023	HSP SED 04 0.05 23-Jun-2023	HSP SED 05 0.3 23-Jun-2023	HSP SED 05 0.05 23-Jun-2023
Lab Number:		3299078.368	3299078.369	3299078.370	3299078.371	3299078.372
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS						
Tolylfluanid	mg/kg dry wt	< 0.03	< 0.10	< 0.11	< 0.007	< 0.006
Triazophos	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Trifluralin	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Vinclozolin	mg/kg dry wt	< 0.011	< 0.19	< 0.3	< 0.014	< 0.011
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 6	< 10	< 11	< 1.4	< 1.1
2,6-Dinitrotoluene	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Nitrobenzene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
alpha-BHC	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
beta-BHC	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
delta-BHC	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
gamma-BHC (Lindane)	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
4,4'-DDD	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
4,4'-DDE	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
4,4'-DDT	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Dieldrin	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Endosulfan I	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Endosulfan II	mg/kg dry wt	< 2	< 2	< 3	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Endrin	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Endrin ketone	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Heptachlor	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Heptachlor epoxide	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Hexachlorobenzene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Benzo[k]fluoranthene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.7	< 0.8	< 0.5	< 0.5
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5

Sample Type: Sediment						
Sample Name:		HSP SED 03 0.05 23-Jun-2023	HSP SED 04 0.3 23-Jun-2023	HSP SED 04 0.05 23-Jun-2023	HSP SED 05 0.3 23-Jun-2023	HSP SED 05 0.05 23-Jun-2023
Lab Number:		3299078.368	3299078.369	3299078.370	3299078.371	3299078.372
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.4	< 2.3	< 2.6	< 1.7	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.4	< 2.3	< 2.6	< 1.7	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.1	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.1	< 2	< 3	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.1	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 6	< 10	< 11	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
2,4,5-Trichlorophenol	mg/kg dry wt	< 6	< 10	< 11	< 1.4	< 1.1
2,4,6-Trichlorophenol	mg/kg dry wt	< 6	< 10	< 11	< 1.4	< 1.1
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	6	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.1	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Dimethylphthalate	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Di-n-butylphthalate	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Di-n-octylphthalate	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
1,3-Dichlorobenzene	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
1,4-Dichlorobenzene	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Hexachlorobutadiene	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
Hexachloroethane	mg/kg dry wt	< 1.1	< 2	< 3	< 1.4	< 1.1
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 11	< 10	< 10
Carbazole	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Dibenzofuran	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Isophorone	mg/kg dry wt	< 0.6	< 1.0	< 1.1	< 0.7	< 0.6
Total Petroleum Hydrocarbons in Solids						
C7 - C9	mg/kg dry wt	< 30	< 50	< 60	< 40	< 30
C10 - C14	mg/kg dry wt	< 30	< 40	59	< 30	< 30
C15 - C36	mg/kg dry wt	< 50	300	210	< 60	< 50
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	340	260	< 120	< 90
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Ethylbenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Toluene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
m&p-Xylene	mg/kg dry wt	< 0.12	< 0.3	< 0.3	< 0.15	< 0.07
o-Xylene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Carbon tetrachloride	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Chloroethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Chloromethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.12	< 0.3	< 0.3	< 0.15	< 0.07

Sample Type: Sediment						
Sample Name:		HSP SED 03 0.05 23-Jun-2023	HSP SED 04 0.3 23-Jun-2023	HSP SED 04 0.05 23-Jun-2023	HSP SED 05 0.3 23-Jun-2023	HSP SED 05 0.05 23-Jun-2023
Lab Number:		3299078.368	3299078.369	3299078.370	3299078.371	3299078.372
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Dibromomethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,3-Dichloropropane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Dichlorodifluoromethane	mg/kg dry wt	< 0.12	< 0.3	< 0.3	< 0.15	< 0.07
1,1-Dichloroethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2-Dichloroethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,1-Dichloroethene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Dichloromethane (methylene chloride)	mg/kg dry wt	< 1.2	< 3	< 3	< 1.5	< 0.7
1,2-Dichloropropane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,1-Dichloropropene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Hexachlorobutadiene	mg/kg dry wt	< 0.12	< 0.3	< 0.3	< 0.08	< 0.04
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,1,1-Trichloroethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,1,2-Trichloroethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Trichlorofluoromethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2,3-Trichloropropane	mg/kg dry wt	< 0.12	< 0.3	< 0.3	< 0.15	< 0.07
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Vinyl chloride	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Halogenated Aromatics in VOC Soils by Headspace GC-MS*						
Bromobenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,3-Dichlorobenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
4-Chlorotoluene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2-Dichlorobenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2-Dichloropropane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,4-Dichlorobenzene*	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
2-Chlorotoluene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
tert-Butylbenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
n-Propylbenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
sec-Butylbenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Styrene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	< 12	< 30	< 30	< 15	< 7
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 3	< 5	< 6	< 3	< 1.4

Sample Type: Sediment						
Sample Name:		HSP SED 03 0.05 23-Jun-2023	HSP SED 04 0.3 23-Jun-2023	HSP SED 04 0.05 23-Jun-2023	HSP SED 05 0.3 23-Jun-2023	HSP SED 05 0.05 23-Jun-2023
Lab Number:		3299078.368	3299078.369	3299078.370	3299078.371	3299078.372
Ketones in VOC Soils by Headspace GC-MS						
Acetone	mg/kg dry wt	< 12	< 30	< 30	< 15	< 7
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Bromoform (tribromomethane)	mg/kg dry wt	< 0.12	< 0.3	< 0.3	< 0.15	< 0.07
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Dibromochloromethane	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	mg/kg dry wt	< 0.06	< 0.11	< 0.13	< 0.08	< 0.04

Sample Name:		HSP SED 01 0.1
Lab Number:		3299078.401
Individual Tests		
Dry Matter	g/100g as rcvd	30
Total Recoverable Beryllium	mg/kg dry wt	1.3
Total Recoverable Boron	mg/kg dry wt	< 20
pH	pH Units	5.2
Total Organic Carbon*	g/100g dry wt	9.1
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg		
Total Recoverable Arsenic	mg/kg dry wt	5
Total Recoverable Cadmium	mg/kg dry wt	0.32
Total Recoverable Chromium	mg/kg dry wt	11
Total Recoverable Copper	mg/kg dry wt	47
Total Recoverable Lead	mg/kg dry wt	143
Total Recoverable Mercury	mg/kg dry wt	< 0.10
Total Recoverable Nickel	mg/kg dry wt	9
Total Recoverable Zinc	mg/kg dry wt	185
Acid Herbicides Screen in Soil by LCMSMS		
Acifluorfen	mg/kg dry wt	< 0.2
Bentazone	mg/kg dry wt	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2
Clopyralid	mg/kg dry wt	< 0.2
Dicamba	mg/kg dry wt	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2
Fluazifop	mg/kg dry wt	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2
Oryzalin	mg/kg dry wt	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2
Picloram	mg/kg dry wt	< 0.2
Quizalofop	mg/kg dry wt	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2

Sample Type: Sediment		
	Sample Name:	HSP SED 01 0.1
	Lab Number:	3299078.401
Acid Herbicides Screen in Soil by LCMSMS		
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2
Triclopyr	mg/kg dry wt	< 0.2
Organochlorine Pesticides Trace in Soil		
Aldrin	mg/kg dry wt	< 0.0010
alpha-BHC	mg/kg dry wt	< 0.0010
beta-BHC	mg/kg dry wt	< 0.0010
delta-BHC	mg/kg dry wt	< 0.0010
gamma-BHC (Lindane)	mg/kg dry wt	< 0.0010
cis-Chlordane	mg/kg dry wt	< 0.0010
trans-Chlordane	mg/kg dry wt	< 0.0010
2,4'-DDD	mg/kg dry wt	< 0.0010
4,4'-DDD	mg/kg dry wt	< 0.0010
2,4'-DDE	mg/kg dry wt	< 0.0010
4,4'-DDE	mg/kg dry wt	0.0035
2,4'-DDT	mg/kg dry wt	< 0.0010
4,4'-DDT	mg/kg dry wt	0.0017
Total DDT Isomers	mg/kg dry wt	< 0.006
Dieldrin	mg/kg dry wt	< 0.0010
Endosulfan I	mg/kg dry wt	< 0.0010
Endosulfan II	mg/kg dry wt	< 0.0010
Endosulfan sulphate	mg/kg dry wt	< 0.0010
Endrin	mg/kg dry wt	< 0.0010
Endrin aldehyde	mg/kg dry wt	< 0.0010
Endrin ketone	mg/kg dry wt	< 0.0010
Heptachlor	mg/kg dry wt	< 0.0010
Heptachlor epoxide	mg/kg dry wt	< 0.0010
Hexachlorobenzene	mg/kg dry wt	< 0.0010
Methoxychlor	mg/kg dry wt	< 0.0010
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS		
Acetochlor	mg/kg dry wt	< 0.03
Alachlor	mg/kg dry wt	< 0.011
Atrazine	mg/kg dry wt	< 0.03
Atrazine-desethyl	mg/kg dry wt	< 0.03
Atrazine-desisopropyl	mg/kg dry wt	< 0.05
Azaconazole	mg/kg dry wt	< 0.011
Azinphos-methyl	mg/kg dry wt	< 0.05
Benalaxyl	mg/kg dry wt	< 0.011
Bitertanol	mg/kg dry wt	< 0.05
Bromacil	mg/kg dry wt	< 0.03
Bromopropylate	mg/kg dry wt	< 0.03
Butachlor	mg/kg dry wt	< 0.03
Captan	mg/kg dry wt	< 0.05
Carbaryl	mg/kg dry wt	< 0.03
Carbofuran	mg/kg dry wt	< 0.03
Chlorfluazuron	mg/kg dry wt	< 0.03
Chlorothalonil	mg/kg dry wt	< 0.03
Chlorpyrifos	mg/kg dry wt	< 0.03
Chlorpyrifos-methyl	mg/kg dry wt	< 0.03
Chlortoluron	mg/kg dry wt	< 0.05
Cyanazine	mg/kg dry wt	< 0.03
Cyfluthrin	mg/kg dry wt	< 0.03
Cyhalothrin	mg/kg dry wt	< 0.03
Cypermethrin	mg/kg dry wt	< 0.06
Cyproconazole	mg/kg dry wt	< 0.05

Sample Type: Sediment		
	Sample Name:	HSP SED 01 0.1
	Lab Number:	3299078.401
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS		
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.03
Diazinon	mg/kg dry wt	< 0.011
Dichlofluanid	mg/kg dry wt	< 0.03
Dichloran	mg/kg dry wt	< 0.06
Dichlorvos	mg/kg dry wt	< 0.03
Difenoconazole	mg/kg dry wt	< 0.03
Dimethoate	mg/kg dry wt	< 0.05
Diphenylamine	mg/kg dry wt	< 0.05
Diuron	mg/kg dry wt	< 0.03
Fenpropimorph	mg/kg dry wt	< 0.03
Fluazifop-butyl	mg/kg dry wt	< 0.03
Fluometuron	mg/kg dry wt	< 0.03
Flusilazole	mg/kg dry wt	< 0.03
Fluvalinate	mg/kg dry wt	< 0.015
Furalaxyl	mg/kg dry wt	< 0.011
Haloxyfop-methyl	mg/kg dry wt	< 0.03
Hexaconazole	mg/kg dry wt	< 0.03
Hexazinone	mg/kg dry wt	< 0.011
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.11
Kresoxim-methyl	mg/kg dry wt	< 0.011
Linuron	mg/kg dry wt	< 0.03
Malathion	mg/kg dry wt	< 0.03
Metalaxyl	mg/kg dry wt	< 0.03
Methamidophos	mg/kg dry wt	< 0.11
Metolachlor	mg/kg dry wt	< 0.011
Metribuzin	mg/kg dry wt	< 0.03
Molinate	mg/kg dry wt	< 0.05
Myclobutanil	mg/kg dry wt	< 0.03
Naled	mg/kg dry wt	< 0.11
Norflurazon	mg/kg dry wt	< 0.05
Oxadiazon	mg/kg dry wt	< 0.03
Oxyfluorfen	mg/kg dry wt	< 0.011
Paclobutrazol	mg/kg dry wt	< 0.03
Parathion-ethyl	mg/kg dry wt	< 0.03
Parathion-methyl	mg/kg dry wt	< 0.03
Penconazole	mg/kg dry wt	< 0.03
Pendimethalin	mg/kg dry wt	< 0.03
Permethrin	mg/kg dry wt	< 0.006
Pirimicarb	mg/kg dry wt	< 0.03
Pirimiphos-methyl	mg/kg dry wt	< 0.03
Prochloraz	mg/kg dry wt	< 0.11
Procymidone	mg/kg dry wt	< 0.03
Prometryn	mg/kg dry wt	< 0.011
Propachlor	mg/kg dry wt	< 0.03
Propanil	mg/kg dry wt	< 0.05
Propazine	mg/kg dry wt	< 0.011
Propiconazole	mg/kg dry wt	< 0.015
Pyriproxyfen	mg/kg dry wt	< 0.03
Quizalofop-ethyl	mg/kg dry wt	< 0.03
Simazine	mg/kg dry wt	< 0.03
Simetryn	mg/kg dry wt	< 0.03
Sulfentrazone	mg/kg dry wt	< 0.11
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.05

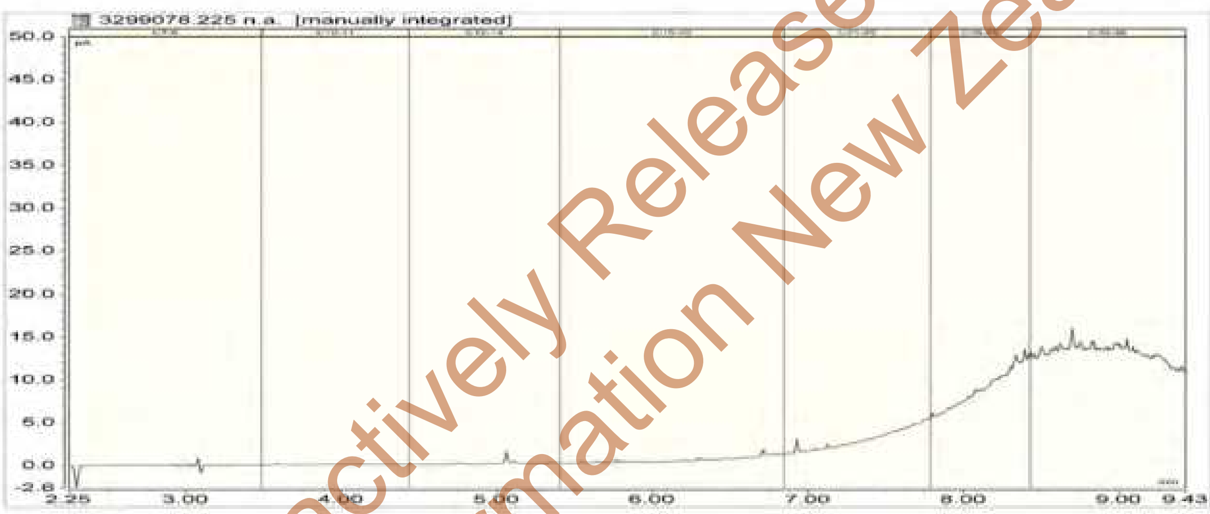
Sample Type: Sediment		
	Sample Name:	HSP SED 01 0.1
	Lab Number:	3299078.401
Organonitro&phosphorus Pesticides Trace in MR Soil by GCMS		
Tebuconazole	mg/kg dry wt	< 0.03
Terbacil	mg/kg dry wt	< 0.03
Terbumeton	mg/kg dry wt	< 0.03
Terbuthylazine	mg/kg dry wt	< 0.011
Terbuthylazine-desethyl	mg/kg dry wt	< 0.03
Terbutryn	mg/kg dry wt	< 0.03
Thiabendazole	mg/kg dry wt	< 0.11
Thiobencarb	mg/kg dry wt	< 0.03
Tolylfluanid	mg/kg dry wt	< 0.011
Triazophos	mg/kg dry wt	< 0.03
Trifluralin	mg/kg dry wt	< 0.03
Vinclozolin	mg/kg dry wt	< 0.03
Haloethers in SVOC Soil Samples by GC-MS		
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 1.0
Bis(2-chloroethyl)ether	mg/kg dry wt	< 1.0
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 1.0
4-Bromophenyl phenyl ether	mg/kg dry wt	< 1.0
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 1.0
Nitrogen containing compounds in SVOC Soil Samples by GC-MS		
2,4-Dinitrotoluene	mg/kg dry wt	< 2
2,6-Dinitrotoluene	mg/kg dry wt	< 2
Nitrobenzene	mg/kg dry wt	< 1.0
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 2
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 2
Organochlorine Pesticides in SVOC Soil Samples by GC-MS		
Aldrin	mg/kg dry wt	< 1.0
alpha-BHC	mg/kg dry wt	< 1.0
beta-BHC	mg/kg dry wt	< 1.0
delta-BHC	mg/kg dry wt	< 1.0
gamma-BHC (Lindane)	mg/kg dry wt	< 1.0
4,4'-DDD	mg/kg dry wt	< 1.0
4,4'-DDE	mg/kg dry wt	< 1.0
4,4'-DDT	mg/kg dry wt	< 2
Dieldrin	mg/kg dry wt	< 1.0
Endosulfan I	mg/kg dry wt	< 2
Endosulfan II	mg/kg dry wt	< 2
Endosulfan sulphate	mg/kg dry wt	< 2
Endrin	mg/kg dry wt	< 2
Endrin ketone	mg/kg dry wt	< 2
Heptachlor	mg/kg dry wt	< 1.0
Heptachlor epoxide	mg/kg dry wt	< 1.0
Hexachlorobenzene	mg/kg dry wt	< 1.0
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*		
Acenaphthene	mg/kg dry wt	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5
Anthracene	mg/kg dry wt	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 1.0
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 1.0
Benzo[g,h,i]perylene	mg/kg dry wt	< 1.0
Benzo[k]fluoranthene	mg/kg dry wt	< 1.0
1&2-Chloronaphthalene	mg/kg dry wt	< 0.7
Chrysene	mg/kg dry wt	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 1.0

Sample Type: Sediment		
	Sample Name:	HSP SED 01 0.1
	Lab Number:	3299078.401
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*		
Fluoranthene	mg/kg dry wt	< 0.5
Fluorene	mg/kg dry wt	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 1.0
2-Methylnaphthalene	mg/kg dry wt	< 0.5
Naphthalene	mg/kg dry wt	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5
Pyrene	mg/kg dry wt	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 2.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 2.3
Phenols in SVOC Soil Samples by GC-MS		
4-Chloro-3-methylphenol	mg/kg dry wt	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30
Phenol	mg/kg dry wt	< 2
2,4,5-Trichlorophenol	mg/kg dry wt	< 2
2,4,6-Trichlorophenol	mg/kg dry wt	< 2
Plasticisers in SVOC Soil Samples by GC-MS		
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5
Butylbenzylphthalate	mg/kg dry wt	< 2
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0
Diethylphthalate	mg/kg dry wt	< 2
Dimethylphthalate	mg/kg dry wt	< 2
Di-n-butylphthalate	mg/kg dry wt	< 2
Di-n-octylphthalate	mg/kg dry wt	< 2
Other Halogenated compounds in SVOC Soil Samples by GC-MS		
1,2-Dichlorobenzene	mg/kg dry wt	< 2
1,3-Dichlorobenzene	mg/kg dry wt	< 2
1,4-Dichlorobenzene	mg/kg dry wt	< 2
Hexachlorobutadiene	mg/kg dry wt	< 2
Hexachloroethane	mg/kg dry wt	< 2
1,2,4-Trichlorobenzene	mg/kg dry wt	< 1.0
Other compounds in SVOC Soil Samples by GC-MS		
Benzyl alcohol	mg/kg dry wt	< 10
Carbazole	mg/kg dry wt	< 1.0
Dibenzofuran	mg/kg dry wt	< 1.0
Isophorone	mg/kg dry wt	< 1.0
Total Petroleum Hydrocarbons in Solids		
C7 - C9	mg/kg dry wt	< 50
C10 - C14	mg/kg dry wt	< 40
C15 - C36	mg/kg dry wt	< 80
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 170
BTEX in VOC Soils by Headspace GC-MS		
Benzene	mg/kg dry wt	< 0.12
Ethylbenzene	mg/kg dry wt	< 0.12
Toluene	mg/kg dry wt	0.17
m&p-Xylene	mg/kg dry wt	< 0.3
o-Xylene	mg/kg dry wt	< 0.12

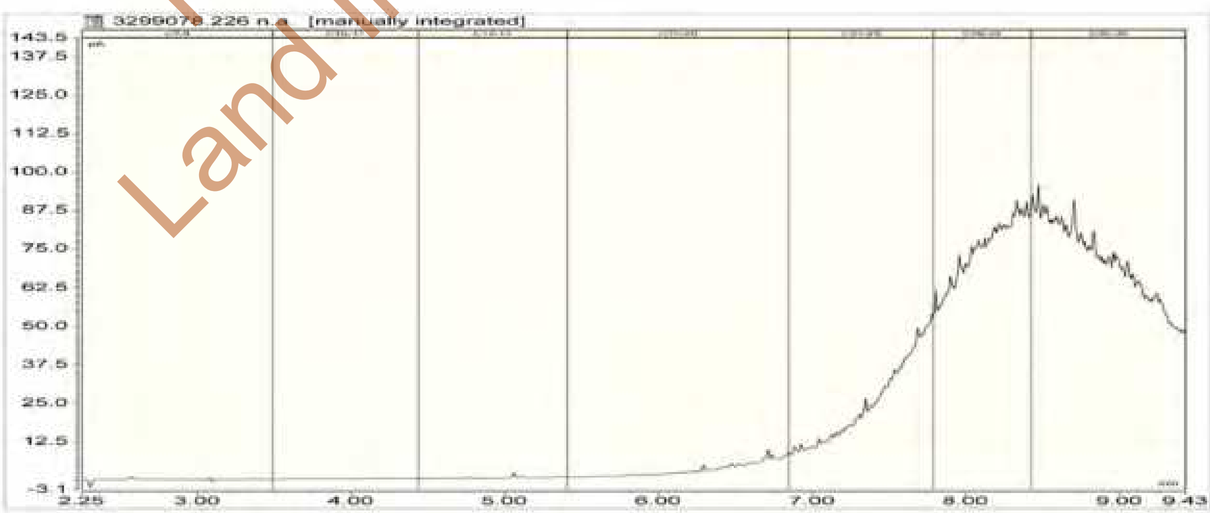
Sample Type: Sediment		
	Sample Name:	HSP SED 01 0.1
	Lab Number:	3299078.401
Halogenated Aliphatics in VOC Soils by Headspace GC-MS		
Bromomethane (Methyl Bromide)	mg/kg dry wt	< 0.12
Carbon tetrachloride	mg/kg dry wt	< 0.12
Chloroethane	mg/kg dry wt	< 0.12
Chloromethane	mg/kg dry wt	< 0.12
1,2-Dibromo-3-chloropropane	mg/kg dry wt	< 0.3
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	< 0.12
Dibromomethane	mg/kg dry wt	< 0.12
1,3-Dichloropropane	mg/kg dry wt	< 0.12
Dichlorodifluoromethane	mg/kg dry wt	< 0.3
1,1-Dichloroethane	mg/kg dry wt	< 0.12
1,2-Dichloroethane	mg/kg dry wt	< 0.12
1,1-Dichloroethene	mg/kg dry wt	< 0.12
cis-1,2-Dichloroethene	mg/kg dry wt	< 0.12
trans-1,2-Dichloroethene	mg/kg dry wt	< 0.12
Dichloromethane (methylene chloride)	mg/kg dry wt	< 3
1,2-Dichloropropane	mg/kg dry wt	< 0.12
1,1-Dichloropropene	mg/kg dry wt	< 0.12
cis-1,3-Dichloropropene	mg/kg dry wt	< 0.12
trans-1,3-Dichloropropene	mg/kg dry wt	< 0.12
Hexachlorobutadiene	mg/kg dry wt	< 0.12
1,1,1,2-Tetrachloroethane	mg/kg dry wt	< 0.12
1,1,2,2-Tetrachloroethane	mg/kg dry wt	< 0.12
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	< 0.12
1,1,1-Trichloroethane	mg/kg dry wt	< 0.12
1,1,2-Trichloroethane	mg/kg dry wt	< 0.12
Trichloroethene (trichloroethylene)	mg/kg dry wt	< 0.12
Trichlorofluoromethane	mg/kg dry wt	< 0.12
1,2,3-Trichloropropane	mg/kg dry wt	< 0.3
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	< 0.12
Vinyl chloride	mg/kg dry wt	< 0.12
Halogenated Aromatics in VOC Soils by Headspace GC-MS*		
Bromobenzene	mg/kg dry wt	< 0.12
1,3-Dichlorobenzene	mg/kg dry wt	< 0.12
4-Chlorotoluene	mg/kg dry wt	< 0.12
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	< 0.12
1,2-Dichlorobenzene	mg/kg dry wt	< 0.12
1,2-Dichloropropane	mg/kg dry wt	< 0.12
1,4-Dichlorobenzene*	mg/kg dry wt	< 0.12
2-Chlorotoluene	mg/kg dry wt	< 0.12
1,2,3-Trichlorobenzene	mg/kg dry wt	< 0.12
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.12
1,3,5-Trichlorobenzene	mg/kg dry wt	< 0.12
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS		
n-Butylbenzene	mg/kg dry wt	< 0.12
tert-Butylbenzene	mg/kg dry wt	< 0.12
Isopropylbenzene (Cumene)	mg/kg dry wt	< 0.12
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	< 0.12
n-Propylbenzene	mg/kg dry wt	< 0.12
sec-Butylbenzene	mg/kg dry wt	< 0.12
Styrene	mg/kg dry wt	< 0.12
1,2,4-Trimethylbenzene	mg/kg dry wt	< 0.12

Sample Type: Sediment		
Sample Name:		HSP SED 01 0.1
Lab Number:		3299078.401
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS		
1,3,5-Trimethylbenzene	mg/kg dry wt	< 0.12
Ketones in VOC Soils by Headspace GC-MS		
2-Butanone (MEK)	mg/kg dry wt	< 30
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	< 5
Acetone	mg/kg dry wt	< 30
Methyl tert-butylether (MTBE)	mg/kg dry wt	< 0.12
Trihalomethanes in VOC Soils by Headspace GC-MS		
Bromodichloromethane	mg/kg dry wt	< 0.12
Bromoform (tribromomethane)	mg/kg dry wt	< 0.3
Chloroform (Trichloromethane)	mg/kg dry wt	< 0.12
Dibromochloromethane	mg/kg dry wt	< 0.12
Other VOC in Soils by Headspace GC-MS		
Carbon disulphide	mg/kg dry wt	< 0.05
Naphthalene	mg/kg dry wt	< 0.12

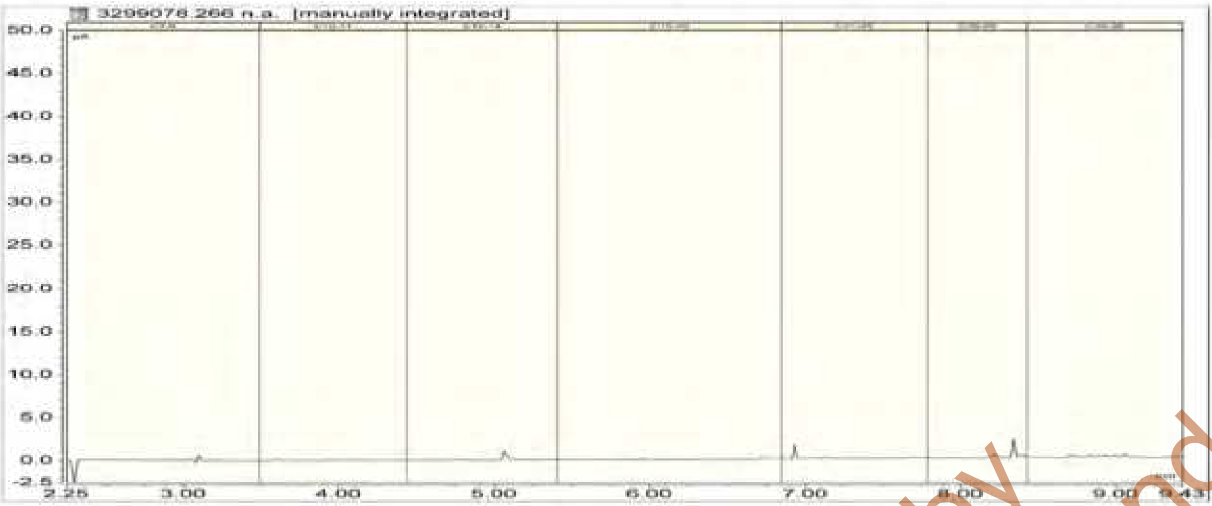
3299078.225
B66 HA01 14-Jun-2023
Client Chromatogram for TPH by FID



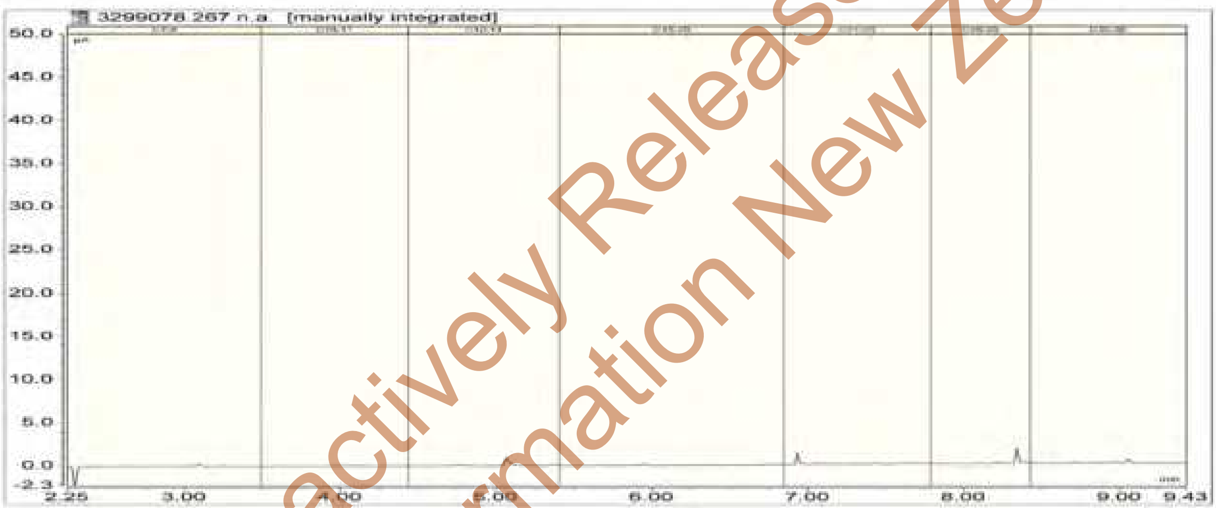
3299078.226
B66 HA02 14-Jun-2023
Client Chromatogram for TPH by FID



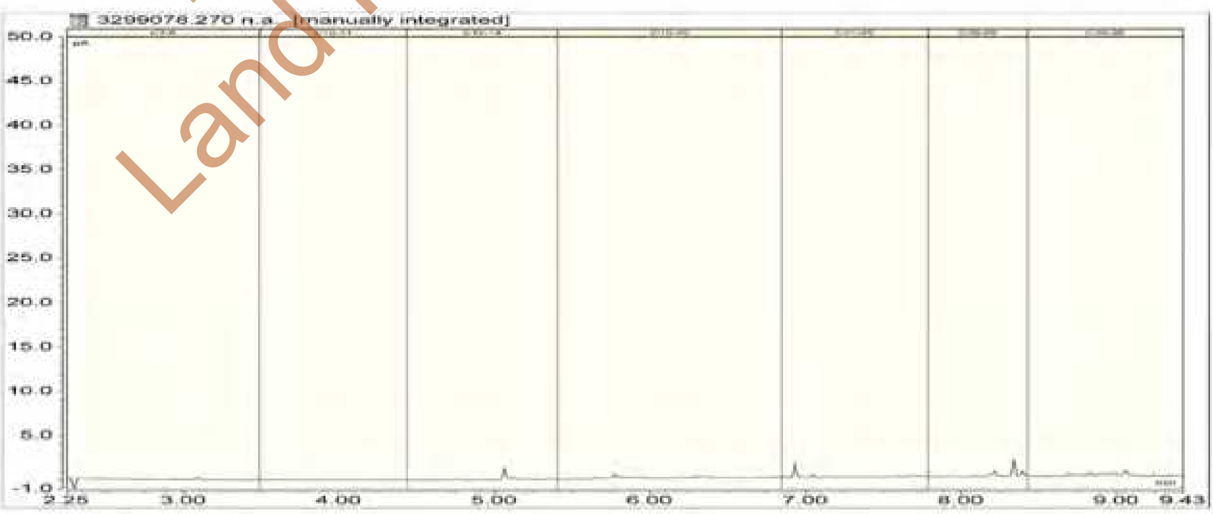
3299078.266
B26 TP01 0.1 19-Jun-2023
Client Chromatogram for TPH by FID



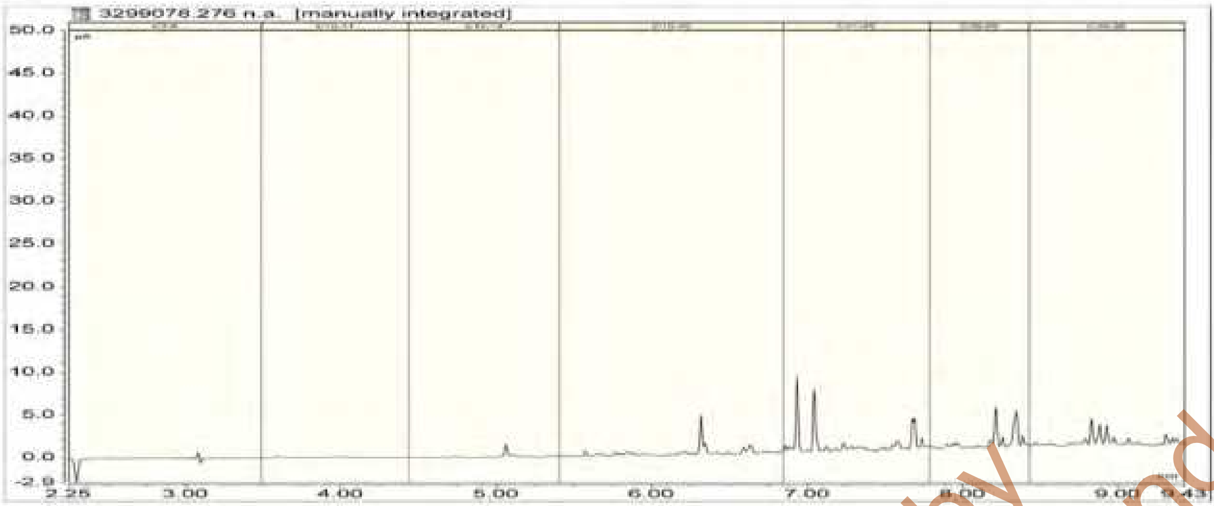
3299078.267
B26 TP02 0.1 19-Jun-2023
Client Chromatogram for TPH by FID



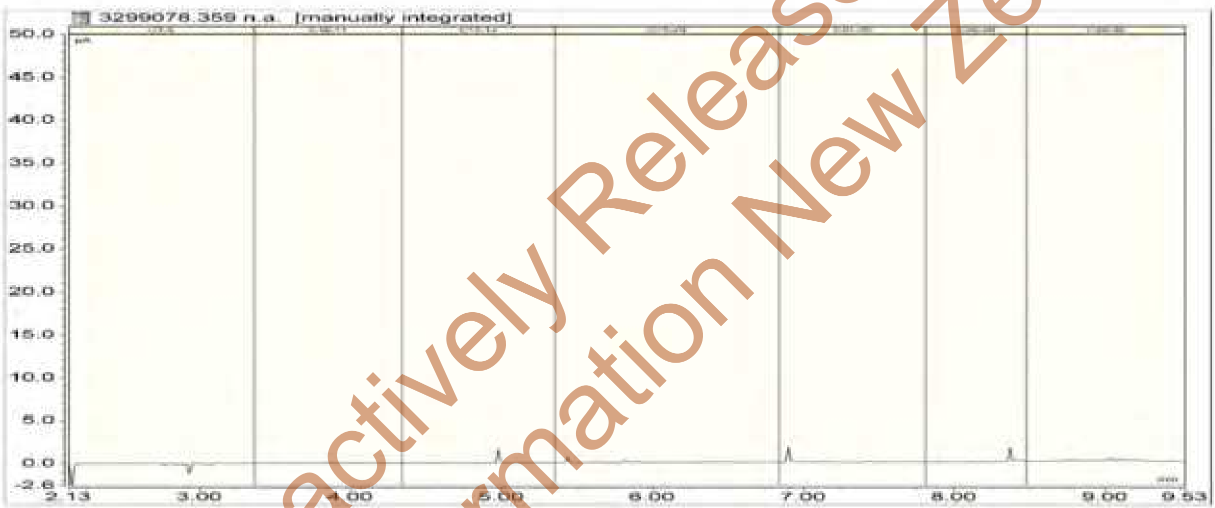
3299078.270
B26 TP03 0.1 19-Jun-2023
Client Chromatogram for TPH by FID



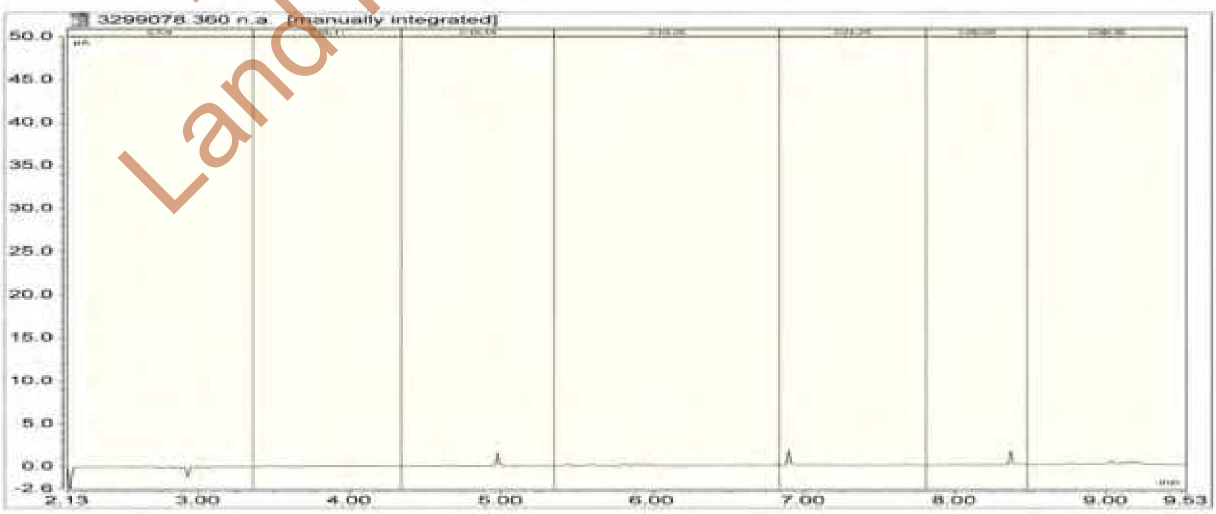
3299078.276
B65 TP01 0.1 16-Jun-2023
Client Chromatogram for TPH by FID



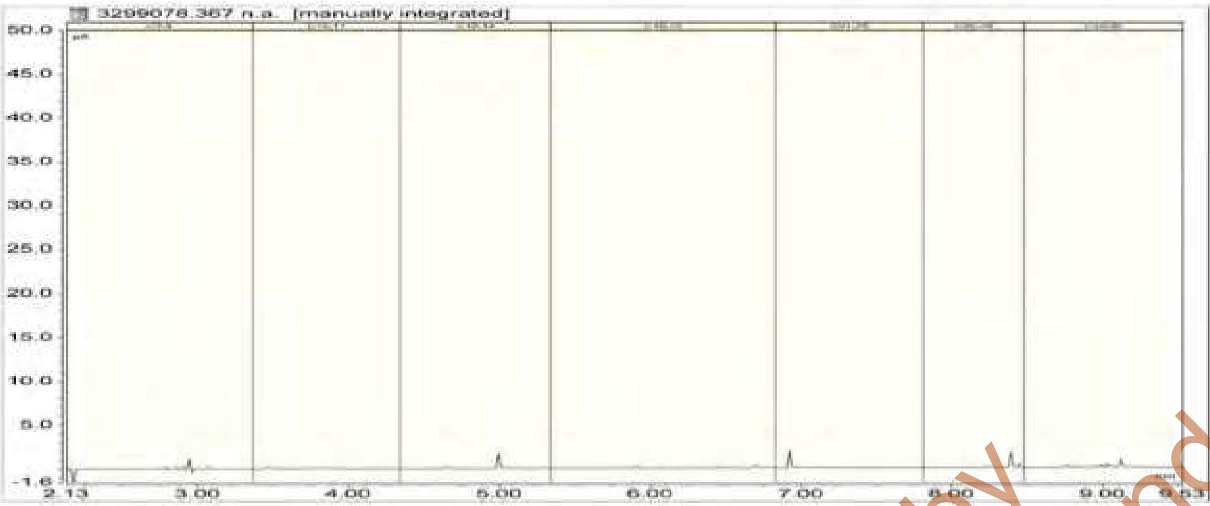
3299078.359
STR SED 03 0.3 23-Jun-2023
Client Chromatogram for TPH by FID



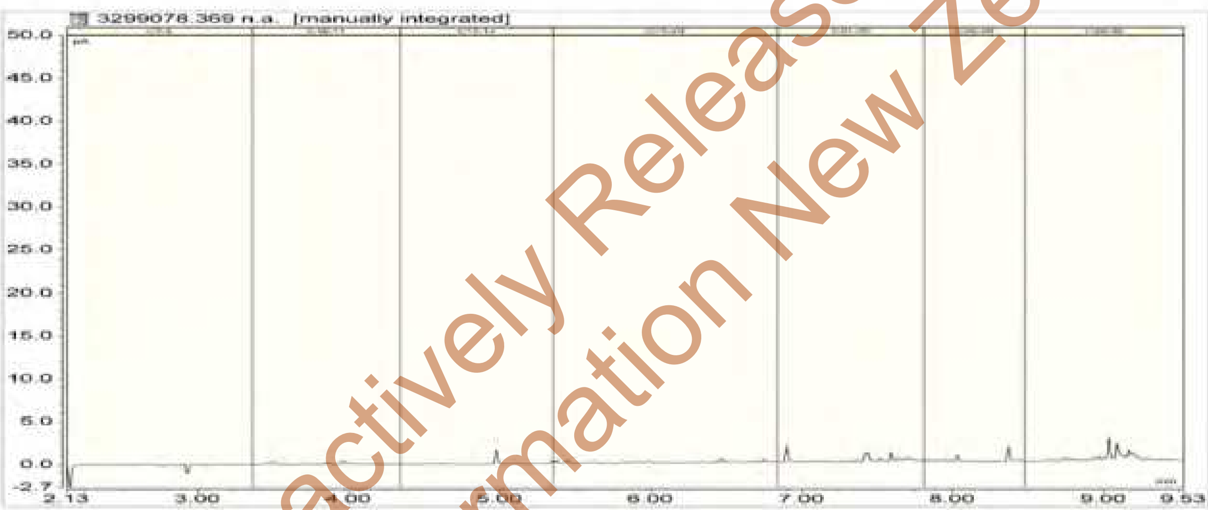
3299078.360
STR SED 03 0.05 23-Jun-2023
Client Chromatogram for TPH by FID



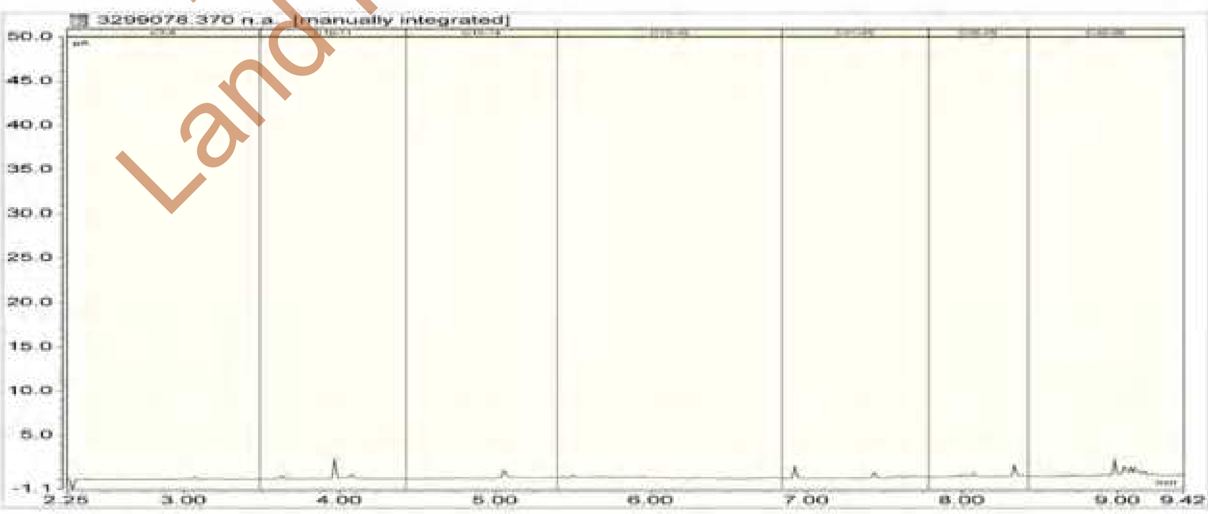
3299078.367
HSP SED 03 0.3 23-Jun-2023
Client Chromatogram for TPH by FID



3299078.369
HSP SED 04 0.3 23-Jun-2023
Client Chromatogram for TPH by FID



3299078.370
HSP SED 04 0.05 23-Jun-2023
Client Chromatogram for TPH by FID



Analyst's Comments

It has been noted that the System Monitoring Compound 2,4,6-tribromophenol in the SVOC analysis on sample 3299078.174, had a lower than expected recovery at 36%. Therefore Pentachlorophenol may be underestimated.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-2, 4-5, 7-8, 10-11, 13-14, 16-17, 19-20, 22-23, 25-26, 28-29, 31-32, 34-35, 37-40, 42-43, 45-46, 48-51, 82, 103, 109, 133-134, 136-137, 139-140, 142-143, 165-166, 168-169, 171-172, 174-175, 177-180, 182-183, 185-187, 190-191, 193, 196-197, 199-200, 202-203, 205-206, 208, 211-212, 214, 217, 219-220, 222, 225-232, 234-235, 237, 239, 241, 251-252, 254-255, 257-258, 260-261, 263-264, 266-268, 270-271, 273-275, 284-285, 287-288, 290-291, 303-304, 306, 309-310, 312, 315-316, 318-319, 321-322, 324-325, 327-328, 330, 332, 334-336, 338-372, 384-385, 387, 391-392, 394-396, 401
Soil Prep Dry & Sieve for Agriculture	Air dried at 35°C and sieved, <2mm fraction.	-	1, 13, 22, 37-38, 133, 199, 251, 257, 266, 273

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Soil Prep Dry for Organics,Trace*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-2, 4-5, 7-8, 10-11, 13-14, 16-17, 19-20, 22-23, 25-26, 28-29, 31-32, 34-35, 37-39, 42-43, 45, 48-50, 82, 103, 109, 179-180, 182, 219-220, 237, 239, 241, 273-275, 339-372, 401
Total of Reported PAHs in Soil	Sonication extraction, GC-MS/MS analysis. In-house based on US EPA 8270.	0.03 mg/kg dry wt	82, 245-246, 248-249, 276-285, 330, 336, 373
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	1-2, 4-5, 7-8, 10-11, 13-14, 16-17, 19-20, 22-23, 25-26, 28-29, 31-32, 34-35, 37-39, 42-43, 45, 48-50, 82, 103, 109, 133-134, 136-137, 139-140, 165-166, 168-169, 171-172, 174-175, 177-180, 182, 219-220, 222, 225-232, 234-235, 237, 239, 241, 245-246, 248-249, 266-268, 270-271, 273-285, 287-288, 290-293, 297-299, 302, 330, 336, 339-373, 384, 387, 391-392, 394-396, 401

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Composite Environmental Solid Samples*	Individual sample fractions mixed together to form a composite fraction.	-	52-53, 55-56, 58-59, 61-62, 64, 67-68, 70, 73-74, 76-77, 82-83, 85-86, 88-89, 91-92, 94-95, 97, 100-101, 106-107, 110, 112-113, 115-116, 118, 121-122, 124-125, 127-128, 130-131, 156-157, 159-160, 162-163

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Total Recoverable Beryllium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.2 mg/kg dry wt	1-2, 4-5, 7-8, 10-11, 13-14, 16-17, 19-20, 22-23, 25-26, 28-29, 31-32, 34-35, 37-40, 42-43, 45-46, 48-51, 82, 103, 109, 133-134, 136-137, 139-140, 142-143, 165-166, 168-169, 171-172, 174-175, 177-180, 182-183, 185-187, 190-191, 193, 196-197, 199-200, 202-203, 205-206, 208, 211-212, 214, 217, 219-220, 222, 225-232, 234-235, 237, 239, 241, 251-252, 254-255, 257-258, 260-261, 263-264, 266-268, 270-271, 273-275, 284-285, 287-288, 290-291, 303-304, 306, 309-310, 312, 315-316, 318-319, 321-322, 324-325, 327-328, 330, 332, 334-336, 338-372, 384-385, 387, 391-392, 394-396, 401
pH*	1:2 (v/v) soil : water slurry followed by potentiometric determination of pH. In-house.	0.1 pH Units	1, 13, 22, 37-38, 133, 199, 251, 257, 266, 273

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	BaP Potency Equivalence calculated from; Benzo(a)anthracene x 0.1 + Benzo(b)fluoranthene x 0.1 + Benzo(j)fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Benzo(a)pyrene x 1.0 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Fluoranthene x 0.01 + Indeno(1,2,3-c,d)pyrene x 0.1. Ministry for the Environment. 2011. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.	0.024 mg/kg dry wt	82, 245-246, 248-249, 276-285, 330, 336, 373
Benzo[a]pyrene Toxic Equivalence (TEF)*	Benzo[a]pyrene Toxic Equivalence (TEF) calculated from; Benzo[a]pyrene x 1.0 + Benzo(a)anthracene x 0.1 + Benzo(b)fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Indeno(1,2,3-c,d)pyrene x 0.1. Guidelines for assessing and managing contaminated gasworks sites in New Zealand (GMG) (MfE, 1997).	0.024 mg/kg dry wt	82, 245-246, 248-249, 276-285, 330, 336, 373
TPH Oil Industry Profile + PAHscreen	Sonication extraction, GC-FID and GC-MS/MS analysis. Tested on as received sample. In-house based on US EPA 8015 and US EPA 8270.	0.010 - 70 mg/kg dry wt	245-246, 248-249, 284-285, 336

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
8 Heavy metals plus Boron	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 20 mg/kg dry wt	1-2, 4-5, 7-8, 10-11, 13-14, 16-17, 19-20, 22-23, 25-26, 28-29, 31-32, 34-35, 37-40, 42-43, 45-46, 48-51, 82, 103, 109, 133-134, 136-137, 139-140, 142-143, 165-166, 168-169, 171-172, 174-175, 179-180, 182-183, 185-187, 190-191, 193, 196-197, 199-200, 202-203, 205-206, 208, 211-212, 214, 217, 219-220, 222, 225-232, 234-235, 237, 239, 241, 251-252, 254-255, 257-258, 260-261, 263-264, 266-268, 270-271, 273-275, 284-285, 287-288, 290-291, 303-304, 306, 309-310, 312, 315-316, 318-319, 321-322, 324-325, 327-328, 330, 332, 334-336, 338-354, 384-385, 387, 391-392, 394-396

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Acid Herbicides Screen in Soil by LCMSMS	Solvent extraction, LC-MS/MS analysis. Tested on dried sample. In-house.	0.2 - 0.4 mg/kg dry wt	1-2, 4-5, 7-8, 10-11, 13-14, 16-17, 19-20, 22-23, 25-26, 28-29, 31-32, 34-35, 37-39, 42-43, 45, 48-50, 82, 103, 109, 179-180, 182, 219-220, 237, 239, 241, 273-275, 339-372, 401
BTEX in Soil by Headspace GC-MS	Solvent extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.05 - 0.10 mg/kg dry wt	276-283, 373
Organochlorine/nitro&phosphorus Pest.s Screen in Soils, GCMS	Sonication extraction, GC-ECD and GC-MS analysis. In-house based on US EPA 8081 and US EPA 8270.	0.010 - 0.2 mg/kg dry wt	1-2, 4-5, 7-8, 10-11, 13-14, 16-17, 19-20, 22-23, 25-26, 28-29, 31-32, 34-35, 37-39, 42-43, 45, 48-50, 82, 103, 109, 179-180, 182, 219-220, 237, 239, 241, 273-275, 339-354
Polycyclic Aromatic Hydrocarbons Screening in Soil*	Sonication extraction, GC-MS/MS analysis. Tested on as received sample. In-house based on US EPA 8270.	0.010 - 0.05 mg/kg dry wt	82, 276-283, 330, 373
Polychlorinated Biphenyls Screening in Soil*	Sonication extraction, GC-MS analysis. Tested on dried sample. In-house based on US EPA 8270.	0.00000020 - 0.2 mg/kg dry wt	384-385, 387, 391-392, 394-396
Semivolatile Organic Compounds Screening in Soil by GC-MS	Sonication extraction, GC-MS analysis. Tested on as received sample. In-house based on US EPA 8270.	0.024 - 30 mg/kg dry wt	133-134, 136-137, 139-140, 165-166, 168-169, 171-172, 174-175, 177-178, 222, 225-232, 234-235, 266-268, 270-271, 355-372, 401

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Volatile Organic Compounds Screening in Soil by Headspace GC-MS	Sonication extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.13 - 30 mg/kg dry wt	165, 168, 171, 174, 225-226, 231-232, 245-246, 248-249, 284-285, 287-288, 290-293, 297-299, 302
Total Petroleum Hydrocarbons in Soil			
Client Chromatogram for TPH by FID	Small peaks associated with QC compounds may be visible in chromatograms with low TPH concentrations. QC peaks are as follows: one peak in the C12 - 14 band, the C21 - 25 band and the C30 - 36 band. All QC peaks are corrected for in the reported TPH concentrations.	-	225-226, 266-267, 270, 276, 359-360, 367, 369-370
C7 - C9	Solvent extraction, GC-FID analysis. In-house based on US EPA 8015.	20 mg/kg dry wt	225-226, 245-246, 248-249, 266-268, 270-271, 276-285, 336, 355-373, 384, 387, 391-392, 394-396, 401
C10 - C14	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	20 mg/kg dry wt	225-226, 245-246, 248-249, 266-268, 270-271, 276-285, 336, 355-373, 384, 387, 391-392, 394-396, 401
C15 - C36	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	40 mg/kg dry wt	225-226, 245-246, 248-249, 266-268, 270-271, 276-285, 336, 355-373, 384, 387, 391-392, 394-396, 401
Total hydrocarbons (C7 - C36)	Calculation: Sum of carbon bands from C7 to C36. In-house based on US EPA 8015.	70 mg/kg dry wt	225-226, 245-246, 248-249, 266-268, 270-271, 276-285, 336, 355-373, 384, 387, 391-392, 394-396, 401

Sample Type: Sediment			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Individual Tests			
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%.	-	177-178, 355-372, 401

Sample Type: Sediment			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Non-Routine Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	177-178, 355-372, 401
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	177-178, 355-372, 401
Total Recoverable Boron	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	20 mg/kg dry wt	177-178, 355-372, 401
pH	1:2 v/v soil:water slurry after 16±2hrs, pH meter. APHA 4500-H$^+$ B 23rd ed. 2017.	0.1 pH Units	177-178, 355-372, 401
Total Organic Carbon*	Acid pretreatment to remove carbonates present followed by Catalytic Combustion (O2), separation, Thermal Conductivity Detector [Elementar Analyser].	0.05 g/100g dry wt	177-178, 355-372, 401
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	0.10 - 4 mg/kg dry wt	177-178, 355-372, 401
Organochlorine/nitro&phosphorus Pest.s Trace in Soils, GC-MS	Sonication extraction, GC-ECD and GC-MS analysis. In-house based on US EPA 8081 and US EPA 8270.	0.0010 - 0.03 mg/kg dry wt	355-372, 401
Volatile Organic Compounds Trace in Soil by Headspace GC-MS	Sonication extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.010 - 3 mg/kg dry wt	177-178, 355-372, 401

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 13-Jun-2023 and 24-Jul-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Kim Harrison MSc
Client Services Manager - Environmental

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3318172 SPv1
Contact:	Adam Gray	**Date Received:**	07-Jul-2023
	C/- GHD Limited	**Date Reported:**	21-Jul-2023
	PO Box 1746	**Quote No:**	124299
	Wellington 6140	**Order No:**	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:	B67 HA01 0.10 [3299078.227]	B67 HA02 0.10 [3299078.229]
Lab Number:	3318172.1	3318172.2
Dioxins‡	See attached report	See attached report

Analyst's Comments

‡ Analysis subcontracted to an external provider. Refer to the Summary of Methods section for more details.

Appendix No.1 - 3318172 - Asurequality - Dioxins

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Dioxins (Solid)	High resolution GC-MS. Subcontracted to AsureQuality, Lower Hutt. [See attached report].	-	1-2

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 21-Jul-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Ara Heron BSc (Tech)
Client Services Manager - Environmental

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PO Box 31242 | Lower Hutt 5040 | Wellington | New Zealand
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Certificate of Analysis

Submission Reference: EnvSubAQ_LH 918
Final Report
Pre-registration ID: aRd-Qxk-fUH
PO Number: 159907

Hill Subcontracting
Hill Laboratories- Parent
Private Bag 3205
Hamilton 3240
New Zealand

Report Issued: 20-Jul-2023 **AsureQuality Reference: 23-185534** **Sample(s) Received:** 08-Jul-2023 07:50

Testing Period: 08-Jul-2023 to 20-Jul-2023
Date of analysis is available on request.

Results

The tests were performed on the samples as received.

Customer Sample Name: B67 HA01 0.10 [3299078.227] **Lab ID:** 23-185534-1
Sample Description: 3318172.1
Sample Condition: Acceptable **Sampled Date**: 07-Jul-2023

Test	Result	Unit	Method Reference
Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans (PCDD/Fs)			
2378-TCDF	<2.0	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
2378-TCDD	<2.0	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
12378-PeCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
23478-PeCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
12378-PeCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123478-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123678-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
234678-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123789-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123478-HxCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123678-HxCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123789-HxCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
1234678-HpCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
1234789-HpCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
1234678-HpCDD	<20	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
OCDF	<20	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
OCDD	<100	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F WHO-TEQ - Lowerbound	0.00	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F WHO-TEQ - Mediumbound	11	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F WHO-TEQ - Upperbound	23	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F I-TEQ - Lowerbound	0.00	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F I-TEQ - Mediumbound	10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F I-TEQ - Upperbound	20	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Clean-Up Standards			
$^{37}Cl_4$ 2378-TCDD	72	%	AsureQuality Method (GC-MS/MS)

AsureQuality Reference: 23-185534 **Report Issued:** 20-Jul-2023

Test	Result	Unit	Method Reference
Internal Standards			
$^{13}C_{12}$ 2378-TCDF	71	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 2378-TCDD	74	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 12378-PeCDF	72	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 23478-PeCDF	93	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 12378-PeCDD	80	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123478-HxCDF	57	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123678-HxCDF	65	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 234678-HxCDF	90	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123789-HxCDF	73	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123478-HxCDD	62	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123678-HxCDD	73	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 1234678-HpCDF	56	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 1234789-HpCDF	58	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 1234678-HpCDD	81	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ OCDD	50	%	AsureQuality Method (GC-MS/MS)

Customer Sample Name: B67 HA02 0.10 [3299078.229] **Lab ID:** 23-185534-2

Sample Description: 3318172.2

Sample Condition: Acceptable **Sampled Date**: 07-Jul-2023

Test	Result	Unit	Method Reference
Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans (PCDD/Fs)			
2378-TCDF	<5.0	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
2378-TCDD	<5.0	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
12378-PeCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
23478-PeCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
12378-PeCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123478-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123678-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
234678-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123789-HxCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123478-HxCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123678-HxCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
123789-HxCDD	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
1234678-HpCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
1234789-HpCDF	<10	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
1234678-HpCDD	<50	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
OCDF	<20	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
OCDD	<200	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F WHO-TEQ - Lowerbound	0.00	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F WHO-TEQ - Mediumbound	13	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F WHO-TEQ - Upperbound	27	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F I-TEQ - Lowerbound	0.00	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F I-TEQ - Mediumbound	12	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Total PCDD/F I-TEQ - Upperbound	24	ng/kg (dry weight)	AsureQuality Method (GC-MS/MS)
Clean-Up Standards			
$^{37}Cl_4$ 2378-TCDD	16 (R)	%	AsureQuality Method (GC-MS/MS)
Internal Standards			
$^{13}C_{12}$ 2378-TCDF	12 (R)	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 2378-TCDD	16 (R)	%	AsureQuality Method (GC-MS/MS)

AsureQuality Reference: 23-185534 **Report Issued:** 20-Jul-2023

Test	Result	Unit	Method Reference
$^{13}C_{12}$ 12378-PeCDF	47	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 23478-PeCDF	65	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 12378-PeCDD	62	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123478-HxCDF	52	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123678-HxCDF	53	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 234678-HxCDF	102	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123789-HxCDF	77	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123478-HxCDD	70	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 123678-HxCDD	67	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 1234678-HpCDF	46	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 1234789-HpCDF	56	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ 1234678-HpCDD	65	%	AsureQuality Method (GC-MS/MS)
$^{13}C_{12}$ OCDD	71	%	AsureQuality Method (GC-MS/MS)

R = Recovery outside method limits

Analysis Summary

Wellington Laboratory

Analysis	Method	Accreditation	Authorised by
Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans (PCDD/Fs)			
DX-DIOX06, 01-DEFAULT	AsureQuality Method (GC-MS/MS)	IANZ	Phil Bridgen

The total toxic equivalence (TEQ) is calculated for each sample using both WHO toxic equivalency factors (WHO-TEFs; Van den Berg et al., 2005) and international toxic equivalency factors (I-TEFs; Kutz et al., 1990).

Lowerbound concept uses zero for the contribution of each non-quantified analyte. Mediumbound concept uses half of the reporting limit for the contribution of each non-quantified analyte. Upperbound concept uses the reporting limit for the contribution for each non-quantified analyte.

Results that are prefixed with '<' indicate the lowest level at which the analyte can be reported, and that in this case the analyte was not observed above this limit.

Phil Bridgen
Senior Scientist

Accreditation

Appendix

Analyte LOR Summary

Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans (PCDD/Fs) - AsureQuality Method (GC-MS/MS)

Analyte	LOR
2378-TCDF	2.0 ng/kg (dry weight)
2378-TCDD	2.0 ng/kg (dry weight)
12378-PeCDF	10 ng/kg (dry weight)
23478-PeCDF	10 ng/kg (dry weight)
12378-PeCDD	10 ng/kg (dry weight)
123478-HxCDF	10 ng/kg (dry weight)
123678-HxCDF	10 ng/kg (dry weight)
234678-HxCDF	10 ng/kg (dry weight)
123789-HxCDF	10 ng/kg (dry weight)
123478-HxCDD	10 ng/kg (dry weight)
123678-HxCDD	10 ng/kg (dry weight)
123789-HxCDD	10 ng/kg (dry weight)
1234678-HpCDF	10 ng/kg (dry weight)
1234789-HpCDF	10 ng/kg (dry weight)
1234678-HpCDD	10 ng/kg (dry weight)
OCDF	20 ng/kg (dry weight)
OCDD	20 ng/kg (dry weight)

Analyte Definitions

Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans (PCDD/Fs) - AsureQuality Method (GC-MS/MS)

Analyte	Full Name
2378-TCDF	2,3,7,8-Tetrachlorodibenzofuran
2378-TCDD	2,3,7,8-Tetrachlorodibenzodioxin
12378-PeCDF	1,2,3,7,8-Pentachlorodibenzofuran
23478-PeCDF	2,3,4,7,8-Pentachlorodibenzofuran
12378-PeCDD	1,2,3,7,8-Pentachlorodibenzodioxin
123478-HxCDF	1,2,3,4,7,8-Hexachlorodibenzofuran
123678-HxCDF	1,2,3,6,7,8-Hexachlorodibenzofuran
234678-HxCDF	2,3,4,6,7,8-Hexachlorodibenzofuran
123789-HxCDF	1,2,3,7,8,9-Hexachlorodibenzofuran
123478-HxCDD	1,2,3,4,7,8-Hexachlorodibenzodioxin
123678-HxCDD	1,2,3,6,7,8-Hexachlorodibenzodioxin
123789-HxCDD	1,2,3,7,8,9-Hexachlorodibenzodioxin
1234678-HpCDF	1,2,3,4,6,7,8-Heptachlorodibenzofuran
1234789-HpCDF	1,2,3,4,7,8,9-Heptachlorodibenzofuran
1234678-HpCDD	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
OCDF	Octachlorodibenzofuran
OCDD	Octachlorodibenzodioxin

LOR = Limit of Reporting LOD = Limit of Detection NR = Not Reportable

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Certificate of Analysis

SPv1

Client:	GHD Limited	**Lab No:**	3362681
Contact:	David Jackson	**Date Received:**	12-Sep-2023
	C/- GHD Limited	**Date Reported:**	27-Sep-2023
	PO Box 660	**Quote No:**	124299
	Waikato Mail Centre	**Order No:**	12559090
	Hamilton 3240	**Client Reference:**	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		SB08 TP01 0.2 12-Sep-2023	SB08 TP01 0.5 12-Sep-2023	B68 HA01 12-Sep-2023	WDH TP01 0.1 12-Sep-2023	WDH TP02 0.1 12-Sep-2023
Lab Number:		3362681.1	3362681.2	3362681.4	3362681.5	3362681.8
Individual Tests						
Dry Matter	g/100g as rcvd	69	65	19.6	-	-
Total Recoverable Beryllium	mg/kg dry wt	1.0	1.1	0.2	0.9	0.9
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	6	76	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	101	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	0.40	0.11	< 0.10
Total Recoverable Chromium	mg/kg dry wt	15	13	46	12	14
Total Recoverable Copper	mg/kg dry wt	54	27	151	35	25
Total Recoverable Lead	mg/kg dry wt	18.8	18.6	17.5	38	24
Total Recoverable Mercury	mg/kg dry wt	0.19	0.13	< 0.10	0.17	< 0.10
Total Recoverable Nickel	mg/kg dry wt	16	8	70	6	8
Total Recoverable Zinc	mg/kg dry wt	41	39	670	61	58
Polychlorinated Biphenyls Screening in Soil*						
PCB-18	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-28	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-31	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-44	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-49	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-52	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-60	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-77	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-81	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-86	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-101	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-105	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-110	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-114	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-118	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-121	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-123	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-126	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-128	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-138	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-141	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-149	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-151	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-153	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-156	mg/kg dry wt	< 0.010	< 0.010	-	-	-

Sample Type: Soil						
Sample Name:		SB08 TP01 0.2 12-Sep-2023	SB08 TP01 0.5 12-Sep-2023	B68 HA01 12-Sep-2023	WDH TP01 0.1 12-Sep-2023	WDH TP02 0.1 12-Sep-2023
Lab Number:		3362681.1	3362681.2	3362681.4	3362681.5	3362681.8
Polychlorinated Biphenyls Screening in Soil*						
PCB-157	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-159	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-167	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-169	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-170	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-180	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-189	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-194	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-206	mg/kg dry wt	< 0.010	< 0.010	-	-	-
PCB-209	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Mono-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.000003	< 0.000003	-	-	-
Non-Ortho PCB Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.0014	< 0.0014	-	-	-
Total PCB (Sum of 35 congeners)	mg/kg dry wt	< 0.4	< 0.4	-	-	-
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	-	-	< 1.6	-	-
Bis(2-chloroethyl)ether	mg/kg dry wt	-	-	< 1.6	-	-
Bis(2-chloroisopropyl)ether	mg/kg dry wt	-	-	< 1.6	-	-
4-Bromophenyl phenyl ether	mg/kg dry wt	-	-	< 1.6	-	-
4-Chlorophenyl phenyl ether	mg/kg dry wt	-	-	< 1.6	-	-
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	-	-	< 4	-	-
2,6-Dinitrotoluene	mg/kg dry wt	-	-	< 4	-	-
Nitrobenzene	mg/kg dry wt	-	-	< 1.6	-	-
N-Nitrosodi-n-propylamine	mg/kg dry wt	-	-	< 4	-	-
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	-	-	< 4	-	-
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	-	-	< 1.6	-	-
alpha-BHC	mg/kg dry wt	-	-	< 1.6	-	-
beta-BHC	mg/kg dry wt	-	-	< 1.6	-	-
delta-BHC	mg/kg dry wt	-	-	< 1.6	-	-
gamma-BHC (Lindane)	mg/kg dry wt	-	-	< 1.6	-	-
4,4'-DDD	mg/kg dry wt	-	-	< 1.6	-	-
4,4'-DDE	mg/kg dry wt	-	-	< 1.6	-	-
4,4'-DDT	mg/kg dry wt	-	-	< 4	-	-
Dieldrin	mg/kg dry wt	-	-	< 1.6	-	-
Endosulfan I	mg/kg dry wt	-	-	< 4	-	-
Endosulfan II	mg/kg dry wt	-	-	< 4	-	-
Endosulfan sulphate	mg/kg dry wt	-	-	< 4	-	-
Endrin	mg/kg dry wt	-	-	< 4	-	-
Endrin ketone	mg/kg dry wt	-	-	< 4	-	-
Heptachlor	mg/kg dry wt	-	-	< 1.6	-	-
Heptachlor epoxide	mg/kg dry wt	-	-	< 1.6	-	-
Hexachlorobenzene	mg/kg dry wt	-	-	< 1.6	-	-
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	-	-	< 0.8	-	-
Acenaphthylene	mg/kg dry wt	-	-	< 0.8	-	-
Anthracene	mg/kg dry wt	-	-	< 0.8	-	-
Benzo[a]anthracene	mg/kg dry wt	-	-	< 0.8	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	-	< 1.6	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	-	< 1.6	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	-	-	< 1.6	-	-

Sample Type: Soil						
	Sample Name:	SB08 TP01 0.2 12-Sep-2023	SB08 TP01 0.5 12-Sep-2023	B68 HA01 12-Sep-2023	WDH TP01 0.1 12-Sep-2023	WDH TP02 0.1 12-Sep-2023
	Lab Number:	3362681.1	3362681.2	3362681.4	3362681.5	3362681.8
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Benzo[k]fluoranthene	mg/kg dry wt	-	-	< 1.6	-	-
1&2-Chloronaphthalene	mg/kg dry wt	-	-	< 1.1	-	-
Chrysene	mg/kg dry wt	-	-	< 0.8	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	-	-	< 1.6	-	-
Fluoranthene	mg/kg dry wt	-	-	< 0.8	-	-
Fluorene	mg/kg dry wt	-	-	< 0.8	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	-	< 1.6	-	-
2-Methylnaphthalene	mg/kg dry wt	-	-	< 0.8	-	-
Naphthalene	mg/kg dry wt	-	-	< 0.8	-	-
Phenanthrene	mg/kg dry wt	-	-	< 0.8	-	-
Pyrene	mg/kg dry wt	-	-	< 0.8	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	-	< 3.7	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	-	< 3.6	-	-
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	-	-	< 5	-	-
2-Chlorophenol	mg/kg dry wt	-	-	< 1.6	-	-
2,4-Dichlorophenol	mg/kg dry wt	-	-	< 1.6	-	-
2,4-Dimethylphenol	mg/kg dry wt	-	-	< 3	-	-
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	-	-	< 4	-	-
2-Methylphenol (o-cresol)	mg/kg dry wt	-	-	< 1.6	-	-
2-Nitrophenol	mg/kg dry wt	-	-	< 5	-	-
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	< 40	-	-
Phenol	mg/kg dry wt	-	-	< 4	-	-
2,4,5-Trichlorophenol	mg/kg dry wt	-	-	< 4	-	-
2,4,6-Trichlorophenol	mg/kg dry wt	-	-	< 4	-	-
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	-	-	< 7	-	-
Butylbenzylphthalate	mg/kg dry wt	-	-	< 4	-	-
Di(2-ethylhexyl)adipate	mg/kg dry wt	-	-	< 1.6	-	-
Diethylphthalate	mg/kg dry wt	-	-	< 4	-	-
Dimethylphthalate	mg/kg dry wt	-	-	< 4	-	-
Di-n-butylphthalate	mg/kg dry wt	-	-	< 4	-	-
Di-n-octylphthalate	mg/kg dry wt	-	-	< 4	-	-
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	-	-	< 4	-	-
1,3-Dichlorobenzene	mg/kg dry wt	-	-	< 4	-	-
1,4-Dichlorobenzene	mg/kg dry wt	-	-	< 4	-	-
Hexachlorobutadiene	mg/kg dry wt	-	-	< 4	-	-
Hexachloroethane	mg/kg dry wt	-	-	< 4	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	< 1.6	-	-
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	-	-	< 16	-	-
Carbazole	mg/kg dry wt	-	-	< 1.6	-	-
Dibenzofuran	mg/kg dry wt	-	-	< 1.6	-	-
Isophorone	mg/kg dry wt	-	-	< 1.6	-	-
Total Petroleum Hydrocarbons in Soil						
C7 - C9	mg/kg dry wt	< 30	< 30	< 70	-	-
C10 - C14	mg/kg dry wt	< 20	< 20	< 60	-	-
C15 - C36	mg/kg dry wt	< 40	< 40	< 120	-	-
Total hydrocarbons (C7 - C36)	mg/kg dry wt	< 90	< 90	< 300	-	-

Sample Type: Soil						
Sample Name:		SB08 TP01 0.2 12-Sep-2023	SB08 TP01 0.5 12-Sep-2023	B68 HA01 12-Sep-2023	WDH TP01 0.1 12-Sep-2023	WDH TP02 0.1 12-Sep-2023
Lab Number:		3362681.1	3362681.2	3362681.4	3362681.5	3362681.8
BTEX in VOC Soils by Headspace GC-MS						
Benzene	mg/kg dry wt	-	-	< 1.8	-	-
Ethylbenzene	mg/kg dry wt	-	-	< 1.8	-	-
Toluene	mg/kg dry wt	-	-	< 1.8	-	-
m&p-Xylene	mg/kg dry wt	-	-	< 4	-	-
o-Xylene	mg/kg dry wt	-	-	< 1.8	-	-
Halogenated Aliphatics in VOC Soils by Headspace GC-MS						
Bromomethane (Methyl Bromide)	mg/kg dry wt	-	-	< 1.8	-	-
Carbon tetrachloride	mg/kg dry wt	-	-	< 1.8	-	-
Chloroethane	mg/kg dry wt	-	-	< 1.8	-	-
Chloromethane	mg/kg dry wt	-	-	< 1.8	-	-
1,2-Dibromo-3-chloropropane	mg/kg dry wt	-	-	< 1.8	-	-
1,2-Dibromoethane (ethylene dibromide, EDB)	mg/kg dry wt	-	-	< 1.8	-	-
Dibromomethane	mg/kg dry wt	-	-	< 1.8	-	-
1,3-Dichloropropane	mg/kg dry wt	-	-	< 1.8	-	-
Dichlorodifluoromethane	mg/kg dry wt	-	-	< 1.8	-	-
1,1-Dichloroethane	mg/kg dry wt	-	-	< 1.8	-	-
1,2-Dichloroethane	mg/kg dry wt	-	-	< 1.8	-	-
1,1-Dichloroethene	mg/kg dry wt	-	-	< 1.8	-	-
cis-1,2-Dichloroethene	mg/kg dry wt	-	-	< 1.8	-	-
trans-1,2-Dichloroethene	mg/kg dry wt	-	-	< 1.8	-	-
Dichloromethane (methylene chloride)	mg/kg dry wt	-	-	< 40	-	-
1,2-Dichloropropane	mg/kg dry wt	-	-	< 1.8	-	-
1,1-Dichloropropene	mg/kg dry wt	-	-	< 1.8	-	-
cis-1,3-Dichloropropene	mg/kg dry wt	-	-	< 1.8	-	-
trans-1,3-Dichloropropene	mg/kg dry wt	-	-	< 1.8	-	-
Hexachlorobutadiene	mg/kg dry wt	-	-	< 1.8	-	-
1,1,1,2-Tetrachloroethane	mg/kg dry wt	-	-	< 1.8	-	-
1,1,2,2-Tetrachloroethane	mg/kg dry wt	-	-	< 1.8	-	-
Tetrachloroethene (tetrachloroethylene)	mg/kg dry wt	-	-	< 1.8	-	-
1,1,1-Trichloroethane	mg/kg dry wt	-	-	< 1.8	-	-
1,1,2-Trichloroethane	mg/kg dry wt	-	-	< 1.8	-	-
Trichloroethene (trichloroethylene)	mg/kg dry wt	-	-	< 1.8	-	-
Trichlorofluoromethane	mg/kg dry wt	-	-	< 1.8	-	-
1,2,3-Trichloropropane	mg/kg dry wt	-	-	< 1.8	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	mg/kg dry wt	-	-	< 1.8	-	-
Vinyl chloride	mg/kg dry wt	-	-	< 1.8	-	-
Haloaromatics in VOC Soils by Headspace GC-MS						
Bromobenzene	mg/kg dry wt	-	-	< 1.8	-	-
1,3-Dichlorobenzene	mg/kg dry wt	-	-	< 1.8	-	-
4-Chlorotoluene	mg/kg dry wt	-	-	< 1.8	-	-
Chlorobenzene (monochlorobenzene)	mg/kg dry wt	-	-	< 1.8	-	-
1,2-Dichlorobenzene	mg/kg dry wt	-	-	< 1.8	-	-
1,4-Dichlorobenzene	mg/kg dry wt	-	-	< 1.8	-	-
2-Chlorotoluene	mg/kg dry wt	-	-	< 1.8	-	-
1,2,3-Trichlorobenzene	mg/kg dry wt	-	-	< 1.8	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	-	-	< 1.8	-	-
1,3,5-Trichlorobenzene	mg/kg dry wt	-	-	< 1.8	-	-
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
n-Butylbenzene	mg/kg dry wt	-	-	< 1.8	-	-
tert-Butylbenzene	mg/kg dry wt	-	-	< 1.8	-	-

Sample Type: Soil						
Sample Name:		SB08 TP01 0.2 12-Sep-2023	SB08 TP01 0.5 12-Sep-2023	B68 HA01 12-Sep-2023	WDH TP01 0.1 12-Sep-2023	WDH TP02 0.1 12-Sep-2023
Lab Number:		3362681.1	3362681.2	3362681.4	3362681.5	3362681.8
Monoaromatic Hydrocarbons in VOC Soils by Headspace GC-MS						
Isopropylbenzene (Cumene)	mg/kg dry wt	-	-	< 1.8	-	-
4-Isopropyltoluene (p-Cymene)	mg/kg dry wt	-	-	< 1.8	-	-
n-Propylbenzene	mg/kg dry wt	-	-	< 1.8	-	-
sec-Butylbenzene	mg/kg dry wt	-	-	< 1.8	-	-
Styrene	mg/kg dry wt	-	-	< 1.8	-	-
1,2,4-Trimethylbenzene	mg/kg dry wt	-	-	< 1.8	-	-
1,3,5-Trimethylbenzene	mg/kg dry wt	-	-	< 1.8	-	-
Ketones in VOC Soils by Headspace GC-MS						
2-Butanone (MEK)	mg/kg dry wt	-	-	< 400	-	-
4-Methylpentan-2-one (MIBK)	mg/kg dry wt	-	-	< 80	-	-
Acetone	mg/kg dry wt	-	-	< 400	-	-
Methyl tert-butylether (MTBE)	mg/kg dry wt	-	-	< 1.8	-	-
Trihalomethanes in VOC Soils by Headspace GC-MS						
Bromodichloromethane	mg/kg dry wt	-	-	< 1.8	-	-
Bromoform (tribromomethane)	mg/kg dry wt	-	-	< 1.8	-	-
Chloroform (Trichloromethane)	mg/kg dry wt	-	-	< 1.8	-	-
Dibromochloromethane	mg/kg dry wt	-	-	< 1.8	-	-
Other VOC in Soils by Headspace GC-MS						
Carbon disulphide	mg/kg dry wt	-	-	< 0.4	-	-
Naphthalene	mg/kg dry wt	-	-	< 1.8	-	-

Sample Name:		WDH TP03 0.1 12-Sep-2023	WDH TP03 0.5 12-Sep-2023	WDG TP01 0.1 12-Sep-2023	WDG TP02 0.1 12-Sep-2023	WDG TP03 0.1 12-Sep-2023
Lab Number:		3362681.11	3362681.12	3362681.14	3362681.17	3362681.20
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	1.4	1.9	1.3	0.8	1.6
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	3	5	5	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.12	< 0.10	0.12	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	20	24	18	12	22
Total Recoverable Copper	mg/kg dry wt	38	101	47	21	61
Total Recoverable Lead	mg/kg dry wt	48	16.0	44	18.6	16.3
Total Recoverable Mercury	mg/kg dry wt	0.18	0.25	0.17	0.16	0.27
Total Recoverable Nickel	mg/kg dry wt	13	13	9	6	11
Total Recoverable Zinc	mg/kg dry wt	103	53	66	31	62

Sample Name:		WDG TP03 0.5 12-Sep-2023	WDF TP01 0.1 11-Sep-2023	WDF TP02 0.1 11-Sep-2023	WDF TP03 0.1 11-Sep-2023	WDF TP03 0.5 11-Sep-2023
Lab Number:		3362681.21	3362681.23	3362681.26	3362681.29	3362681.30
Individual Tests						
Total Recoverable Beryllium	mg/kg dry wt	1.8	1.0	1.3	2.2	2.3
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	3	5	4	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.11	0.15	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	25	14	18	27	26
Total Recoverable Copper	mg/kg dry wt	41	33	61	85	35
Total Recoverable Lead	mg/kg dry wt	16.4	33	320	19.5	20
Total Recoverable Mercury	mg/kg dry wt	0.35	0.17	0.23	0.27	0.12
Total Recoverable Nickel	mg/kg dry wt	9	8	9	11	10
Total Recoverable Zinc	mg/kg dry wt	58	56	91	47	53

Sample Name:		NW FILL TP01 0.1 11-Sep-2023	NW FILL TP01 0.5 11-Sep-2023	NW FILL TP02 0.1 11-Sep-2023	NW FILL TP03 0.1 11-Sep-2023	NW FILL TP03 0.5 11-Sep-2023
Lab Number:		3362681.32	3362681.33	3362681.35	3362681.38	3362681.39

Sample Type: Soil						
	Sample Name:	NW FILL TP01 0.1 11-Sep-2023	NW FILL TP01 0.5 11-Sep-2023	NW FILL TP02 0.1 11-Sep-2023	NW FILL TP03 0.1 11-Sep-2023	NW FILL TP03 0.5 11-Sep-2023
	Lab Number:	3362681.32	3362681.33	3362681.35	3362681.38	3362681.39
Individual Tests						
Dry Matter	g/100g as rcvd	60	64	68	64	70
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.8	0.8	1.0	0.6
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	5	4	4	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.18	< 0.10	0.22	0.34	< 0.10
Total Recoverable Chromium	mg/kg dry wt	10	12	8	8	12
Total Recoverable Copper	mg/kg dry wt	25	19	28	26	13
Total Recoverable Lead	mg/kg dry wt	13.6	15.3	15.0	12.4	14.4
Total Recoverable Mercury	mg/kg dry wt	0.19	0.12	0.15	0.17	0.12
Total Recoverable Nickel	mg/kg dry wt	5	6	4	4	5
Total Recoverable Zinc	mg/kg dry wt	43	31	71	50	26
Haloethers in SVOC Soil Samples by GC-MS						
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrogen containing compounds in SVOC Soil Samples by GC-MS						
2,4-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
Aldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
alpha-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
beta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
delta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dieldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2	< 2
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Endrin	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
Endrin ketone	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Heptachlor	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Acenaphthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		NW FILL TP01 0.1 11-Sep-2023	NW FILL TP01 0.5 11-Sep-2023	NW FILL TP02 0.1 11-Sep-2023	NW FILL TP03 0.1 11-Sep-2023	NW FILL TP03 0.5 11-Sep-2023
Lab Number:		3362681.32	3362681.33	3362681.35	3362681.38	3362681.39
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*						
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Phenols in SVOC Soil Samples by GC-MS						
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Plasticisers in SVOC Soil Samples by GC-MS						
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	< 5	< 5	< 5	< 5
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Other Halogenated compounds in SVOC Soil Samples by GC-MS						
1,2-Dichlorobenzene	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
1,3-Dichlorobenzene	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
1,4-Dichlorobenzene	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
Hexachlorobutadiene	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
Hexachloroethane	mg/kg dry wt	< 1.0	< 1.0	< 0.9	< 1.0	< 0.9
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Other compounds in SVOC Soil Samples by GC-MS						
Benzyl alcohol	mg/kg dry wt	< 10	< 10	< 10	< 10	< 10
Carbazole	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isophorone	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Sample Name:		NW FILL TP04 0.1 11-Sep-2023	DUP J1 12-Sep-2023	DUP J2 12-Sep-2023
Lab Number:		3362681.40	3362681.45	3362681.46
Individual Tests				
Dry Matter	g/100g as rcvd	65	64	84
Total Recoverable Beryllium	mg/kg dry wt	1.0	0.8	0.8
8 Heavy metals plus Boron				
Total Recoverable Arsenic	mg/kg dry wt	5	4	3
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.13	< 0.10	< 0.10

Sample Type: Soil				
Sample Name:		NW FILL TP04 0.1 11-Sep-2023	DUP J1 12-Sep-2023	DUP J2 12-Sep-2023
Lab Number:		3362681.40	3362681.45	3362681.46
8 Heavy metals plus Boron				
Total Recoverable Chromium	mg/kg dry wt	11	12	13
Total Recoverable Copper	mg/kg dry wt	19	19	25
Total Recoverable Lead	mg/kg dry wt	14.9	15.8	26
Total Recoverable Mercury	mg/kg dry wt	0.27	0.14	< 0.10
Total Recoverable Nickel	mg/kg dry wt	3	6	8
Total Recoverable Zinc	mg/kg dry wt	27	30	58
Polycyclic Aromatic Hydrocarbons Screening in Soil*				
Total of Reported PAHs in Soil	mg/kg dry wt	-	< 0.4	2.4
1-Methylnaphthalene	mg/kg dry wt	-	< 0.016	< 0.012
2-Methylnaphthalene	mg/kg dry wt	-	< 0.016	< 0.012
Acenaphthylene	mg/kg dry wt	-	< 0.016	< 0.012
Acenaphthene	mg/kg dry wt	-	< 0.016	< 0.012
Anthracene	mg/kg dry wt	-	< 0.016	0.021
Benzo[a]anthracene	mg/kg dry wt	-	< 0.016	0.20
Benzo[a]pyrene (BAP)	mg/kg dry wt	-	< 0.016	0.25
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	-	< 0.037	0.37
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	-	< 0.037	0.37
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	-	< 0.016	0.29
Benzo[e]pyrene	mg/kg dry wt	-	< 0.016	0.153
Benzo[g,h,i]perylene	mg/kg dry wt	-	< 0.016	0.179
Benzo[k]fluoranthene	mg/kg dry wt	-	< 0.016	0.131
Chrysene	mg/kg dry wt	-	< 0.016	0.165
Dibenzo[a,h]anthracene	mg/kg dry wt	-	< 0.016	0.034
Fluoranthene	mg/kg dry wt	-	< 0.016	0.36
Fluorene	mg/kg dry wt	-	< 0.016	< 0.012
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	-	< 0.016	0.178
Naphthalene	mg/kg dry wt	-	< 0.08	< 0.06
Perylene	mg/kg dry wt	-	< 0.016	0.057
Phenanthrene	mg/kg dry wt	-	< 0.016	0.047
Pyrene	mg/kg dry wt	-	< 0.016	0.35
Haloethers in SVOC Soil Samples by GC-MS				
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	-	-
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	-	-
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	-	-
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.5	-	-
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	-	-
Nitrogen containing compounds in SVOC Soil Samples by GC-MS				
2,4-Dinitrotoluene	mg/kg dry wt	< 1.0	-	-
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	-	-
Nitrobenzene	mg/kg dry wt	< 0.5	-	-
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 0.9	-	-
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.9	-	-
Organochlorine Pesticides in SVOC Soil Samples by GC-MS				
Aldrin	mg/kg dry wt	< 0.5	-	-
alpha-BHC	mg/kg dry wt	< 0.5	-	-
beta-BHC	mg/kg dry wt	< 0.5	-	-
delta-BHC	mg/kg dry wt	< 0.5	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	-	-
4,4'-DDD	mg/kg dry wt	< 0.5	-	-
4,4'-DDE	mg/kg dry wt	< 0.5	-	-
4,4'-DDT	mg/kg dry wt	< 1.0	-	-
Dieldrin	mg/kg dry wt	< 0.5	-	-

Sample Type: Soil				
	Sample Name:	NW FILL TP04 0.1 11-Sep-2023	DUP J1 12-Sep-2023	DUP J2 12-Sep-2023
	Lab Number:	3362681.40	3362681.45	3362681.46
Organochlorine Pesticides in SVOC Soil Samples by GC-MS				
Endosulfan I	mg/kg dry wt	< 1.0	-	-
Endosulfan II	mg/kg dry wt	< 2	-	-
Endosulfan sulphate	mg/kg dry wt	< 1.0	-	-
Endrin	mg/kg dry wt	< 0.9	-	-
Endrin ketone	mg/kg dry wt	< 1.0	-	-
Heptachlor	mg/kg dry wt	< 0.5	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.5	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.5	-	-
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*				
Acenaphthene	mg/kg dry wt	< 0.5	-	-
Acenaphthylene	mg/kg dry wt	< 0.5	-	-
Anthracene	mg/kg dry wt	< 0.5	-	-
Benzo[a]anthracene	mg/kg dry wt	< 0.5	-	-
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.5	-	-
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	-	-
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	-	-
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	-	-
Chrysene	mg/kg dry wt	< 0.5	-	-
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	-	-
Fluoranthene	mg/kg dry wt	< 0.5	-	-
Fluorene	mg/kg dry wt	< 0.5	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.5	-	-
2-Methylnaphthalene	mg/kg dry wt	< 0.5	-	-
Naphthalene	mg/kg dry wt	< 0.5	-	-
Phenanthrene	mg/kg dry wt	< 0.5	-	-
Pyrene	mg/kg dry wt	< 0.5	-	-
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	-	-
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	-	-
Phenols in SVOC Soil Samples by GC-MS				
4-Chloro-3-methylphenol	mg/kg dry wt	< 5	-	-
2-Chlorophenol	mg/kg dry wt	< 1.0	-	-
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	-	-
2,4-Dimethylphenol	mg/kg dry wt	< 3	-	-
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	-	-
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	-	-
2-Nitrophenol	mg/kg dry wt	< 5	-	-
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	-	-
Phenol	mg/kg dry wt	< 1.0	-	-
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	-	-
2,4,6-Trichlorophenol	mg/kg dry wt	< 1.0	-	-
Plasticisers in SVOC Soil Samples by GC-MS				
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	< 5	-	-
Butylbenzylphthalate	mg/kg dry wt	< 1.0	-	-
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	-	-
Diethylphthalate	mg/kg dry wt	< 1.0	-	-
Dimethylphthalate	mg/kg dry wt	< 1.0	-	-
Di-n-butylphthalate	mg/kg dry wt	< 1.0	-	-
Di-n-octylphthalate	mg/kg dry wt	< 1.0	-	-
Other Halogenated compounds in SVOC Soil Samples by GC-MS				
1,2-Dichlorobenzene	mg/kg dry wt	< 0.9	-	-
1,3-Dichlorobenzene	mg/kg dry wt	< 0.9	-	-

Sample Type: Soil				
	Sample Name:	NW FILL TP04 0.1 11-Sep-2023	DUP J1 12-Sep-2023	DUP J2 12-Sep-2023
	Lab Number:	3362681.40	3362681.45	3362681.46
Other Halogenated compounds in SVOC Soil Samples by GC-MS				
1,4-Dichlorobenzene	mg/kg dry wt	< 0.9	-	-
Hexachlorobutadiene	mg/kg dry wt	< 0.9	-	-
Hexachloroethane	mg/kg dry wt	< 0.9	-	-
1,2,4-Trichlorobenzene	mg/kg dry wt	< 0.5	-	-
Other compounds in SVOC Soil Samples by GC-MS				
Benzyl alcohol	mg/kg dry wt	< 10	-	-
Carbazole	mg/kg dry wt	< 0.5	-	-
Dibenzofuran	mg/kg dry wt	< 0.5	-	-
Isophorone	mg/kg dry wt	< 0.5	-	-

Sample Type: Aqueous			
	Sample Name:	A1 11-Sep-2023	A2 12-Sep-2023
	Lab Number:	3362681.43	3362681.44
Individual Tests			
Total Beryllium	g/m^3	< 0.00011	< 0.00011
Total Boron	g/m^3	< 0.0053	< 0.0053
Total Mercury	g/m^3	< 0.00008	< 0.00008
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn			
Total Arsenic	g/m^3	< 0.0011	< 0.0011
Total Cadmium	g/m^3	< 0.000053	< 0.000053
Total Chromium	g/m^3	< 0.00053	< 0.00053
Total Copper	g/m^3	< 0.00053	< 0.00053
Total Lead	g/m^3	< 0.00011	< 0.00011
Total Nickel	g/m^3	< 0.00053	< 0.00053
Total Zinc	g/m^3	< 0.0011	< 0.0011

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-2, 4-5, 8, 11-12, 14, 17, 20-21, 23, 26, 29-30, 32-33, 35, 38-40, 45-46
Total of Reported PAHs in Soil	Sonication extraction, GC-MS/MS analysis. In-house based on US EPA 8270.	0.03 mg/kg dry wt	45-46
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	1-2, 4, 32-33, 35, 38-40, 45-46
Total Recoverable Beryllium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.2 mg/kg dry wt	1-2, 4-5, 8, 11-12, 14, 17, 20-21, 23, 26, 29-30, 32-33, 35, 38-40, 45-46

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	BaP Potency Equivalence calculated from; Benzo(a)anthracene x 0.1 + Benzo(b)fluoranthene x 0.1 + Benzo(j)fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Benzo(a)pyrene x 1.0 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Fluoranthene x 0.01 + Indeno(1,2,3-c,d)pyrene x 0.1. Ministry for the Environment. 2011. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.	0.024 mg/kg dry wt	45-46
Benzo[a]pyrene Toxic Equivalence (TEF)*	Benzo[a]pyrene Toxic Equivalence (TEF) calculated from; Benzo[a]pyrene x 1.0 + Benzo(a)anthracene x 0.1 + Benzo(b) fluoranthene x 0.1 + Benzo(k)fluoranthene x 0.1 + Chrysene x 0.01 + Dibenzo(a,h)anthracene x 1.0 + Indeno(1,2,3-c,d)pyrene x 0.1. Guidelines for assessing and managing contaminated gasworks sites in New Zealand (GMG) (MfE, 1997).	0.024 mg/kg dry wt	45-46
8 Heavy metals plus Boron	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 20 mg/kg dry wt	1-2, 4-5, 8, 11-12, 14, 17, 20-21, 23, 26, 29-30, 32-33, 35, 38-40, 45-46
Polycyclic Aromatic Hydrocarbons Screening in Soil*	Sonication extraction, GC-MS/MS analysis. Tested on as received sample. In-house based on US EPA 8270.	0.010 - 0.05 mg/kg dry wt	45-46
Polychlorinated Biphenyls Screening in Soil*	Sonication extraction, GC-MS analysis. Tested on dried sample. In-house based on US EPA 8270.	0.00000020 - 0.2 mg/kg dry wt	1-2
Semivolatile Organic Compounds Screening in Soil by GC-MS	Sonication extraction, GC-MS analysis. Tested on as received sample. In-house based on US EPA 8270.	0.024 - 30 mg/kg dry wt	4, 32-33, 35, 38-40
Volatile Organic Compounds Screening in Soil by Headspace GC-MS	Sonication extraction, Headspace GC-MS analysis. Tested on as received sample. In-house based on US EPA 8260 and 5021.	0.13 - 30 mg/kg dry wt	4
Total Petroleum Hydrocarbons in Soil			
C7 - C9	Solvent extraction, GC-FID analysis. In-house based on US EPA 8015.	20 mg/kg dry wt	1-2, 4
C10 - C14	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	20 mg/kg dry wt	1-2, 4
C15 - C36	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	40 mg/kg dry wt	1-2, 4
Total hydrocarbons (C7 - C36)	Calculation: Sum of carbon bands from C7 to C36. In-house based on US EPA 8015.	70 mg/kg dry wt	1-2, 4

Sample Type: Aqueous			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Individual Tests			
Total Digestion	Nitric acid digestion. APHA 3030 E (modified) 23rd ed. 2017.	-	43-44
Total Beryllium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017 / US EPA 200.8.	0.00011 g/m^3	43-44
Total Boron	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017.	0.0053 g/m^3	43-44
Total Mercury	Bromine Oxidation followed by Atomic Fluorescence. US EPA Method 245.7, Feb 2005.	0.00008 g/m^3	43-44
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B (modified) 23rd ed. 2017 / US EPA 200.8.	0.000053 - 0.0011 g/m^3	43-44

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 15-Sep-2023 and 26-Sep-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Kim Harrison MSc
Client Services Manager - Environmental

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Certificate of Analysis

SPv2

Client:	GHD Limited	**Lab No:**	3221506
Contact:	David Jackson	**Date Received:**	30-Mar-2023
	C/- GHD Limited	**Date Reported:**	15-Dec-2023
	PO Box 660	**Quote No:**	122978
	Waikato Mail Centre	**Order No:**	12559090
	Hamilton 3240	**Client Reference:**	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		TRF TP01 0.1 29-Mar-2023	TRF TP01 0.5 29-Mar-2023	TRF TP02 0.1 29-Mar-2023	TRF TP03 0.1 29-Mar-2023	TRF TP03 0.5 29-Mar-2023
Lab Number:		3221506.8	3221506.9	3221506.10	3221506.12	3221506.13
Individual Tests						
Dry Matter	g/100g as rcvd	69	71	64	67	74
Total Recoverable Beryllium	mg/kg dry wt	0.7	1.1	0.9	1.0	0.8
8 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	< 2	4	6	< 2
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.12	< 0.10	0.16	0.21	< 0.10
Total Recoverable Chromium	mg/kg dry wt	6	7	7	7	6
Total Recoverable Copper	mg/kg dry wt	9	14	10	12	9
Total Recoverable Lead	mg/kg dry wt	18.2	14.3	21	18.5	15.9
Total Recoverable Mercury	mg/kg dry wt	0.13	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Nickel	mg/kg dry wt	3	4	3	3	3
Total Recoverable Zinc	mg/kg dry wt	43	35	78	56	34
Acid Herbicides Screen in Soil by LCMSMS						
Acifluorfen	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bentazone	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dicamba	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Haloxyfop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Picloram	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Sample Type: Soil						
Sample Name:		TRF TP01 0.1 29-Mar-2023	TRF TP01 0.5 29-Mar-2023	TRF TP02 0.1 29-Mar-2023	TRF TP03 0.1 29-Mar-2023	TRF TP03 0.5 29-Mar-2023
Lab Number:		3221506.8	3221506.9	3221506.10	3221506.12	3221506.13
Acid Herbicides Screen in Soil by LCMSMS						
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
alpha-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
beta-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
delta-BHC	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
gamma-BHC (Lindane)	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
cis-Chlordane	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
trans-Chlordane	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
2,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
4,4'-DDD	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
2,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
4,4'-DDE	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
2,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
4,4'-DDT	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Total DDT Isomers	mg/kg dry wt	< 0.09	< 0.09	< 0.10	< 0.09	< 0.08
Dieldrin	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Endosulfan I	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Endosulfan II	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Endosulfan sulphate	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Endrin	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Endrin aldehyde	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Endrin ketone	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Heptachlor	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Heptachlor epoxide	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Hexachlorobenzene	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Methoxychlor	mg/kg dry wt	< 0.015	< 0.014	< 0.016	< 0.015	< 0.013
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Acetochlor	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Alachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Atrazine	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Atrazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Atrazine-desisopropyl	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Azaconazole	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Azinphos-methyl	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Benalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Bitertanol	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Bromacil	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Bromopropylate	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Butachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Captan	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Carbaryl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Carbofuran	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Chlorfluazuron	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Chlorothalonil	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Chlorpyrifos	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Chlorpyrifos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Chlortoluron	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Cyanazine	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Cyfluthrin	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.08
Cyhalothrin	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Cypermethrin	mg/kg dry wt	< 0.17	< 0.17	< 0.18	< 0.18	< 0.16

Sample Type: Soil

Sample Name:		TRF TP01 0.1 29-Mar-2023	TRF TP01 0.5 29-Mar-2023	TRF TP02 0.1 29-Mar-2023	TRF TP03 0.1 29-Mar-2023	TRF TP03 0.5 29-Mar-2023
Lab Number:		3221506.8	3221506.9	3221506.10	3221506.12	3221506.13
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Deltamethrin (including Tralomethrin)	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Diazinon	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Dichlofluanid	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Dichloran	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	mg/kg dry wt	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Difenoconazole	mg/kg dry wt	< 0.10	< 0.10	< 0.11	< 0.11	< 0.09
Dimethoate	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Diphenylamine	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Diuron	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Fenpropimorph	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Fluazifop-butyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Fluometuron	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Flusilazole	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Fluvalinate	mg/kg dry wt	< 0.05	< 0.05	< 0.06	< 0.06	< 0.05
Furalaxyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Haloxyfop-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Hexaconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Hexazinone	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Kresoxim-methyl	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Linuron	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Malathion	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Metalaxyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Methamidophos	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Metolachlor	mg/kg dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Metribuzin	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Molinate	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Myclobutanil	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Naled	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Norflurazon	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Oxadiazon	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Oxyfluorfen	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Paclobutrazol	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Parathion-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Parathion-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Pendimethalin	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Permethrin	mg/kg dry wt	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pirimicarb	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Pirimiphos-methyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Prochloraz	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Procymidone	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Prometryn	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propachlor	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Propanil	mg/kg dry wt	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Propazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Propiconazole	mg/kg dry wt	< 0.05	< 0.05	< 0.06	< 0.06	< 0.05
Pyriproxyfen	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Quizalofop-ethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Simazine	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Simetryn	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Sulfentrazone	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	< 0.14	< 0.14	< 0.15	< 0.15	< 0.13
Tebuconazole	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07

Sample Type: Soil						
Sample Name:		TRF TP01 0.1 29-Mar-2023	TRF TP01 0.5 29-Mar-2023	TRF TP02 0.1 29-Mar-2023	TRF TP03 0.1 29-Mar-2023	TRF TP03 0.5 29-Mar-2023
Lab Number:		3221506.8	3221506.9	3221506.10	3221506.12	3221506.13
Organonitro&phosphorus Pesticides Screen in Soil by GCMS						
Terbacil	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Terbumeton	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Terbuthylazine	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Terbuthylazine-desethyl	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Terbutryn	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Thiabendazole	mg/kg dry wt	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thiobencarb	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Tolylfluanid	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Triazophos	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Trifluralin	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07
Vinclozolin	mg/kg dry wt	< 0.07	< 0.07	< 0.08	< 0.08	< 0.07

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	8-10, 12-13
Soil Prep Dry for Organics,Trace*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	8-10, 12-13
8 Heavy metals plus Boron	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 20 mg/kg dry wt	8-10, 12-13
Acid Herbicides Screen in Soil by LCMSMS	Solvent extraction, LC-MS/MS analysis. Tested on dried sample. In-house.	0.2 - 0.4 mg/kg dry wt	8-10, 12-13
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	8-10, 12-13
Organonitro&phosphorus Pesticides Screen in Soil by GCMS	Sonication extraction, GC-MS analysis. Tested on as received sample. In-house based on US EPA 8270.	0.02 - 0.2 mg/kg dry wt	8-10, 12-13
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	8-10, 12-13
Total Recoverable Beryllium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.2 mg/kg dry wt	8-10, 12-13

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 08-Dec-2023 and 15-Dec-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Ara Heron BSc (Tech)
Client Services Manager - Environmental

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3325652 SPv3
Contact:	Adam Gray C/- GHD Limited PO Box 1746 Wellington 6140	**Date Received:**	20-Jul-2023
		Date Reported:	10-Aug-2023
		Quote No:	124299
		Order No:	12559090
		Client Reference:	12559090 Tokanui
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		B19 TP01 0.1 [3299078.251] 19-Jun-2023	B26 TP01 0.1 [3299078.266] 19-Jun-2023	B26 TP02 0.1 [3299078.267] 19-Jun-2023	B34 TP 05 0.10 [3299078.13] 07-Jun-2023	B34 TP 06 0.10 [3299078.16] 07-Jun-2023
Lab Number:		3325652.1	3325652.2	3325652.3	3325652.4	3325652.5
Individual Tests						
SPLP Sample Weight	g	-	-	50	-	50
SPLP Extractant Type*		-	-	De-ionised Water, pH 5.8 +/- 0.4	-	De-ionised Water, pH 5.8 +/- 0.4
SPLP Final pH	pH Units	-	-	9.0	-	9.8
TCLP Weight of Sample Taken	g	101	50	-	50	-
TCLP Initial Sample pH	pH Units	6.9	7.7	-	6.3	-
TCLP Acid Adjusted Sample pH	pH Units	1.6	1.6	-	1.5	-
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	-	NaOH/Acetic acid at pH 4.93 +/- 0.05	-
TCLP Extraction Fluid pH	pH Units	4.9	4.9	-	4.9	-
TCLP Post Extraction Sample pH	pH Units	5.0	5.1	-	4.9	-

Sample Name:		B35 HA01 0.10 [3299078.179] 12-Jun-2023	B35 TP 03 0.10 [3299078.28] 07-Jun-2023	B59 TP04 0.10 [3299078.219] 14-Jun-2023	B66 HA01 [3299078.225] 14-Jun-2023	B66 HA02 [3299078.226] 14-Jun-2023
Lab Number:		3325652.6	3325652.7	3325652.8	3325652.9	3325652.10
Individual Tests						
SPLP Sample Weight	g	-	50	50	-	-
SPLP Extractant Type*		-	De-ionised Water, pH 5.8 +/- 0.4	De-ionised Water, pH 5.8 +/- 0.4	-	-
SPLP Final pH	pH Units	-	9.1	9.4	-	-
TCLP Weight of Sample Taken	g	50	-	-	100	100
TCLP Initial Sample pH	pH Units	7.5	-	-	8.5	7.2
TCLP Acid Adjusted Sample pH	pH Units	1.5	-	-	2.7	1.8
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	-	-	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	4.9	-	-	5.0	5.0
TCLP Post Extraction Sample pH	pH Units	5.0	-	-	6.6	5.4

Sample Name:		B67 HA02 0.10 [3299078.229] 14-Jun-2023	B71 TP02 0.10 [3299078.234] 14-Jun-2023	B73 TP01 0.1 [3299078.284] 20-Jun-2023	DIP HA02 0.10 [3299078.239] 14-Jun-2023	DS02 TP03 0.1 [3299078.309] 20-Jun-2023
Lab Number:		3325652.11	3325652.12	3325652.13	3325652.14	3325652.15
Individual Tests						
SPLP Sample Weight	g	-	101	100	-	-
SPLP Extractant Type*		-	De-ionised Water, pH 5.8 +/- 0.4	De-ionised Water, pH 5.8 +/- 0.4	-	-
SPLP Final pH	pH Units	-	9.4	7.1	-	-
TCLP Weight of Sample Taken	g	50	-	-	50	50
TCLP Initial Sample pH	pH Units	9.3	-	-	7.3	6.8
TCLP Acid Adjusted Sample pH	pH Units	1.7	-	-	1.8	1.6

Sample Type: Soil						
Sample Name:		B67 HA02 0.10 [3299078.229] 14-Jun-2023	B71 TP02 0.10 [3299078.234] 14-Jun-2023	B73 TP01 0.1 [3299078.284] 20-Jun-2023	DIP HA02 0.10 [3299078.239] 14-Jun-2023	DS02 TP03 0.1 [3299078.309] 20-Jun-2023
Lab Number:		3325652.11	3325652.12	3325652.13	3325652.14	3325652.15
Individual Tests						
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	-	-	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	5.0	-	-	4.9	5.0
TCLP Post Extraction Sample pH	pH Units	5.3	-	-	5.0	5.0

Sample Name:		DS02 TP03 0.5 [3299078.310] 20-Jun-2023	DS02 TP05 0.1 [3299078.315] 20-Jun-2023	DS03 TP03 0.1 [3299078.324] 21-Jun-2023	HSP SED 04 0.05 [3299078.370] 23-Jun-2023	HT TP 29 0.10 [3299078.133] 07-Jul-2023
Lab Number:		3325652.16	3325652.17	3325652.18	3325652.19	3325652.20
Individual Tests						
SPLP Sample Weight	g	-	50	-	100	-
SPLP Extractant Type*		-	De-ionised Water, pH 5.8 +/- 0.4	-	De-ionised Water, pH 5.8 +/- 0.4	-
SPLP Final pH	pH Units	-	8.5	-	8.2	-
TCLP Weight of Sample Taken	g	100	-	100	-	50
TCLP Initial Sample pH	pH Units	6.5	-	6.1	-	6.5
TCLP Acid Adjusted Sample pH	pH Units	1.5	-	1.5	-	1.5
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	-	NaOH/Acetic acid at pH 4.93 +/- 0.05	-	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	5.0	-	4.9	-	5.0
TCLP Post Extraction Sample pH	pH Units	5.0	-	4.9	-	5.0

Sample Name:		HT TP 30 0.10 [3299078.136] 07-Jul-2023	PAV TP01 0.10 [3299078.211] 12-Jun-2023	STR SED 03 0.3 [3299078.359] 23-Jun-2023	WWTP TP03 0.10 [3299078.171] 13-Jun-2023	B16 TP04 0.1 [3209697.9] 16-Mar-2023
Lab Number:		3325652.21	3325652.22	3325652.23	3325652.24	3325652.49
Individual Tests						
SPLP Sample Weight	g	-	50	100	-	50
SPLP Extractant Type*		-	De-ionised Water, pH 5.8 +/- 0.4	De-ionised Water, pH 5.8 +/- 0.4	-	De-ionised Water, pH 5.8 +/- 0.4
SPLP Final pH	pH Units	-	9.8	6.9	-	9.3
TCLP Weight of Sample Taken	g	50	-	-	100	-
TCLP Initial Sample pH	pH Units	6.7	-	-	6.3	-
TCLP Acid Adjusted Sample pH	pH Units	1.6	-	-	1.5	-
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	-	-	NaOH/Acetic acid at pH 4.93 +/- 0.05	-
TCLP Extraction Fluid pH	pH Units	5.0	-	-	5.0	-
TCLP Post Extraction Sample pH	pH Units	5.0	-	-	5.0	-

Sample Name:		B16 TP06 0.1 [3209697.12] 16-Mar-2023	B66 TP01 0.1 [3211645.29] 21-Mar-2023	CHP TP01 0.2 [3209697.5] 16-Mar-2023	CHP TP04 0.2 [3209697.7] 16-Mar-2023	DIP TP03 0.2 [3209697.25] 17-Mar-2023
Lab Number:		3325652.50	3325652.51	3325652.52	3325652.53	3325652.54
Individual Tests						
TCLP Weight of Sample Taken	g	50	100	50	100	50
TCLP Initial Sample pH	pH Units	9.1	6.9	6.8	7.1	8.7
TCLP Acid Adjusted Sample pH	pH Units	2.8	1.5	1.4	1.4	1.6
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	5.0	4.9	4.9	4.9	4.9
TCLP Post Extraction Sample pH	pH Units	6.5	4.9	4.9	4.9	5.1

Sample Name:		HSP SED 01 0.1 [3299078.363] 23-Jun-2023	HT TP25 0.2 [3209697.28] 17-Mar-2023
Lab Number:		3325652.55	3325652.56
Individual Tests			
SPLP Sample Weight	g	50	-
SPLP Extractant Type*		De-ionised Water, pH 5.8 +/- 0.4	-
SPLP Final pH	pH Units	9.2	-
TCLP Weight of Sample Taken	g	-	50

Sample Type: Soil			
	Sample Name:	HSP SED 01 0.1 [3299078.363] 23-Jun-2023	HT TP25 0.2 [3209697.28] 17-Mar-2023
	Lab Number:	3325652.55	3325652.56
Individual Tests			
TCLP Initial Sample pH	pH Units	-	7.7
TCLP Acid Adjusted Sample pH	pH Units	-	1.5
TCLP Extractant Type*		-	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	-	4.9
TCLP Post Extraction Sample pH	pH Units	-	5.0

Sample Type: Aqueous						
	Sample Name:	B19 TP01 0.1 [3299078.251] [TCLP Extract]	B26 TP01 0.1 [3299078.266] [TCLP Extract]	B26 TP02 0.1 [3299078.267] [SPLP Extract]	B34 TP 05 0.10 [3299078.13] [TCLP Extract]	B34 TP 06 0.10 [3299078.16] [SPLP Extract]
	Lab Number:	3325652.25	3325652.26	3325652.27	3325652.28	3325652.29
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m^3	-	-	0.0014	-	< 0.0011
Total Cadmium	g/m^3	-	-	< 0.000053	-	< 0.000053
Total Chromium	g/m^3	-	-	0.00081	-	0.00079
Total Copper	g/m^3	-	-	0.0064	-	0.0047
Total Lead	g/m^3	-	-	0.020	-	0.0079
Total Nickel	g/m^3	-	-	0.00074	-	0.00099
Total Zinc	g/m^3	-	-	0.0110 [#3]	-	0.0164 [#3]
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m^3	< 0.021	< 0.021	-	< 0.021	-
Total Cadmium	g/m^3	< 0.0011	0.0024	-	< 0.0011	-
Total Chromium	g/m^3	< 0.011	< 0.011	-	< 0.011	-
Total Copper	g/m^3	< 0.011	0.014	-	< 0.011	-
Total Lead	g/m^3	0.0086	0.134	-	< 0.0021	-
Total Nickel	g/m^3	< 0.011	< 0.011	-	< 0.011	-
Total Zinc	g/m^3	0.109 [#1]	0.44 [#2]	-	0.197 [#2]	-

	Sample Name:	B35 HA01 0.10 [3299078.179] [TCLP Extract]	B35 TP 03 0.10 [3299078.28] [SPLP Extract]	B59 TP04 0.10 [3299078.219] [SPLP Extract]	B66 HA01 [3299078.225] [TCLP Extract]	B66 HA02 [3299078.226] [TCLP Extract]
	Lab Number:	3325652.30	3325652.31	3325652.32	3325652.33	3325652.34
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m^3	-	0.0034	0.0031	-	-
Total Cadmium	g/m^3	-	< 0.000053	< 0.000053	-	-
Total Chromium	g/m^3	-	0.0021	0.00117	-	-
Total Copper	g/m^3	-	0.0045	0.00196	-	-
Total Lead	g/m^3	-	0.023	0.0046	-	-
Total Nickel	g/m^3	-	0.00076	0.00077	-	-
Total Zinc	g/m^3	-	0.026 [#3]	0.0120 [#3]	-	-
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m^3	< 0.021	-	-	< 0.021	< 0.021
Total Cadmium	g/m^3	< 0.0011	-	-	0.0019	0.0059
Total Chromium	g/m^3	< 0.011	-	-	< 0.011	< 0.011
Total Copper	g/m^3	< 0.011	-	-	0.075	0.081
Total Lead	g/m^3	0.032	-	-	0.066	0.080
Total Nickel	g/m^3	< 0.011	-	-	0.041	0.019
Total Zinc	g/m^3	0.40 [#2]	-	-	1.26	2.5
Polycyclic Aromatic Hydrocarbons Screening in Water, By Liq/Liq*						
Acenaphthene*	g/m^3	-	-	-	-	< 0.00010
Acenaphthylene*	g/m^3	-	-	-	-	< 0.00010
Anthracene*	g/m^3	-	-	-	-	< 0.00010
Benzo[a]anthracene*	g/m^3	-	-	-	-	< 0.00010
Benzo[a]pyrene (BAP)*	g/m^3	-	-	-	-	< 0.00010
Benzo[b]fluoranthene + Benzo[j] fluoranthene*	g/m^3	-	-	-	-	< 0.00010
Benzo[g,h,i]perylene*	g/m^3	-	-	-	-	< 0.00010
Benzo[k]fluoranthene*	g/m^3	-	-	-	-	< 0.00010

Sample Type: Aqueous						
Sample Name:		B35 HA01 0.10 [3299078.179] [TCLP Extract]	B35 TP 03 0.10 [3299078.28] [SPLP Extract]	B59 TP04 0.10 [3299078.219] [SPLP Extract]	B66 HA01 [3299078.225] [TCLP Extract]	B66 HA02 [3299078.226] [TCLP Extract]
Lab Number:		3325652.30	3325652.31	3325652.32	3325652.33	3325652.34
Polycyclic Aromatic Hydrocarbons Screening in Water, By Liq/Liq*						
Chrysene*	g/m^3	-	-	-	-	< 0.00010
Dibenzo[a,h]anthracene*	g/m^3	-	-	-	-	< 0.00010
Fluoranthene*	g/m^3	-	-	-	-	< 0.00010
Fluorene*	g/m^3	-	-	-	-	< 0.0002
Indeno(1,2,3-c,d)pyrene*	g/m^3	-	-	-	-	< 0.00010
Naphthalene*	g/m^3	-	-	-	-	< 0.0005
Phenanthrene*	g/m^3	-	-	-	-	< 0.0004
Pyrene*	g/m^3	-	-	-	-	< 0.0002

Sample Name:		B67 HA02 0.10 [3299078.229] [TCLP Extract]	B71 TP02 0.10 [3299078.234] [SPLP Extract]	B73 TP01 0.1 [3299078.284] [SPLP Extract]	DIP HA02 0.10 [3299078.239] [TCLP Extract]	DS02 TP03 0.1 [3299078.309] [TCLP Extract]
Lab Number:		3325652.35	3325652.36	3325652.37	3325652.38	3325652.39
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m^3	-	< 0.0011	< 0.0011	-	-
Total Cadmium	g/m^3	-	< 0.000053	< 0.000053	-	-
Total Chromium	g/m^3	-	0.00092	0.00088	-	-
Total Copper	g/m^3	-	0.0028	0.0022	-	-
Total Lead	g/m^3	-	0.00129	0.0034	-	-
Total Nickel	g/m^3	-	< 0.00053	< 0.00053	-	-
Total Zinc	g/m^3	-	0.0071 [#4]	0.0121 [#5]	-	-
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m^3	< 0.021	-	-	< 0.021	< 0.021
Total Cadmium	g/m^3	< 0.0011	-	-	< 0.0011	0.0022
Total Chromium	g/m^3	< 0.011	-	-	< 0.011	< 0.011
Total Copper	g/m^3	< 0.011	-	-	< 0.011	< 0.011
Total Lead	g/m^3	< 0.0021	-	-	< 0.0021	0.083
Total Nickel	g/m^3	< 0.011	-	-	< 0.011	< 0.011
Total Zinc	g/m^3	0.029	-	-	0.070	0.27
Polycyclic Aromatic Hydrocarbons Screening in Water, By Liq/Liq*						
Acenaphthene*	g/m^3	0.0174	-	-	-	-
Acenaphthylene*	g/m^3	0.00013	-	-	-	-
Anthracene*	g/m^3	0.0058	-	-	-	-
Benzo[a]anthracene*	g/m^3	0.00023	-	-	-	-
Benzo[a]pyrene (BAP)*	g/m^3	< 0.00010	-	-	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene*	g/m^3	< 0.00010	-	-	-	-
Benzo[g,h,i]perylene*	g/m^3	< 0.00010	-	-	-	-
Benzo[k]fluoranthene*	g/m^3	< 0.00010	-	-	-	-
Chrysene*	g/m^3	0.00021	-	-	-	-
Dibenzo[a,h]anthracene*	g/m^3	< 0.00010	-	-	-	-
Fluoranthene*	g/m^3	0.0059	-	-	-	-
Fluorene*	g/m^3	0.0101	-	-	-	-
Indeno(1,2,3-c,d)pyrene*	g/m^3	< 0.00010	-	-	-	-
Naphthalene*	g/m^3	0.0006	-	-	-	-
Phenanthrene*	g/m^3	0.025	-	-	-	-
Pyrene*	g/m^3	0.0043	-	-	-	-

Sample Name:		DS02 TP03 0.5 [3299078.310] [TCLP Extract]	DS02 TP05 0.1 [3299078.315] [SPLP Extract]	DS03 TP03 0.1 [3299078.324] [TCLP Extract]	HSP SED 04 0.05 [3299078.370] [SPLP Extract]	HT TP 29 0.10 [3299078.133] [TCLP Extract]
Lab Number:		3325652.40	3325652.41	3325652.42	3325652.43	3325652.44
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m^3	-	0.0012	-	0.0025	-
Total Cadmium	g/m^3	-	< 0.000053	-	< 0.000053	-
Total Chromium	g/m^3	-	0.0032	-	< 0.00053	-

Sample Type: Aqueous

Sample Name:		DS02 TP03 0.5 [3299078.310] [TCLP Extract]	DS02 TP05 0.1 [3299078.315] [SPLP Extract]	DS03 TP03 0.1 [3299078.324] [TCLP Extract]	HSP SED 04 0.05 [3299078.370] [SPLP Extract]	HT TP 29 0.10 [3299078.133] [TCLP Extract]
Lab Number:		3325652.40	3325652.41	3325652.42	3325652.43	3325652.44
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Copper	g/m³	-	0.0098	-	0.0023	-
Total Lead	g/m³	-	0.020	-	0.0020	-
Total Nickel	g/m³	-	0.00137	-	0.00056	-
Total Zinc	g/m³	-	0.023	-	0.0114 #5	-
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m³	< 0.021	-	< 0.021	-	< 0.021
Total Cadmium	g/m³	0.0017	-	0.0018	-	< 0.0011
Total Chromium	g/m³	< 0.011	-	< 0.011	-	< 0.011
Total Copper	g/m³	0.013	-	< 0.011	-	< 0.011
Total Lead	g/m³	0.035	-	0.116	-	0.082
Total Nickel	g/m³	< 0.011	-	< 0.011	-	< 0.011
Total Zinc	g/m³	1.42	-	0.33	-	0.28

Sample Name:		HT TP 30 0.10 [3299078.136] [TCLP Extract]	PAV TP01 0.10 [3299078.211] [SPLP Extract]	STR SED 03 0.3 [3299078.359] [SPLP Extract]	WWTP TP03 0.10 [3299078.171] [TCLP Extract]	B16 TP04 0.1 [3209697.9] [SPLP Extract]
Lab Number:		3325652.45	3325652.46	3325652.47	3325652.48	3325652.57
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m³	-	< 0.0011	0.0019	-	< 0.0011
Total Cadmium	g/m³	-	< 0.000053	< 0.000053	-	< 0.000053
Total Chromium	g/m³	-	0.00111	< 0.00053	-	0.00083
Total Copper	g/m³	-	0.0074	0.00093	-	0.0037
Total Lead	g/m³	-	0.0033	0.00110	-	0.0058
Total Nickel	g/m³	-	0.00078	< 0.00053	-	0.00138
Total Zinc	g/m³	-	0.0135 #6	0.0044 #7	-	0.0133
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m³	-	-	-	< 0.021	-
Total Cadmium	g/m³	-	-	-	< 0.0011	-
Total Chromium	g/m³	-	-	-	< 0.011	-
Total Copper	g/m³	-	-	-	< 0.011	-
Total Lead	g/m³	-	-	-	0.0112	-
Total Nickel	g/m³	-	-	-	< 0.011	-
Total Zinc	g/m³	-	-	-	0.104	-
Polycyclic Aromatic Hydrocarbons Screening in Water, By Liq/Liq*						
Acenaphthene*	g/m³	< 0.00010	-	-	-	-
Acenaphthylene*	g/m³	< 0.00010	-	-	-	-
Anthracene*	g/m³	< 0.00010	-	-	-	-
Benzo[a]anthracene*	g/m³	< 0.00010	-	-	-	-
Benzo[a]pyrene (BAP)*	g/m³	< 0.00010	-	-	-	-
Benzo[b]fluoranthene + Benzo[j] fluoranthene*	g/m³	< 0.00010	-	-	-	-
Benzo[g,h,i]perylene*	g/m³	< 0.00010	-	-	-	-
Benzo[k]fluoranthene*	g/m³	< 0.00010	-	-	-	-
Chrysene*	g/m³	< 0.00010	-	-	-	-
Dibenzo[a,h]anthracene*	g/m³	< 0.00010	-	-	-	-
Fluoranthene*	g/m³	< 0.00010	-	-	-	-
Fluorene*	g/m³	< 0.0002	-	-	-	-
Indeno(1,2,3-c,d)pyrene*	g/m³	< 0.00010	-	-	-	-
Naphthalene*	g/m³	< 0.0005	-	-	-	-
Phenanthrene*	g/m³	< 0.0004	-	-	-	-
Pyrene*	g/m³	< 0.0002	-	-	-	-

Sample Type: Aqueous						
Sample Name:		B16 TP06 0.1 [3209697.12] [TCLP Extract]	B66 TP01 0.1 [3211645.29] [TCLP Extract]	CHP TP01 0.2 [3209697.5] [TCLP Extract]	CHP TP04 0.2 [3209697.7] [TCLP Extract]	DIP TP03 0.2 [3209697.25] [TCLP Extract]
Lab Number:		3325652.58	3325652.59	3325652.60	3325652.61	3325652.62
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Arsenic	g/m³	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021
Total Cadmium	g/m³	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Chromium	g/m³	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011
Total Copper	g/m³	< 0.011	< 0.011	< 0.011	0.055	< 0.011
Total Lead	g/m³	< 0.0021	< 0.0021	0.24	0.0022	< 0.0021
Total Nickel	g/m³	0.017	< 0.011	< 0.011	< 0.011	< 0.011
Total Zinc	g/m³	0.034	0.034	0.057	0.68	0.049

Sample Name:		HSP SED 01 0.1 [3299078.363] [SPLP Extract]	HT TP25 0.2 [3209697.28] [TCLP Extract]
Lab Number:		3325652.63	3325652.64
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn			
Total Arsenic	g/m³	< 0.0011	-
Total Cadmium	g/m³	< 0.000053	-
Total Chromium	g/m³	< 0.00053	-
Total Copper	g/m³	0.0026	-
Total Lead	g/m³	0.0021	-
Total Nickel	g/m³	< 0.00053	-
Total Zinc	g/m³	0.0077	-
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn			
Total Arsenic	g/m³	-	< 0.021
Total Cadmium	g/m³	-	< 0.0011
Total Chromium	g/m³	-	< 0.011
Total Copper	g/m³	-	0.018
Total Lead	g/m³	-	< 0.0021
Total Nickel	g/m³	-	< 0.011
Total Zinc	g/m³	-	0.038

Analyst's Comments

#1 It should be noted that the blank TCLP extract contained an elevated level of zinc (0.027g/m3 c.f. detection limit of 0.00.021g/m3). This has been corrected for on the sample TCLP extract concentrations. This should be kept in mind when interpreting these results

#2 It should be noted that the blank TCLP extract contained an elevated level of zinc (0.028g/m3 c.f. detection limit of 0.00.021g/m3). This has been corrected for on the sample TCLP extract concentrations. This should be kept in mind when interpreting these results

#3 It should be noted that the blank SPLP extract contained an elevated level of zinc (0.0059g/m3 c.f. detection limit of 0.0011g/m3).This has not been corrected for on the sample SPLP extract concentration. This should be kept in mind when interpreting these results.

#4 It should be noted that the blank SPLP extract contained an elevated level of zinc (0.0016g/m3 c.f. detection limit of 0.0011g/m3).This has not been corrected for on the sample SPLP extract concentration. This should be kept in mind when interpreting these results.

#5 It should be noted that the blank SPLP extract contained an elevated level of zinc (0.0044g/m3 c.f. detection limit of 0.0011g/m3).This has not been corrected for on the sample SPLP extract concentration. This should be kept in mind when interpreting these results.

#6 It should be noted that the blank SPLP extract contained an elevated level of zinc (0.0027g/m3 c.f. detection limit of 0.0011g/m3).This has not been corrected for on the sample SPLP extract concentration. This should be kept in mind when interpreting these results.

#7 It should be noted that the blank SPLP extract contained an elevated level of zinc (0.0022g/m3 c.f. detection limit of 0.0011g/m3). This has been corrected for on the sample SPLP extract concentrations. This should be kept in mind when interpreting these results

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
SPLP Profile*	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1312.	-	3, 5, 7-8, 12-13, 17, 19, 22-23, 49, 55
TCLP Profile*	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1311.	-	1-2, 4, 6, 9-11, 14-16, 18, 20-21, 24, 50-54, 56
SPLP Profile			
SPLP Sample Weight	Gravimetric. US EPA 1312.	0.1 g	3, 5, 7-8, 12-13, 17, 19, 22-23, 49, 55
SPLP Extractant Type*	US EPA 1312 (Modified for New Zealand conditions to use De-ionised Water unless otherwise specified).	-	3, 5, 7-8, 12-13, 17, 19, 22-23, 49, 55
SPLP Final pH	pH meter. US EPA 1312.	0.1 pH Units	3, 5, 7-8, 12-13, 17, 19, 22-23, 49, 55
TCLP Profile			
TCLP Weight of Sample Taken	Gravimetric. US EPA 1311.	0.1 g	1-2, 4, 6, 9-11, 14-16, 18, 20-21, 24, 50-54, 56
TCLP Initial Sample pH	pH meter. US EPA 1311.	0.1 pH Units	1-2, 4, 6, 9-11, 14-16, 18, 20-21, 24, 50-54, 56
TCLP Acid Adjusted Sample pH	pH meter. US EPA 1311.	0.1 pH Units	1-2, 4, 6, 9-11, 14-16, 18, 20-21, 24, 50-54, 56
TCLP Extractant Type*	US EPA 1311.	-	1-2, 4, 6, 9-11, 14-16, 18, 20-21, 24, 50-54, 56
TCLP Extraction Fluid pH	pH meter. US EPA 1311.	0.1 pH Units	1-2, 4, 6, 9-11, 14-16, 18, 20-21, 24, 50-54, 56
TCLP Post Extraction Sample pH	pH meter. US EPA 1311.	0.1 pH Units	1-2, 4, 6, 9-11, 14-16, 18, 20-21, 24, 50-54, 56

Sample Type: Aqueous

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Total Digestion of Extracted Samples*	Nitric acid digestion. APHA 3030 E (modified) 23rd ed. 2017.	-	25-44, 46-48, 57-64
Heavy metals, totals, trace As,Cd,Cr,Cu,Ni,Pb,Zn	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23rd ed. 2017 / US EPA 200.8.	0.000053 - 0.0011 g/m^3	27, 29, 31-32, 36-37, 41, 43, 46-47, 57, 63

Sample Type: Aqueous			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B 23rd ed. 2017.	0.0011 - 0.021 g/m^3	25-26, 28, 30, 33-35, 38-40, 42, 44, 48, 58-62, 64
Polycyclic Aromatic Hydrocarbons Screening in Water, By Liq/Liq*	Liquid / liquid extraction, GC-MS/MS analysis. In-house based on US EPA 8270.	0.00010 - 0.0005 g/m^3	34-35, 45

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 02-Aug-2023 and 10-Aug-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Kim Harrison MSc
Client Services Manager - Environmental

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Certificate of Analysis

A2Pv1

Client:	GHD Limited	**Lab No:**	3212697
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	23-Mar-2023
		Date Reported:	12-Jun-2023
		Quote No:	124299
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		SB2 TP02 0.2 16-Mar-2023	SB2 TP03 0.2 16-Mar-2023	CHP TP01 0.2 16-Mar-2023	CHP TP01 0.5 16-Mar-2023	CHP TP04 0.6 16-Mar-2023
Lab Number:		3212697.1	3212697.3	3212697.4	3212697.5	3212697.7
Asbestos Presence / Absence		Asbestos NOT detected.	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	ACM debris and Loose fibres	Loose fibres	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	0.009	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	0.009	< 0.001	< 0.001	< 0.001
As Received Weight	g	1,070.0	822.9	985.2	601.1	646.6
Dry Weight	g	1,029.1	710.2	922.4	449.9	481.4
Moisture*	%	4	14	6	25	26
Sample Fraction >10mm	g dry wt	371.1	167.8	373.4	11.7	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	439.8	232.8	336.8	14.4	< 0.1
Sample Fraction <2mm	g dry wt	217.8	309.2	212.2	423.7	481.1
<2mm Subsample Weight	g dry wt	57.5	57.3	54.6	56.1	55.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	0.06124	0.00320	< 0.00001	< 0.00001

Sample Name:		B16 TP04 0.1 16-Mar-2023	B16 TP06 0.5 A 16-Mar-2023	B16 TP06 0.1 16-Mar-2023	B16 TP07 0.1 17-Mar-2023	HT TP25 0.2 17-Mar-2023
Lab Number:		3212697.8	3212697.10	3212697.11	3212697.14	3212697.19
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	ACM debris	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Sample Type: Soil						
Sample Name:		B16 TP04 0.1 16-Mar-2023	B16 TP06 0.5 A 16-Mar-2023	B16 TP06 0.1 16-Mar-2023	B16 TP07 0.1 17-Mar-2023	HT TP25 0.2 17-Mar-2023
Lab Number:		3212697.8	3212697.10	3212697.11	3212697.14	3212697.19
As Received Weight	g	854.9	730.3	636.7	676.1	784.5
Dry Weight	g	746.8	566.0	473.5	516.3	669.6
Moisture*	%	13	22	26	24	15
Sample Fraction >10mm	g dry wt	67.4	< 0.1	< 0.1	2.0	216.4
Sample Fraction <10mm to >2mm	g dry wt	379.3	3.7	66.5	34.9	183.0
Sample Fraction <2mm	g dry wt	299.8	562.0	406.5	478.9	269.9
<2mm Subsample Weight	g dry wt	58.8	53.1	54.9	55.9	54.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	0.00155	< 0.00001	< 0.00001

Sample Name:		HT TP27 0.1 17-Mar-2023	HT TP28 0.1 17-Mar-2023
Lab Number:		3212697.20	3212697.22
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
As Received Weight	g	606.9	673.6
Dry Weight	g	486.3	522.3
Moisture*	%	20	22
Sample Fraction >10mm	g dry wt	75.3	69.8
Sample Fraction <10mm to >2mm	g dry wt	127.2	111.0
Sample Fraction <2mm	g dry wt	283.6	341.0
<2mm Subsample Weight	g dry wt	53.7	58.8
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001

Glossary of Terms

• Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
• Trace - Trace levels of asbestos, as defined by AS4964-2004.
For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
https://www.branz.co.nz/asbestos

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7-8, 10-11, 14, 19-20, 22
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7-8, 10-11, 14, 19-20, 22

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 12-Jun-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Rhodri Williams BSc (Hons)
Technical Manager - Asbestos

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3212716 A2Pv1
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	23-Mar-2023
		Date Reported:	28-Mar-2023
		Quote No:	122978
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name	Lab Number	As Received Weight (g)	Dry Weight (g)	<2mm Subsample Weight (g dry wt)	Asbestos Presence / Absence	Description of Asbestos Form
CHP TP01 0.2	3212716.4	243.1	227.9	49.3	Asbestos NOT detected.	-
CHP TP01 0.5	3212716.5	172.8	129.3	59.0	Asbestos NOT detected.	-
CHP TP04 0.2	3212716.6	156.8	115.4	55.3	Asbestos NOT detected.	-
CHP TP04 0.6	3212716.7	161.3	117.2	55.1	Asbestos NOT detected.	-

Glossary of Terms

• Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
• Trace - Trace levels of asbestos, as defined by AS4964-2004.
For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	4-7
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	4-7
<2mm Subsample Weight	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	-	4-7
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	4-7
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	4-7

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 27-Mar-2023 and 28-Mar-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Technical Manager - Asbestos

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3212718 A2Pv1
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	23-Mar-2023
		Date Reported:	28-Mar-2023
		Quote No:	122978
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Building Material

Sample Name	**Lab Number**	Sample Category	Sample Weight on receipt (g)	**Asbestos Presence / Absence**	Description of Asbestos in Non Homogeneous Samples
SB2 TP3 Sheet	3212718.1	Fibre Cement	88.51	Amosite (Brown Asbestos) detected. Chrysotile (White Asbestos) detected. Crocidolite (Blue Asbestos) detected. Organic fibres detected.	N/A

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Analyst's Comments

Appendix No.1 - Chain of Custody

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Building Material

Test	**Method Description**	**Default Detection Limit**	**Sample No**
Asbestos in Bulk Material			
Sample Category	Assessment of sample type. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	-	1
Sample Weight on receipt	Sample weight (approximate). Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	0.01 g	1
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1
Description of Asbestos in Non Homogeneous Samples	Form, dimensions and/or weight of asbestos fibres present. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	-	1

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 24-Mar-2023 and 28-Mar-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Danielle Carter BSc, PGDipSci, MSc
Laboratory Technician - Asbestos

Hill Laboratories
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ANALYSIS REQUEST

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Hamilton 3240, New Zealand
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T +64 7 858 2000
E mail@hill-labs.co.nz
W www.hill-laboratories.com

Job No: 321 2718
Date Recv: 23-Mar-23 12:56
Received by: Ben Kingston
3132127182

Quote No 122978
Lab Order No

Primary Contact David Jackson 242155
Submitted By David Jackson 242155
Client Name CHD
Address

Phone 027 250 5817 *Mobile*
Email david.jackson@ghd.com.
Charge To
Client Reference 12559090.
Additional Client Ref
Order No

Results To *Reports will be emailed to Primary Contact by default. Additional Reports will be sent as specified below.*

☒ *Email Primary Contact* ☐ *Email Submitter* ☐ *Email Client*
☐ *Email Other*
☐ *Other*

Dates of testing are not routinely included in the Certificates of Analysis. Please inform the laboratory if you would like this information reported.

CHAIN OF CUSTODY RECORD

Sent to Hill Laboratories
☐ *Tick if you require COC to be emailed back*
Date & Time:
Name:
Signature:

Received at Hill Laboratories
Date & Time:
Name:
Signature:

Condition ☐ *Room Temp* ☐ *Chilled* ☐ *Frozen* *Temp:* 7.3

☐ Sample & Analysis details checked
Signature:

Priority ☐ **Low** ☑ **Normal** ☐ **High**
☐ **Urgent** (ASAP, *extra charge applies, please contact lab first*)

Requested Reporting Date:

ADDITIONAL INFORMATION / KNOWN HAZARDS

Asb. board in SB2 TP3 sheet.

Quoted Sample Types

No.	Sample Name	Sample Date/Time	Sample Type	Tests Required
1	SB2 TP02 0.	16/3	Soil.	Cold hold
2	SB2TP02 0.7	16/3		
3	SB2TP03 0.2			
4	SB2TP03 0.5			
5	SB2 TP3 sheet		asb. board	Asb. P/A.
6	CHP TP01 0.2		Soil.	Sde 10 metals, asb P/A
7	CHP TP01 0.5			
8	CHP TP04 0.2			
9	CHPTP04 0.6			

10	B16	TP04	0.1	16/3	[illegible]
11	B16	TP 04	0.8		
12	B16	TP 05	0.3		
13	~~B16~~	~~TP 05~~			
14	B16	TP 06	0.5		
15	B16	TP 06	0.1		
16	B16	TP 09	0.1		
17	B16	TP 08	0.5		
18.	B16	TP 07	0.1	17/3	[illegible]
19	B16	TP 07	0.9		
20	B16	TP 08	0.1		
21	B16	TP 08	0.5		
22	DIP	TP 01	0.2		
23	DIP	TP 01	0.5		
24	DIP	TP 01	1.1		
25	DIP	TP 02	0.2		
26	DIP	TP 02	0.5		
27	DIP	TP 02	1.2		
28	DIP	TP 03	0.2		
29	DIP	TP 03	0.7		
30	DIP	TP 03	1.2		

Hill Laboratories
TRIED, TESTED AND TRUSTED

ANALYSIS REQUEST

R J Hill Laboratories Limited
28 Duke Street Hamilton 3204
Private Bag 3205
Hamilton 3240, New Zealand
T 0508 HILL LAB (44 555 22)
T +64 7 858 2000
E mail@hill-labs.co.nz
W www.hill-laboratories.com

Office use only (Job No)

Quote No **Lab Order No**

Primary Contact David Jackson 242155

Submitted By David Jackson 242155

Client Name

Address

Phone *Mobile*

Email

Charge To

Client Reference

Additional Client Ref

Order No

Results To *Reports will be emailed to Primary Contact by default. Additional Reports will be sent as specified below.*

☐ *Email Primary Contact* ☐ *Email Submitter* ☐ *Email Client*

☐ *Email Other*

☐ *Other*

Dates of testing are not routinely included in the Certificates of Analysis. Please inform the laboratory if you would like this information reported.

CHAIN OF CUSTODY RECORD

Sent to Hill Laboratories *Date & Time:*

Name:

☐ *Tick if you require COC to be emailed back* *Signature:*

Received at Hill Laboratories *Date & Time:*

Name:

Signature:

Condition *Temp:*

☐ *Room Temp* ☐ *Chilled* ☐ *Frozen*

☐ Sample & Analysis details checked

Signature:

ADDITIONAL INFORMATION / KNOWN HAZARDS

Priority ☐ Low ☑ Normal ☐ High

☐ **Urgent** (ASAP, *extra charge applies, please contact lab first*)

Requested Reporting Date:

Quoted Sample Types

No.	Sample Name	Sample Date/Time	Sample Type	Tests Required
31	HTTP25 0.2	17/3	Soil	Cr (VI) total
32	HTTP25 0.5			
33	HTTP25 1.2			
34	HTTP27 0.1			
35	HTTP27 0.5			
36	HTTP27 0.7			
37	HTTP27 0.4			
38	HTTP28 0.1			

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T +64 7 858 2000
E mail@hill-labs.co.nz
W www.hill-laboratories.com

Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3213156 A2Pv1
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	23-Mar-2023
		Date Reported:	28-Mar-2023
		Quote No:	122978
		Order No:	12559090
		Client Reference:	12559090
		Add. Client Ref:	Sampled: 21/3/23
		Submitted By:	David Jackson

Sample Type: Building Material

Sample Name	**Lab Number**	Sample Category	Sample Weight on receipt (g)	**Asbestos Presence / Absence**	Description of Asbestos in Non Homogeneous Samples
TP03 Pipe	3213156.1	Fibre Cement	59.59	Amosite (Brown Asbestos) detected. Chrysotile (White Asbestos) detected. Crocidolite (Blue Asbestos) detected.	N/A

Glossary of Terms
• Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
• Trace - Trace levels of asbestos, as defined by AS4964-2004.
For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Building Material

Test	**Method Description**	**Default Detection Limit**	**Sample No**
Asbestos in Bulk Material			
Sample Category	Assessment of sample type. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	-	1
Sample Weight on receipt	Sample weight (approximate). Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	0.01 g	1
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1
Description of Asbestos in Non Homogeneous Samples	Form, dimensions and/or weight of asbestos fibres present. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	-	1

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 27-Mar-2023 and 28-Mar-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Keith Benson

Keith Benson HNC Chem
Laboratory Technician - Asbestos

R J Hill Laboratories Limited
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Hornby
Christchurch 8042 New Zealand

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+64 7 858 2000
mail@hill-labs.co.nz
www.hill-labs.co.nz

Certificate of Analysis

A2Pv1

Client:	GHD Limited	**Lab No:**	3213233
Contact:	David Jackson	**Date Received:**	23-Mar-2023
	C/- GHD Limited	**Date Reported:**	13-Jun-2023
	PO Box 660	**Quote No:**	124299
	Waikato Mail Centre	**Order No:**	12559090
	Hamilton 3240	**Client Reference:**	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		SB4 TP01 0.1 20-Mar-2023	SB4 TP02 0.2 20-Mar-2023	SB4 TP02 0.5 20-Mar-2023	SB4 TP03 0.1 20-Mar-2023	B68 TP06 0.1 20-Mar-2023
Lab Number:		3213233.1	3213233.3	3213233.4	3213233.5	3213233.7
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	646.6	682.5	794.4	731.8	964.2
Dry Weight	g	501.8	495.1	522.9	590.9	886.8
Moisture*	%	22	27	34	19	8
Sample Fraction >10mm	g dry wt	< 0.1	16.1	< 0.1	64.6	359.1
Sample Fraction <10mm to >2mm	g dry wt	84.4	157.4	< 0.1	333.9	233.9
Sample Fraction <2mm	g dry wt	416.4	320.8	522.0	192.2	293.3
<2mm Subsample Weight	g dry wt	50.8	53.6	51.5	55.7	58.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		B68 TP07 0.1 20-Mar-2023	B68 TP08 0.2 20-Mar-2023	B66 TP01 0.1 21-Mar-2023	B66 TP01 0.9 21-Mar-2023	B66 TP01 1.1 21-Mar-2023
Lab Number:		3213233.10	3213233.12	3213233.22	3213233.23	3213233.24
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	894.3	891.1	915.9	815.2	742.7
Dry Weight	g	823.9	810.9	842.7	549.3	462.0
Moisture*	%	8	9	8	33	38

This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised.
The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Sample Type: Soil						
Sample Name:		B68 TP07 0.1 20-Mar-2023	B68 TP08 0.2 20-Mar-2023	B66 TP01 0.1 21-Mar-2023	B66 TP01 0.9 21-Mar-2023	B66 TP01 1.1 21-Mar-2023
Lab Number:		3213233.10	3213233.12	3213233.22	3213233.23	3213233.24
Sample Fraction >10mm	g dry wt	332.1	81.8	177.0	< 0.1	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	155.2	96.0	168.8	< 0.1	57.6
Sample Fraction <2mm	g dry wt	336.4	611.8	496.8	547.4	402.7
<2mm Subsample Weight	g dry wt	56.3	59.3	59.0	53.0	54.9
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		B63 TP03 0.1 21-Mar-2023	B63 TP04 0.2 21-Mar-2023
Lab Number:		3213233.25	3213233.27
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
As Received Weight	g	1,041.2	745.7
Dry Weight	g	944.9	548.1
Moisture*	%	9	26
Sample Fraction >10mm	g dry wt	153.9	165.4
Sample Fraction <10mm to >2mm	g dry wt	242.2	246.2
Sample Fraction <2mm	g dry wt	548.6	135.6
<2mm Subsample Weight	g dry wt	53.7	50.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil. https://www.branz.co.nz/asbestos

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1, 3-5, 7, 10, 12, 22-25, 27
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1, 3-5, 7, 10, 12, 22-25, 27
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1, 3-5, 7, 10, 12, 22-25, 27
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1, 3-5, 7, 10, 12, 22-25, 27
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1, 3-5, 7, 10, 12, 22-25, 27
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1, 3-5, 7, 10, 12, 22-25, 27
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1, 3-5, 7, 10, 12, 22-25, 27
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1, 3-5, 7, 10, 12, 22-25, 27
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1, 3-5, 7, 10, 12, 22-25, 27
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7, 10, 12, 22-25, 27
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1, 3-5, 7, 10, 12, 22-25, 27
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7, 10, 12, 22-25, 27
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1, 3-5, 7, 10, 12, 22-25, 27
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7, 10, 12, 22-25, 27
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1, 3-5, 7, 10, 12, 22-25, 27

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 12-Jun-2023 and 13-Jun-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Rhodri Williams BSc (Hons)
Technical Manager - Asbestos

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Hornby
Christchurch 8042 New Zealand

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www.hill-labs.co.nz

Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3216641 A2Pv1
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	27-Mar-2023
		Date Reported:	14-Jun-2023
		Quote No:	124299
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		WD2 TP09 0.1 [NZG] 22-Mar-2023	WD2 TP08 0.2 [NZG] 22-Mar-2023	WD2 TP07 0.1 [NZG] 22-Mar-2023	WD2 TP06 0.1 [NZG] 22-Mar-2023	WD TP01 0.1 [NZG] 22-Mar-2023
Lab Number:		3216641.37	3216641.40	3216641.42	3216641.44	3216641.64
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	636.4	577.0	613.8	597.9	687.4
Dry Weight	g	443.4	396.9	429.9	403.2	505.3
Moisture*	%	30	31	30	33	26
Sample Fraction >10mm	g dry wt	< 0.1	< 0.1	8.0	1.5	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	93.2	70.7	99.3	83.0	188.5
Sample Fraction <2mm	g dry wt	349.2	324.9	321.7	317.8	315.2
<2mm Subsample Weight	g dry wt	54.0	57.5	51.0	52.8	50.8
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		WD TP02 0.1 [NZG] 22-Mar-2023	WD TP03 0.1 [NZG] 22-Mar-2023	WD TP04 0.1 [NZG] 22-Mar-2023	WD TP05 0.1 [NZG] 22-Mar-2023
Lab Number:		3216641.66	3216641.68	3216641.71	3216641.73
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	681.8	627.7	638.0	645.6
Dry Weight	g	508.7	455.0	459.8	467.9
Moisture*	%	25	28	28	28

Sample Type: Soil					
Sample Name:		WD TP02 0.1 [NZG] 22-Mar-2023	WD TP03 0.1 [NZG] 22-Mar-2023	WD TP04 0.1 [NZG] 22-Mar-2023	WD TP05 0.1 [NZG] 22-Mar-2023
Lab Number:		3216641.66	3216641.68	3216641.71	3216641.73
Sample Fraction >10mm	g dry wt	11.1	18.3	< 0.1	5.3
Sample Fraction <10mm to >2mm	g dry wt	169.5	157.9	137.2	148.9
Sample Fraction <2mm	g dry wt	325.8	278.4	321.6	311.8
<2mm Subsample Weight	g dry wt	57.4	51.8	54.9	50.9
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

• Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
• Trace - Trace levels of asbestos, as defined by AS4964-2004.
For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
https://www.branz.co.nz/asbestos

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	37, 40, 42, 44, 64, 66, 68, 71, 73
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	37, 40, 42, 44, 64, 66, 68, 71, 73
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	37, 40, 42, 44, 64, 66, 68, 71, 73
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	37, 40, 42, 44, 64, 66, 68, 71, 73
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	37, 40, 42, 44, 64, 66, 68, 71, 73
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	37, 40, 42, 44, 64, 66, 68, 71, 73
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	37, 40, 42, 44, 64, 66, 68, 71, 73
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	37, 40, 42, 44, 64, 66, 68, 71, 73

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	37, 40, 42, 44, 64, 66, 68, 71, 73
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	37, 40, 42, 44, 64, 66, 68, 71, 73
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	37, 40, 42, 44, 64, 66, 68, 71, 73
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	37, 40, 42, 44, 64, 66, 68, 71, 73
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	37, 40, 42, 44, 64, 66, 68, 71, 73
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	37, 40, 42, 44, 64, 66, 68, 71, 73
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	37, 40, 42, 44, 64, 66, 68, 71, 73

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 13-Jun-2023 and 14-Jun-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Rhodri Williams BSc (Hons)
Technical Manager - Asbestos

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3299080	A2Pv3
Contact:	Adam Gray	**Date Received:**	09-Jun-2023	
	C/- GHD Limited	**Date Reported:**	05-Jul-2023	**(Amended)**
	PO Box 1746	**Quote No:**	124299	
	Wellington 6140	**Order No:**	12559090	
		Client Reference:	12559090	
		Submitted By:	David Jackson	

Sample Type: Soil

Sample Name:		B34 TP 03 0.10 07-Jun-2023	B34 TP 04 0.10 07-Jun-2023	B35 TP 02 0.10 07-Jun-2023	B35 TP 02 0.50 07-Jun-2023	B35 TP 03 0.10 07-Jun-2023
Lab Number:		3299080.7	3299080.10	3299080.19	3299080.20	3299080.22
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.
Description of Asbestos Form		-	-	-	-	ACM debris
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	772.3	792.8	820.7	695.6	759.0
Dry Weight	g	555.1	614.9	721.8	480.4	640.7
Moisture*	%	28	22	12	31	16
Sample Fraction >10mm	g dry wt	103.1	23.2	15.5	< 0.1	59.0
Sample Fraction <10mm to >2mm	g dry wt	51.9	46.1	408.6	17.1	322.9
Sample Fraction <2mm	g dry wt	399.5	545.0	297.5	462.4	258.7
<2mm Subsample Weight	g dry wt	57.8	55.5	57.6	56.7	56.1
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	0.00211

Sample Name:		B35 TP 04 0.10 07-Jun-2023	B35 TP 04 0.50 07-Jun-2023	B35 TP 05 0.10 07-Jun-2023	HT TP 29 0.10 08-Jun-2023	WWTP TP01 0.10 13-Jun-2023
Lab Number:		3299080.25	3299080.26	3299080.28	3299080.31	3299080.33
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	619.1	633.0	681.8	743.7	697.1
Dry Weight	g	474.1	460.0	606.1	611.8	505.4

Sample Type: Soil

Sample Name:		B35 TP 04 0.10 07-Jun-2023	B35 TP 04 0.50 07-Jun-2023	B35 TP 05 0.10 07-Jun-2023	HT TP 29 0.10 08-Jun-2023	WWTP TP01 0.10 13-Jun-2023
Lab Number:		3299080.25	3299080.26	3299080.28	3299080.31	3299080.33
Moisture*	%	23	27	11	18	27
Sample Fraction >10mm	g dry wt	16.2	< 0.1	1.2	165.0	7.2
Sample Fraction <10mm to >2mm	g dry wt	30.6	28.2	70.3	213.3	50.0
Sample Fraction <2mm	g dry wt	427.0	431.2	534.6	233.5	447.7
<2mm Subsample Weight	g dry wt	53.2	54.2	54.0	50.6	51.8
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		WWTP TP01 0.50 13-Jun-2023	WWTP TP02 0.10 13-Jun-2023	WWTP TP02 0.50 13-Jun-2023	WWTP TP03 0.10 13-Jun-2023	WWTP TP03 0.50 13-Jun-2023
Lab Number:		3299080.34	3299080.36	3299080.37	3299080.39	3299080.40
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	800.3	693.3	755.7	725.9	783.2
Dry Weight	g	552.6	508.5	482.1	555.3	589.1
Moisture*	%	31	27	36	24	25
Sample Fraction >10mm	g dry wt	< 0.1	38.5	< 0.1	30.3	3.4
Sample Fraction <10mm to >2mm	g dry wt	1.7	113.6	< 0.1	113.8	105.3
Sample Fraction <2mm	g dry wt	550.7	356.0	481.6	410.4	479.8
<2mm Subsample Weight	g dry wt	53.0	51.2	59.3	56.1	54.5
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		WWTP TP04 0.10 13-Jun-2023	WWTP TP04 0.50 13-Jun-2023	DS01 TP01 0.10 12-Jun-2023	DS01 TP01 0.50 12-Jun-2023	DS01 TP02 0.10 12-Jun-2023
Lab Number:		3299080.42	3299080.43	3299080.49	3299080.50	3299080.51
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	881.4	848.6	571.9	705.0	619.1
Dry Weight	g	778.0	712.7	367.7	468.6	442.9
Moisture*	%	12	16	36	34	28
Sample Fraction >10mm	g dry wt	415.6	331.0	< 0.1	< 0.1	101.8
Sample Fraction <10mm to >2mm	g dry wt	203.0	213.9	17.2	17.1	118.3
Sample Fraction <2mm	g dry wt	159.1	167.3	350.0	451.3	222.7

Sample Type: Soil						
Sample Name:		WWTP TP04 0.10 13-Jun-2023	WWTP TP04 0.50 13-Jun-2023	DS01 TP01 0.10 12-Jun-2023	DS01 TP01 0.50 12-Jun-2023	DS01 TP02 0.10 12-Jun-2023
Lab Number:		3299080.42	3299080.43	3299080.49	3299080.50	3299080.51
<2mm Subsample Weight	g dry wt	55.9	58.1	56.0	59.5	53.9
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		DS01 TP03 0.10 12-Jun-2023	DS01 TP03 0.50 12-Jun-2023	DS01 TP04 0.10 12-Jun-2023	DS01 TP05 0.10 12-Jun-2023	DS01 TP05 0.50 12-Jun-2023
Lab Number:		3299080.54	3299080.55	3299080.57	3299080.60	3299080.61
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	595.7	777.0	628.2	578.2	766.3
Dry Weight	g	374.6	533.1	401.7	375.3	514.8
Moisture*	%	37	31	36	35	33
Sample Fraction >10mm	g dry wt	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	59.1	< 0.1	93.3	92.4	< 0.1
Sample Fraction <2mm	g dry wt	314.6	532.6	308.0	282.4	514.3
<2mm Subsample Weight	g dry wt	52.9	50.2	58.7	52.7	54.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		NUR TP01 0.10 13-Jun-2023	NUR TP01 0.50 13-Jun-2023	NUR TP02 0.10 13-Jun-2023	NUR TP03 0.10 13-Jun-2023	NUR TP03 0.50 13-Jun-2023
Lab Number:		3299080.63	3299080.64	3299080.66	3299080.69	3299080.70
Asbestos Presence / Absence		Asbestos NOT detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	Loose fibres	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	634.2	572.2	825.6	589.6	549.0
Dry Weight	g	447.9	369.6	666.0	415.2	354.2
Moisture*	%	29	35	19	30	35
Sample Fraction >10mm	g dry wt	12.9	3.3	96.3	71.6	16.8
Sample Fraction <10mm to >2mm	g dry wt	127.2	82.0	239.3	96.1	63.0
Sample Fraction <2mm	g dry wt	307.6	283.6	330.3	247.2	273.5
<2mm Subsample Weight	g dry wt	53.0	53.1	51.7	55.0	53.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Type: Soil						
Sample Name:		NUR TP01 0.10 13-Jun-2023	NUR TP01 0.50 13-Jun-2023	NUR TP02 0.10 13-Jun-2023	NUR TP03 0.10 13-Jun-2023	NUR TP03 0.50 13-Jun-2023
Lab Number:		3299080.63	3299080.64	3299080.66	3299080.69	3299080.70
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	0.00096	< 0.00001	< 0.00001	< 0.00001

Sample Name:		NUR TP04 0.10 13-Jun-2023	PAV TP01 0.10 12-Jun-2023	PAV TP01 0.50 12-Jun-2023	PAV TP02 0.10 12-Jun-2023	B59 TP04 0.10 14-Jun-2023
Lab Number:		3299080.72	3299080.75	3299080.76	3299080.78	3299080.84
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	581.7	638.4	593.6	588.9	750.4
Dry Weight	g	396.4	475.4	422.7	415.5	647.3
Moisture*	%	32	26	29	29	14
Sample Fraction >10mm	g dry wt	26.0	95.4	30.2	8.8	176.8
Sample Fraction <10mm to >2mm	g dry wt	108.4	139.5	140.8	65.0	235.8
Sample Fraction <2mm	g dry wt	261.7	240.1	250.9	341.4	234.2
<2mm Subsample Weight	g dry wt	54.8	57.2	53.0	50.7	50.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		B59 TP04 0.50 14-Jun-2023	B66 HA01 14-Jun-2023	B66 HA02 14-Jun-2023	B67 HA01 0.10 14-Jun-2023	B67 HA01 0.50 14-Jun-2023
Lab Number:		3299080.85	3299080.90	3299080.91	3299080.92	3299080.93
Asbestos Presence / Absence		Asbestos NOT detected.	Chrysotile (White Asbestos) detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	ACM debris and Loose fibres	ACM debris and Loose fibres	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	0.079	0.007	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	0.079	0.007	< 0.001	< 0.001
As Received Weight	g	610.8	321.2	313.6	1,007.3	1,012.5
Dry Weight	g	425.5	278.5	263.9	957.2	869.9
Moisture*	%	30	13	16	5	14
Sample Fraction >10mm	g dry wt	72.2	37.4	59.4	454.5	150.2
Sample Fraction <10mm to >2mm	g dry wt	193.8	57.8	82.6	231.6	106.9
Sample Fraction <2mm	g dry wt	158.2	182.8	121.7	270.7	611.9
<2mm Subsample Weight	g dry wt	52.4	53.9	52.8	59.0	58.9
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	0.2213	0.01821	< 0.00001	< 0.00001

Sample Type: Soil						
Sample Name:		B67 HA02 0.10 14-Jun-2023	B67 HA02 0.50 14-Jun-2023	DIP HA01 0.1 14-Jun-2023	DIP HA02 0.1 14-Jun-2023	DIP HA03 0.1 14-Jun-2023
Lab Number:		3299080.94	3299080.95	3299080.96	3299080.97	3299080.98
Asbestos Presence / Absence		Chrysotile (White Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		Loose fibres	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	856.2	691.9	559.8	662.8	753.2
Dry Weight	g	791.2	445.4	321.4	488.6	540.5
Moisture*	%	8	36	43	26	28
Sample Fraction >10mm	g dry wt	342.7	23.8	< 0.1	91.4	39.4
Sample Fraction <10mm to >2mm	g dry wt	279.5	146.9	52.4	103.9	106.9
Sample Fraction <2mm	g dry wt	166.5	272.2	267.9	292.4	392.5
<2mm Subsample Weight	g dry wt	55.8	54.2	53.3	53.2	57.1
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	0.00009	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		B26 TP01 0.1 19-Jun-2023	B26 TP02 0.1 19-Jun-2023	B26 TP02 0.5 19-Jun-2023	B26 TP03 0.1 19-Jun-2023	DS02 TP01 0.1 20-Jun-2023
Lab Number:		3299080.99	3299080.100	3299080.101	3299080.103	3299080.107
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Amosite (Brown Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	Loose fibres	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	681.4	698.4	459.8	671.1	441.3
Dry Weight	g	511.2	539.3	318.1	500.2	257.1
Moisture*	%	25	23	31	25	42
Sample Fraction >10mm	g dry wt	98.3	118.5	5.0	99.0	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	177.3	195.0	99.3	174.3	99.4
Sample Fraction <2mm	g dry wt	233.1	224.7	212.5	225.4	156.3
<2mm Subsample Weight	g dry wt	58.2	55.9	52.4	57.3	56.1
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	0.00005	< 0.00001	< 0.00001

Sample Name:		DS02 TP01 0.5 20-Jun-2023	DS02 TP02 0.1 19-Jun-2023	DS02 TP03 0.1 20-Jun-2023	DS02 TP03 0.5 20-Jun-2023	DS02 TP04 0.1 20-Jun-2023
Lab Number:		3299080.108	3299080.110	3299080.113	3299080.114	3299080.116
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-

Sample Type: Soil

Sample Name:		DS02 TP01 0.5 20-Jun-2023	DS02 TP02 0.1 19-Jun-2023	DS02 TP03 0.1 20-Jun-2023	DS02 TP03 0.5 20-Jun-2023	DS02 TP04 0.1 20-Jun-2023
Lab Number:		3299080.108	3299080.110	3299080.113	3299080.114	3299080.116
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	359.6	626.8	866.1	489.4	473.3
Dry Weight	g	206.2	404.3	601.6	294.0	290.4
Moisture*	%	43	36	31	40	39
Sample Fraction >10mm	g dry wt	< 0.1	29.0	50.6	2.1	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	109.1	159.8	99.3	135.8	46.8
Sample Fraction <2mm	g dry wt	94.5	213.6	444.6	154.6	242.1
<2mm Subsample Weight	g dry wt	50.2	55.1	50.6	51.0	50.1
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		DS02 TP05 0.1 20-Jun-2023	DS02 TP05 0.5 20-Jun-2023	DS03 TP01 0.1 21-Jun-2023	DS03 TP01 0.5 21-Jun-2023	DS03 TP02 0.1 21-Jun-2023
Lab Number:		3299080.119	3299080.120	3299080.122	3299080.123	3299080.125
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	440.4	371.2	620.7	633.1	611.7
Dry Weight	g	260.2	223.3	437.8	487.5	393.7
Moisture*	%	41	40	29	23	36
Sample Fraction >10mm	g dry wt	16.0	< 0.1	2.7	< 0.1	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	78.2	94.2	119.9	10.6	112.3
Sample Fraction <2mm	g dry wt	165.4	127.8	314.2	476.0	278.3
<2mm Subsample Weight	g dry wt	53.5	55.7	56.6	59.4	52.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		DS03 TP02 0.5 21-Jun-2023	DS03 TP03 0.1 21-Jun-2023	DS03 TP03 0.5 21-Jun-2023	DS03 TP04 0.1 21-Jun-2023	DS03 TP04 0.5 21-Jun-2023
Lab Number:		3299080.126	3299080.128	3299080.129	3299080.131	3299080.132
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	Loose fibres	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Sample Type: Soil						
Sample Name:		DS03 TP02 0.5 21-Jun-2023	DS03 TP03 0.1 21-Jun-2023	DS03 TP03 0.5 21-Jun-2023	DS03 TP04 0.1 21-Jun-2023	DS03 TP04 0.5 21-Jun-2023
Lab Number:		3299080.126	3299080.128	3299080.129	3299080.131	3299080.132
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	674.8	658.4	687.4	712.1	653.4
Dry Weight	g	499.8	462.0	500.3	515.7	458.0
Moisture*	%	26	30	27	28	30
Sample Fraction >10mm	g dry wt	< 0.1	< 0.1	< 0.1	24.0	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	98.6	105.1	67.1	147.3	81.5
Sample Fraction <2mm	g dry wt	399.8	355.2	431.9	343.1	375.3
<2mm Subsample Weight	g dry wt	54.7	55.0	53.9	53.8	56.1
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	0.00026	< 0.00001

Glossary of Terms
• Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
• Trace - Trace levels of asbestos, as defined by AS4964-2004.
For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
https://www.branz.co.nz/asbestos

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Analyst's Comments

Amended Report: This certificate of analysis replaces report '3299080-A2Pv2' issued on 03-Jul-2023 at 4:19 pm.
Reason for amendment: Further testing as per client request

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
New Zealand Guidelines Semi Quantitative Asbestos in Soil			

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	7, 10, 19-20, 22, 25-26, 28, 31, 33-34, 36-37, 39-40, 42-43, 49-51, 54-55, 57, 60-61, 63-64, 66, 69-70, 72, 75-76, 78, 84-85, 90-101, 103, 107-108, 110, 113-114, 116, 119-120, 122-123, 125-126, 128-129, 131-132

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 15-Jun-2023 and 05-Jul-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Rhodri Williams BSc (Hons)
Technical Manager - Asbestos

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3362886 A2Pv1
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	12-Sep-2023
		Date Reported:	26-Sep-2023
		Quote No:	124299
		Order No:	12559090
		Client Reference:	12559090
		Add. Client Ref:	3219033
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		SB08 HA01 0.1 12-Sep-2023	SB08 HA01 0.5 12-Sep-2023	SB08 HA03 0.1 12-Sep-2023	SB08 HA02 0.1 12-Sep-2023	SB08 HA03 0.5 12-Sep-2023
Lab Number:		3362886.1	3362886.2	3362886.3	3362886.4	3362886.5
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	ACM debris and Loose fibres	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	0.003	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	0.003	< 0.001
As Received Weight	g	515.2	623.9	541.4	543.1	545.9
Dry Weight	g	328.9	417.4	338.5	324.3	370.5
Moisture*	%	36	33	37	40	32
Sample Fraction >10mm	g dry wt	10.5	6.1	6.4	3.1	5.4
Sample Fraction <10mm to >2mm	g dry wt	51.9	49.1	46.5	30.8	55.9
Sample Fraction <2mm	g dry wt	265.8	361.6	285.2	290.1	308.8
<2mm Subsample Weight	g dry wt	53.5	53.6	52.9	54.9	50.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	0.00821	< 0.00001

Sample Name:		SB08 HA02 0.5 12-Sep-2023	SB08 HA04 0.1 12-Sep-2023	SB08 HA04 0.5 12-Sep-2023	WDH TP01 0.1 12-Sep-2023	WDH TP02 0.1 12-Sep-2023
Lab Number:		3362886.6	3362886.7	3362886.8	3362886.9	3362886.12
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	538.9	471.5	489.5	691.8	891.9

Sample Type: Soil

Sample Name:		SB08 HA02 0.5 12-Sep-2023	SB08 HA04 0.1 12-Sep-2023	SB08 HA04 0.5 12-Sep-2023	WDH TP01 0.1 12-Sep-2023	WDH TP02 0.1 12-Sep-2023
Lab Number:		3362886.6	3362886.7	3362886.8	3362886.9	3362886.12
Dry Weight	g	367.2	295.2	325.8	566.0	802.0
Moisture*	%	32	37	33	18	10
Sample Fraction >10mm	g dry wt	21.2	11.1	< 0.1	190.5	303.2
Sample Fraction <10mm to >2mm	g dry wt	34.2	39.4	63.7	156.2	283.0
Sample Fraction <2mm	g dry wt	311.6	244.5	261.9	219.2	215.5
<2mm Subsample Weight	g dry wt	52.7	52.0	53.3	58.3	57.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		WDH TP03 0.1 12-Sep-2023	WDH TP03 0.5 12-Sep-2023	WDG TP01 0.1 11-Sep-2023	WDG TP02 0.1 11-Sep-2023	WDG TP03 0.1 11-Sep-2023
Lab Number:		3362886.15	3362886.16	3362886.18	3362886.21	3362886.24
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	655.3	545.4	577.6	503.4	585.8
Dry Weight	g	495.0	366.5	416.1	305.0	410.6
Moisture*	%	24	33	28	39	30
Sample Fraction >10mm	g dry wt	180.0	45.5	13.4	2.8	15.3
Sample Fraction <10mm to >2mm	g dry wt	90.0	83.5	126.7	15.7	82.4
Sample Fraction <2mm	g dry wt	224.5	237.0	275.7	286.1	312.7
<2mm Subsample Weight	g dry wt	59.9	55.4	50.6	54.6	56.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		WDG TP03 0.5 11-Sep-2023	WDF TP01 0.1 11-Sep-2023	WDF TP02 0.1 11-Sep-2023	WDF TP03 0.1 11-Sep-2023	WDF TP03 0.5 11-Sep-2023
Lab Number:		3362886.25	3362886.27	3362886.30	3362886.33	3362886.34
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	549.8	792.2	596.9	563.6	565.3
Dry Weight	g	316.9	607.3	403.8	337.2	328.8
Moisture*	%	42	23	32	40	42
Sample Fraction >10mm	g dry wt	< 0.1	219.9	28.9	< 0.1	21.8
Sample Fraction <10mm to >2mm	g dry wt	77.1	190.1	159.8	200.2	123.1

Sample Type: Soil

Sample Name:		WDG TP03 0.5 11-Sep-2023	WDF TP01 0.1 11-Sep-2023	WDF TP02 0.1 11-Sep-2023	WDF TP03 0.1 11-Sep-2023	WDF TP03 0.5 11-Sep-2023
Lab Number:		3362886.25	3362886.27	3362886.30	3362886.33	3362886.34
Sample Fraction <2mm	g dry wt	238.9	196.6	213.5	136.6	183.3
<2mm Subsample Weight	g dry wt	56.5	58.6	56.6	55.3	58.7
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		NW FILL TP01 0.1 11-Sep-2023	NW FILL TP01 0.5 11-Sep-2023	NW FILL TP02 0.1 11-Sep-2023	NW FILL TP03 0.1 11-Sep-2023	NW FILL TP03 0.5 11-Sep-2023
Lab Number:		3362886.36	3362886.37	3362886.39	3362886.42	3362886.43
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	459.4	497.5	584.6	472.2	506.9
Dry Weight	g	292.3	320.6	419.0	305.4	352.6
Moisture*	%	36	36	28	35	30
Sample Fraction >10mm	g dry wt	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	21.5	42.0	97.3	32.3	66.7
Sample Fraction <2mm	g dry wt	269.3	277.8	320.5	271.8	284.9
<2mm Subsample Weight	g dry wt	56.1	53.2	59.7	56.1	55.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		NW FILL TP04 0.1 11-Sep-2023	NW FILL TP04 0.5 11-Sep-2023
Lab Number:		3362886.44	3362886.45
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
As Received Weight	g	573.2	590.1
Dry Weight	g	379.5	403.4
Moisture*	%	34	32
Sample Fraction >10mm	g dry wt	< 0.1	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	53.6	173.0
Sample Fraction <2mm	g dry wt	324.7	228.0
<2mm Subsample Weight	g dry wt	53.2	55.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001

Sample Type: Soil		
Sample Name:	NW FILL TP04 0.1 11-Sep-2023	NW FILL TP04 0.5 11-Sep-2023
Lab Number:	3362886.44	3362886.45
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001

Glossary of Terms

• Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
• Trace - Trace levels of asbestos, as defined by AS4964-2004.
For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
https://www.branz.co.nz/asbestos

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g dry wt	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9, 12, 15-16, 18, 21, 24-25, 27, 30, 33-34, 36-37, 39, 42-45

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 22-Sep-2023 and 26-Sep-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Rhodri Williams BSc (Hons)
Technical Manager - Asbestos

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mail@hill-labs.co.nz
www.hill-labs.co.nz

Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3220337 A2Pv1
Contact:	David Jackson C/- GHD Limited PO Box 660 Waikato Mail Centre Hamilton 3240	**Date Received:**	29-Mar-2023
		Date Reported:	13-Dec-2023
		Quote No:	123194
		Order No:	12559090
		Client Reference:	12559090
		Submitted By:	Alex Lucas

Sample Type: Soil

Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
SCH TP01 0.1	3220337.5	164.1	111.9	51.4	Asbestos NOT detected.	-
SCH TP01 0.3	3220337.6	159.5	88.1	15.6	Asbestos NOT detected.	-
SCH TP02 0.1	3220337.7	125.6	86.0	54.8	Asbestos NOT detected.	-
SCH TP03 0.1	3220337.9	124.6	81.0	55.8	Asbestos NOT detected.	-
SCH TP03 0.7	3220337.10	153.1	93.2	33.7	Asbestos NOT detected.	-
SCH TP04 0.1	3220337.11	160.8	116.7	46.4	Asbestos NOT detected.	-

Glossary of Terms

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- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
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- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	5-7, 9-11
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	5-7, 9-11
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	5-7, 9-11
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	5-7, 9-11
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	5-7, 9-11

This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised.
The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 13-Dec-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Rhodri Williams BSc (Hons)
Technical Manager - Asbestos

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Certificate of Analysis

Client:	GHD Limited	**Lab No:**	3223323 A2Pv1
Contact:	David Jackson	**Date Received:**	31-Mar-2023
	C/- GHD Limited	**Date Reported:**	12-Dec-2023
	PO Box 660	**Quote No:**	122978
	Waikato Mail Centre	**Order No:**	12559090
	Hamilton 3240	**Client Reference:**	12559090
		Submitted By:	David Jackson

Sample Type: Soil

Sample Name:		TRF TP01 0.1 29-Mar-2023	TRF TP03 0.1 29-Mar-2023
Lab Number:		3223323.12	3223323.14
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
As Received Weight	g	631.6	586.6
Dry Weight	g	383.9	399.3
Moisture*	%	39	32
Sample Fraction >10mm	g dry wt	5.4	< 0.1
Sample Fraction <10mm to >2mm	g dry wt	49.0	92.6
Sample Fraction <2mm	g dry wt	328.6	306.3
<2mm Subsample Weight	g dry wt	50.0	50.8
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001

Glossary of Terms

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• Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
• Trace - Trace levels of asbestos, as defined by AS4964-2004.
For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil. https://www.branz.co.nz/asbestos

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	12, 14
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	12, 14
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	12, 14
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	12, 14
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	12, 14
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	12, 14
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	12, 14
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	12, 14
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	12, 14
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	12, 14
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	12, 14
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	12, 14
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	12, 14
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	12, 14
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	12, 14

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 12-Dec-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Rhodri Williams BSc (Hons)
Technical Manager - Asbestos

ANALYTICA LABORATORIES

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Certificate of Analysis

GHD Ltd
103 Tristram Street
Hamilton

Attention: David Jackson
Phone: +64 4 495 5817
Email: david.jackson@ghd.com

Sampling Site:

Lab Reference: 23-27152
Submitted by:
Date Received: 12/09/2023
Testing Initiated: 13/09/2023
Date Completed: 19/09/2023
Order Number:
Reference: 1259090

Report Comments

Samples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in acceptable condition unless otherwise noted on this report.
Specific testing dates are available on request.

Heavy Metals in Soil

		Client Sample ID	Trip A	Trip B
		Date Sampled		
Analyte	Unit	*Reporting Limit*	23-27152-1	23-27152-2
Arsenic	mg/kg dry wt	*0.125*	4.2	4.5
Beryllium	mg/kg dry wt	*0.013*	0.56	1.2
Boron	mg/kg dry wt	*1.25*	9.1	16
Cadmium	mg/kg dry wt	*0.005*	0.086	0.30
Chromium	mg/kg dry wt	*0.125*	18.3	13.9
Copper	mg/kg dry wt	*0.075*	68.3	48.7
Lead	mg/kg dry wt	*0.25*	24.7	198
Mercury	mg/kg dry wt	*0.025*	0.034	0.11
Nickel	mg/kg dry wt	*0.05*	10.4	10.6
Zinc	mg/kg dry wt	*0.05*	75.0	189

Method Summary

Elements in Soil Samples dried and passed through a 2 mm sieve followed by acid digestion and analysis by ICP-MS. In accordance with in-house procedure based on US EPA method 200.8.

Thara Samarasinghe, B.Sc.
Technician

Elizabeth Gardner
Lab Tech Sample Prep

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Certificate of Analysis

GHD Ltd
103 Tristram Street
Hamilton

Attention: David Jackson
Phone: +64 4 495 5871
Email: david.jackson@ghd.com

Sampling Site:

Lab Reference: 23-28470
Submitted by:
Date Received: 25/09/2023
Testing Initiated: 25/09/2023
Date Completed: 28/09/2023
Order Number:
Reference: 12559090

Report Comments

Samples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in acceptable condition unless otherwise noted on this report.
Specific testing dates are available on request.

Heavy Metals in Soil

		Client Sample ID	Trip D	Trip E
		Date Sampled		
Analyte	Unit	*Reporting Limit*	23-28470-1	23-28470-2
Arsenic	mg/kg dry wt	*0.125*	6.8	3.7
Beryllium	mg/kg dry wt	*0.013*	1.0	0.94
Boron	mg/kg dry wt	*1.25*	1.9	2.3
Cadmium	mg/kg dry wt	*0.005*	0.099	0.11
Chromium	mg/kg dry wt	*0.125*	14.2	14.6
Copper	mg/kg dry wt	*0.075*	25.0	29.6
Lead	mg/kg dry wt	*0.25*	18.8	30.0
Mercury	mg/kg dry wt	*0.025*	0.14	0.094
Nickel	mg/kg dry wt	*0.05*	7.24	9.48
Zinc	mg/kg dry wt	*0.05*	41.0	75.0

Polycyclic Aromatic Hydrocarbons - Soil

		Client Sample ID	Trip D
		Date Sampled	
Analyte	Unit	*Reporting Limit*	23-28470-1
1-Methylnaphthalene	mg/kg dry wt	*0.01*	<0.010
2-Methylnaphthalene	mg/kg dry wt	*0.01*	<0.010
Acenaphthene	mg/kg dry wt	*0.01*	<0.010
Acenaphthylene	mg/kg dry wt	*0.01*	<0.010
Anthracene	mg/kg dry wt	*0.01*	<0.010
Benz[a]anthracene	mg/kg dry wt	*0.02*	<0.020

Polycyclic Aromatic Hydrocarbons - Soil

		Client Sample ID	Trip D
		Date Sampled	
Benzo[a]pyrene	mg/kg dry wt	*0.01*	<0.010
Benzo[b]&[j] fluoranthene	mg/kg dry wt	*0.02*	<0.020
Benzo[g,h,i]perylene	mg/kg dry wt	*0.02*	<0.020
Benzo[k]fluoranthene	mg/kg dry wt	*0.01*	<0.010
Chrysene	mg/kg dry wt	*0.01*	<0.010
Dibenz(a,h)anthracene	mg/kg dry wt	*0.01*	<0.010
Fluoranthene	mg/kg dry wt	*0.02*	<0.020
Fluorene	mg/kg dry wt	*0.01*	<0.010
Indeno(1,2,3-cd)pyrene	mg/kg dry wt	*0.01*	<0.010
Naphthalene	mg/kg dry wt	*0.01*	<0.010
Phenanthrene	mg/kg dry wt	*0.01*	<0.010
Pyrene	mg/kg dry wt	*0.02*	<0.020
Benzo[a]pyrene TEQ (LOR)	mg/kg dry wt	*0.03*	0.030
Benzo[a]pyrene TEQ (Zero)	mg/kg dry wt	*0.01*	<0.010
Anthracene-d10 (Surrogate)	%	*1*	120

Moisture Content

		Client Sample ID	Trip D
		Date Sampled	
Analyte	Unit	*Reporting Limit*	23-28470-1
Moisture Content	%	*1*	36

Method Summary

Elements in Soil

Samples dried and passed through a 2 mm sieve followed by acid digestion and analysis by ICP-MS. In accordance with in-house procedure based on US EPA method 200.8.

PAH in Soil

Solvent extraction, silica cleanup, followed by GC-MS analysis.
Benzo[a]pyrene TEQ (LOR): The most conservative TEQ estimate, where a result is reported as less than the limit of reporting (LOR) the LOR value is used to calculate the TEQ for that PAH.
Benzo[a]pyrene TEQ (Zero): The least conservative TEQ estimate, PAHs reported as less than the limit of reporting (LOR) are not included in the TEQ calculation.
Benzo[a]pyrene toxic equivalence (TEQ) is calculated according to *'Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health'*. Ministry for the Environment. 2011. (In accordance with in-house procedure).

Moisture

Moisture content is determined gravimetrically by drying at 103 °C.

Sharelle Frank, B.Sc. (Tech)
Technologist

Divya Goundar DipSciTech
Technician

Astra Southerwood,
Sample Preparation Team Leader

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Certificate of Analysis

Client:	Hail Environmental	**Lab No:**	3194967 SPv1
Contact:	Dave Bull	**Date Received:**	08-Mar-2023
	C/- Hail Environmental	**Date Reported:**	10-Mar-2023
	PO Box 13113	**Quote No:**	72619
	Tauranga Central	**Order No:**	
	Tauranga 3141	**Client Reference:**	1090A
		Submitted By:	Anna Carter

Sample Type: Soil

	Sample Name:	1090A B2/1 A 0.0 06-Mar-2023	1090A B2/1 A 0.4 06-Mar-2023	1090A B2/1 O 0.0 06-Mar-2023	1090A B5/1 A 0.1 07-Mar-2023	1090A B5/1 B 0.0 07-Mar-2023
	Lab Number:	3194967.1	3194967.2	3194967.3	3194967.4	3194967.5
Total Recoverable Lead	mg/kg dry wt	2,100	20	110	181	99

	Sample Name:	1090A B8/1 B 0.0 07-Mar-2023
	Lab Number:	3194967.6
Total Recoverable Lead	mg/kg dry wt	450

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-6
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%.	-	1-6
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-6
Total Recoverable Lead	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.4 mg/kg dry wt	1-6

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 08-Mar-2023 and 10-Mar-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

Graham Corban MSc Tech (Hons)
Client Services Manager - Environmental

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Quality Assurance Report

Client:	Hail Environmental	**Lab No:**	3194967 QCPv1
Contact:	Dave Bull	**Date Received:**	08-Mar-2023
	C/- Hail Environmental	**Date Reported:**	10-Mar-2023
	PO Box 13113	**Quote No:**	72619
	Tauranga Central	**Order No:**	
	Tauranga 3141	**Client Reference:**	1090A
		Submitted By:	Anna Carter

Blank QCs

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.66

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

50x Manual Dilution Digest Blank PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.78

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

100x Manual Dilution Digest Blank PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.82

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.8 ± 0.26	-0.80 – 0.80	No

Reference Material QCs

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.17

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	21.2 ± 3.2	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.33

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	24.4 ± 3.7	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.70

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	22.3 ± 3.4	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.79

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.0 ± 3.0	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.83

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.2 ± 3.1	13.2 – 30	No

Replicates

WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8363.27

		Replicate 1	Replicate 2	Pass/Fail
Total Recoverable Lead	mg/kg dry wt	110 ± 17	100 ± 15	Pass

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Certificate of Analysis

SPv1

Client:	Hail Environmental	**Lab No:**	3197666
Contact:	Dave Bull	**Date Received:**	10-Mar-2023
	C/- Hail Environmental	**Date Reported:**	15-Mar-2023
	PO Box 13113	**Quote No:**	72619
	Tauranga Central	**Order No:**	
	Tauranga 3141	**Client Reference:**	1090A
		Submitted By:	Anna Carter

Sample Type: Soil

Sample Name:		1090A B1/1 A 0.1 09-Mar-2023	1090A B2/2 A 0.1 09-Mar-2023	1090A B2/2 A 0.0 07-Mar-2023	1090A B2/2 C 0.3 09-Mar-2023	1090A B4/1 A 0.2 09-Mar-2023
Lab Number:		3197666.1	3197666.2	3197666.3	3197666.4	3197666.5
Total Recoverable Lead	mg/kg dry wt	31	1,340	2,100	640	71

Sample Name:		1090A B10/1 A 0.1 09-Mar-2023	1090A B11/1 A 0.2 09-Mar-2023	1090A B11/1 A 0.0 09-Mar-2023	1090A B11/2 A 0.1 09-Mar-2023	1090A B15/1 A 0.0 09-Mar-2023
Lab Number:		3197666.6	3197666.7	3197666.8	3197666.9	3197666.10
Total Recoverable Lead	mg/kg dry wt	47	390	560	210	770

Sample Name:		1090A B15/2 A 0.1 09-Mar-2023	1090A B17/1 A 0.2 09-Mar-2023	1090A B17/2 A 0.2 09-Mar-2023	1090A B19/1 A 0.1 09-Mar-2023	1090A B21/1 A 0.0 09-Mar-2023
Lab Number:		3197666.11	3197666.12	3197666.13	3197666.14	3197666.15
Total Recoverable Lead	mg/kg dry wt	880	108	34	290	1,180

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-15
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%.	-	1-15
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-15
Total Recoverable Lead	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.4 mg/kg dry wt	1-15

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 13-Mar-2023 and 15-Mar-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

K Harrison

Kim Harrison MSc
Client Services Manager - Environmental

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Quality Assurance Report

Client:	Hail Environmental	**Lab No:**	3197666 QCPv1
Contact:	Dave Bull C/- Hail Environmental PO Box 13113 Tauranga Central Tauranga 3141	**Date Received:**	10-Mar-2023
		Date Reported:	15-Mar-2023
		Quote No:	72619
		Order No:	
		Client Reference:	1090A
		Submitted By:	Anna Carter

Blank QCs

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8379.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8379.40

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8380.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8380.23

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8381.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8381.70

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Reference Material QCs

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8379.17

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	22.5 ± 3.4	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8379.36

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	21.4 ± 3.3	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8379.63

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	23.3 ± 3.5	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8380.17

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	22.0 ± 3.4	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8380.65

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.8 ± 3.2	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8380.67				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.9 ± 3.2	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8381.17				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	22.5 ± 3.4	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8381.35				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.7 ± 3.1	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8381.66				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	24.6 ± 3.7	13.2 – 30	No

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Certificate of Analysis

Client:	Hail Environmental	**Lab No:**	3203831 SPv3
Contact:	Dave Bull	**Date Received:**	16-Mar-2023
	C/- Hail Environmental	**Date Reported:**	21-Mar-2023
	PO Box 13113	**Quote No:**	72619
	Tauranga Central	**Order No:**	
	Tauranga 3141	**Client Reference:**	1090A
		Submitted By:	Anna Carter

Sample Type: Soil

	Sample Name:	1090A B21/2 A 0.0	1090A B23/1 B 0.1	1090A B27/1 A 0.1	1090A B28/1 A 0.0	1090A B28/2 A 0.0
	Lab Number:	3203831.1	3203831.2	3203831.3	3203831.4	3203831.5
Total Recoverable Lead	mg/kg dry wt	810	160	23	99	104
	Sample Name:	1090A B30/1 A 0.0	1090A B32/2 A 0.1	1090A B35/1 A 0.0	1090A B36/1 A 0.1	1090A B37/1 A 0.0
	Lab Number:	3203831.6	3203831.7	3203831.8	3203831.9	3203831.10
Total Recoverable Lead	mg/kg dry wt	69	58	470	33	116
	Sample Name:	1090A B38/1 A 0.0	1090A B42/1 A 0.1	1090A B42/2 A 0.1	1090A B44/1 A0.0	1090A B44/2 A 0.1
	Lab Number:	3203831.11	3203831.12	3203831.13	3203831.14	3203831.15
Total Recoverable Lead	mg/kg dry wt	280	39	71	49	27
	Sample Name:	1090A B45/1 A 0.0	1090A B45/2 A 0.1	1090A B46/1 A 0.0	1090A B46/2 A 0.1	1090A B47/1 A 0.0
	Lab Number:	3203831.16	3203831.17	3203831.18	3203831.19	3203831.20
Total Recoverable Lead	mg/kg dry wt	56	40	49	34	49
	Sample Name:	1090A B47/2 A 0.1	1090A B48/1 A 0.0	1090A B48/2 A 0.1	1090A B50/1 A 0.0	1090A B51/1 A 0.1
	Lab Number:	3203831.21	3203831.22	3203831.23	3203831.24	3203831.25
Total Recoverable Lead	mg/kg dry wt	70	65	53	38	22
	Sample Name:	1090A B52/1 A 0.0	1090A B52/2 A 0.1	1090A B53/1 A 0.0	1090A B55/1 A 0.0	1090A B55/2 A 0.1
	Lab Number:	3203831.26	3203831.27	3203831.28	3203831.29	3203831.30
Total Recoverable Lead	mg/kg dry wt	65	250	26	101	117
	Sample Name:	1090A B56/1 A 0.1	1090A B56/2 A 0.0	1090A B59/1 A 0.0	1090A B65/1 A 0.1	1090A B65/2 A 0.0
	Lab Number:	3203831.31	3203831.32	3203831.33	3203831.34	3203831.35
Total Recoverable Lead	mg/kg dry wt	55	111	1,970	79	67
	Sample Name:	1090A B69/1 A 0.1	1090A B75/1 A 0.0	1090A S3/1 A 0.1	1090A S4/1 A 0.0	1090A S5/1 A 0.1
	Lab Number:	3203831.36	3203831.37	3203831.38	3203831.39	3203831.40
Total Recoverable Lead	mg/kg dry wt	75	260	62	28	34
	Sample Name:	1090A S8/1 A 0.1	1090A Nurses Home/1 A 0.0	1090A Pavilion/1 A 0.1	1090A Ward F/1 A 0.0	1090A Ward F/2 A 0.1
	Lab Number:	3203831.41	3203831.42	3203831.43	3203831.44	3203831.45
Total Recoverable Lead	mg/kg dry wt	34	36	22	47	64

Sample Type: Soil			
	Sample Name:	1090A Ward H/1 A 0.0	1090A Ward H/2 A 0.1
	Lab Number:	3203831.46	3203831.47
Total Recoverable Lead	mg/kg dry wt	51	37

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-47
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%.	-	1-47
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-47
Total Recoverable Lead	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.4 mg/kg dry wt	1-47

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 17-Mar-2023 and 21-Mar-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Kim Harrison MSc
Client Services Manager - Environmental

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Quality Assurance Report

Client:	Hail Environmental	**Lab No:**	3203831 QCPv1
Contact:	Dave Bull	**Date Received:**	16-Mar-2023
	C/- Hail Environmental	**Date Reported:**	21-Mar-2023
	PO Box 13113	**Quote No:**	72619
	Tauranga Central	**Order No:**	
	Tauranga 3141	**Client Reference:**	1090A
		Submitted By:	Anna Carter

Blank QCs

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8403.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8403.51

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8404.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.27	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8404.36

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8405.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8405.26

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

50x Manual Dilution Digest Blank PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8405.64

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8408.64

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.58

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

50x Manual Dilution Digest Blank PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.78

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No

Reference Material QCs

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8403.17		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.0 ± 3.0	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8403.29		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	21.7 ± 3.3	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8403.67		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	22.1 ± 3.4	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8404.17		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	22.4 ± 3.4	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8404.26		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.8 ± 3.2	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8404.68		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	21.5 ± 3.3	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8405.17		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.1 ± 3.1	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8405.20		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.6 ± 3.1	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8405.42		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	19.2 ± 2.9	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8405.65		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	19.9 ± 3.0	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8408.65		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	20.9 ± 3.2	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.17		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	23.4 ± 3.6	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.33		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	21.1 ± 3.2	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.66		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	18.6 ± 2.8	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.70		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Lead	mg/kg dry wt	22.6 ± 3.4	13.2 – 30	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8409.79				
		Results	**Control Limits**	**Outside Limit (Yes/No)**
Total Recoverable Lead	mg/kg dry wt	22.3 ± 3.4	13.2 – 30	No

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Certificate of Analysis

Client:	Hail Environmental	**Lab No:**	3192159	SPv1
Contact:	Dave Bull	**Date Received:**	07-Mar-2023	
	C/- Hail Environmental	**Date Reported:**	14-Mar-2023	
	PO Box 13113	**Quote No:**	72619	
	Tauranga Central	**Order No:**	1090A	
	Tauranga 3141	**Client Reference:**	1090A	
		Submitted By:	Anna Carter	

Sample Type: Soil

	Sample Name:	COMP 01 06-Mar-2023	COMP 02 06-Mar-2023	COMP 03 06-Mar-2023	COMP 04 06-Mar-2023	COMP 05 06-Mar-2023
	Lab Number:	3192159.1	3192159.2	3192159.3	3192159.4	3192159.5
Individual Tests						
Dry Matter	g/100g as rcvd	58	65	65	83	63
pH*	pH Units	5.4	5.4	5.8	6.0	5.9
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	4	4	6	5	5
Total Recoverable Cadmium	mg/kg dry wt	0.46	0.29	0.27	0.60	0.32
Total Recoverable Chromium	mg/kg dry wt	6	6	9	13	8
Total Recoverable Copper	mg/kg dry wt	16	15	28	36	26
Total Recoverable Lead	mg/kg dry wt	18.7	18.1	26	41	71
Total Recoverable Nickel	mg/kg dry wt	2	3	5	7	4
Total Recoverable Zinc	mg/kg dry wt	63	64	95	135	120
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
alpha-BHC	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
beta-BHC	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
delta-BHC	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
gamma-BHC (Lindane)	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
cis-Chlordane	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
trans-Chlordane	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
2,4'-DDD	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
4,4'-DDD	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
2,4'-DDE	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
4,4'-DDE	mg/kg dry wt	< 0.017	0.016	< 0.015	< 0.012	< 0.016
2,4'-DDT	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
4,4'-DDT	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Total DDT Isomers	mg/kg dry wt	< 0.11	< 0.09	< 0.09	< 0.07	< 0.10
Dieldrin	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Endosulfan I	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Endosulfan II	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Endosulfan sulphate	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Endrin	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Endrin aldehyde	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Endrin ketone	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Heptachlor	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Heptachlor epoxide	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Hexachlorobenzene	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016
Methoxychlor	mg/kg dry wt	< 0.017	< 0.015	< 0.015	< 0.012	< 0.016

Sample Type: Soil						
Sample Name:		COMP 06 06-Mar-2023	COMP 07 06-Mar-2023	COMP 08 06-Mar-2023	COMP 09 06-Mar-2023	COMP 10 06-Mar-2023
Lab Number:		3192159.6	3192159.7	3192159.8	3192159.9	3192159.10
Individual Tests						
Dry Matter	g/100g as rcvd	58	64	60	68	58
pH*	pH Units	5.9	5.9	5.7	6.0	5.9
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	6	5	6	6	-
Total Recoverable Cadmium	mg/kg dry wt	0.40	0.28	0.52	0.57	-
Total Recoverable Chromium	mg/kg dry wt	11	8	11	10	-
Total Recoverable Copper	mg/kg dry wt	26	23	30	38	-
Total Recoverable Lead	mg/kg dry wt	17.0	14.9	16.7	18.1	-
Total Recoverable Nickel	mg/kg dry wt	8	4	5	5	-
Total Recoverable Zinc	mg/kg dry wt	104	79	96	104	-
Heavy Metals with Mercury, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	-	-	-	-	5
Total Recoverable Cadmium	mg/kg dry wt	-	-	-	-	0.31
Total Recoverable Chromium	mg/kg dry wt	-	-	-	-	7
Total Recoverable Copper	mg/kg dry wt	-	-	-	-	30
Total Recoverable Lead	mg/kg dry wt	-	-	-	-	65
Total Recoverable Mercury	mg/kg dry wt	-	-	-	-	0.11
Total Recoverable Nickel	mg/kg dry wt	-	-	-	-	5
Total Recoverable Zinc	mg/kg dry wt	-	-	-	-	142
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
alpha-BHC	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
beta-BHC	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
delta-BHC	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
gamma-BHC (Lindane)	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
cis-Chlordane	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
trans-Chlordane	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
2,4'-DDD	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
4,4'-DDD	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
2,4'-DDE	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
4,4'-DDE	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
2,4'-DDT	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
4,4'-DDT	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Total DDT Isomers	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.09	< 0.11
Dieldrin	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Endosulfan I	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Endosulfan II	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Endosulfan sulphate	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Endrin	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Endrin aldehyde	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Endrin ketone	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Heptachlor	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Heptachlor epoxide	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Hexachlorobenzene	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017
Methoxychlor	mg/kg dry wt	< 0.017	< 0.016	< 0.017	< 0.015	< 0.017

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-10

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Soil Prep Dry & Sieve for Agriculture	Air dried at 35°C and sieved, <2mm fraction.	-	1-10
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 4 mg/kg dry wt	1-9
Heavy Metals with Mercury, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 4 mg/kg dry wt	10
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	1-10
Dry Matter (Env)	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	1-10
pH*	1:2 (v/v) soil : water slurry followed by potentiometric determination of pH. In-house.	0.1 pH Units	1-10

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 08-Mar-2023 and 14-Mar-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Ara Heron BSc (Tech)
Client Services Manager - Environmental

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Quality Assurance Report

Client:	Hail Environmental	**Lab No:**	3192159 QCPv1
Contact:	Dave Bull	**Date Received:**	07-Mar-2023
	C/- Hail Environmental	**Date Reported:**	14-Mar-2023
	PO Box 13113	**Quote No:**	72619
	Tauranga Central	**Order No:**	1090A
	Tauranga 3141	**Client Reference:**	1090A
		Submitted By:	Anna Carter

Sample Specific QCs

Organochlorine Pesticides Screening in Soil

		3192159.1	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	115	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.2	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	118	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.3	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	116	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.4	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	116	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.5	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	113	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.6	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	120	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.7	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	117	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.8	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	96	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.9	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	112	40 – 120	No

Organochlorine Pesticides Screening in Soil

		3192159.10	Control Limits	Outside Limit (Yes/No)
2,4,5,6-tetrachloro-m-xylene	%	116	40 – 120	No

Blank QCs

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.16

		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Cadmium	mg/kg dry wt	< 0.10 ± 0.066	-0.100 – 0.100	No
Total Recoverable Chromium	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.16				
		Results	**Control Limits**	**Outside Limit (Yes/No)**
Total Recoverable Copper	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No
Total Recoverable Nickel	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Zinc	mg/kg dry wt	< 4 ± 2.7	-4.0 – 4.0	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.59				
		Results	**Control Limits**	**Outside Limit (Yes/No)**
Total Recoverable Arsenic	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Cadmium	mg/kg dry wt	< 0.10 ± 0.066	-0.100 – 0.100	No
Total Recoverable Chromium	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Copper	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.27	-0.40 – 0.40	No
Total Recoverable Nickel	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Zinc	mg/kg dry wt	< 4 ± 2.7	-4.0 – 4.0	No

50x Manual Dilution Digest Blank PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.78				
		Results	**Control Limits**	**Outside Limit (Yes/No)**
Total Recoverable Arsenic	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Cadmium	mg/kg dry wt	< 0.10 ± 0.066	-0.100 – 0.100	No
Total Recoverable Chromium	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Copper	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No
Total Recoverable Nickel	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Zinc	mg/kg dry wt	< 4 ± 2.7	-4.0 – 4.0	No

Blank 1 PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7152.1				
		Results	**Control Limits**	**Outside Limit (Yes/No)**
Aldrin	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
alpha-BHC	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
beta-BHC	mg/kg dry wt	< 0.010 ± 0.0028	0.0 – 0.0100	No
delta-BHC	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
cis-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
trans-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
2,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
4,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
2,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
4,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0023	0.0 – 0.0100	No
2,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0021	0.0 – 0.0100	No
4,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0017	0.0 – 0.0100	No
Dieldrin	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan I	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Endosulfan II	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan sulphate	mg/kg dry wt	< 0.010 ± 0.0013	0.0 – 0.0100	No
Endrin	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No
Endrin aldehyde	mg/kg dry wt	< 0.010 ± 0.0019	0.0 – 0.0100	No
Endrin ketone	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
Heptachlor	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No

Blank 1 PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7152.1				
		Results	Control Limits	Outside Limit (Yes/No)
Heptachlor epoxide	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
Hexachlorobenzene	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Methoxychlor	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.16				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Cadmium	mg/kg dry wt	< 0.10 ± 0.066	-0.100 – 0.100	No
Total Recoverable Chromium	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Copper	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No
Total Recoverable Mercury	mg/kg dry wt	< 0.10 ± 0.065	-0.100 – 0.100	No
Total Recoverable Nickel	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Zinc	mg/kg dry wt	< 4 ± 2.7	-4.0 – 4.0	No

Digest Blank 2 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.28				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Cadmium	mg/kg dry wt	< 0.10 ± 0.066	-0.100 – 0.100	No
Total Recoverable Chromium	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Copper	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No
Total Recoverable Mercury	mg/kg dry wt	< 0.10 ± 0.065	-0.100 – 0.100	No
Total Recoverable Nickel	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Zinc	mg/kg dry wt	< 4 ± 2.7	-4.0 – 4.0	No

50x Manual Dilution Digest Blank PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.81				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Cadmium	mg/kg dry wt	< 0.10 ± 0.066	-0.100 – 0.100	No
Total Recoverable Chromium	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Copper	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No
Total Recoverable Mercury	mg/kg dry wt	< 0.10 ± 0.065	-0.100 – 0.100	No
Total Recoverable Nickel	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Zinc	mg/kg dry wt	< 4 ± 2.7	-4.0 – 4.0	No

Blank 1 PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7153.1				
		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
alpha-BHC	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
beta-BHC	mg/kg dry wt	< 0.010 ± 0.0028	0.0 – 0.0100	No
delta-BHC	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
cis-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
trans-Chlordane	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No
2,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
4,4'-DDD	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
2,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0030	0.0 – 0.0100	No

Blank 1 PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7153.1				
		Results	Control Limits	Outside Limit (Yes/No)
4,4'-DDE	mg/kg dry wt	< 0.010 ± 0.0023	0.0 – 0.0100	No
2,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0021	0.0 – 0.0100	No
4,4'-DDT	mg/kg dry wt	< 0.010 ± 0.0017	0.0 – 0.0100	No
Dieldrin	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan I	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Endosulfan II	mg/kg dry wt	< 0.010 ± 0.0026	0.0 – 0.0100	No
Endosulfan sulphate	mg/kg dry wt	< 0.010 ± 0.0013	0.0 – 0.0100	No
Endrin	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No
Endrin aldehyde	mg/kg dry wt	< 0.010 ± 0.0019	0.0 – 0.0100	No
Endrin ketone	mg/kg dry wt	< 0.010 ± 0.0024	0.0 – 0.0100	No
Heptachlor	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Heptachlor epoxide	mg/kg dry wt	< 0.010 ± 0.0031	0.0 – 0.0100	No
Hexachlorobenzene	mg/kg dry wt	< 0.010 ± 0.0029	0.0 – 0.0100	No
Methoxychlor	mg/kg dry wt	< 0.010 ± 0.00048	0.0 – 0.0100	No

Digest Blank 1 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8374.62				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Cadmium	mg/kg dry wt	< 0.10 ± 0.066	-0.100 – 0.100	No
Total Recoverable Chromium	mg/kg dry wt	< 2 ± 1.3	-2.0 – 2.0	No
Total Recoverable Copper	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Lead	mg/kg dry wt	< 0.4 ± 0.26	-0.40 – 0.40	No
Total Recoverable Nickel	mg/kg dry wt	< 2 ± 1.4	-2.0 – 2.0	No
Total Recoverable Zinc	mg/kg dry wt	< 4 ± 2.7	-4.0 – 4.0	No

QC Spike QCs

LCS OC/PAH PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7152.2				
		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	100 ± 31	86 – 115	No
alpha-BHC	%	96 ± 29	82 – 111	No
beta-BHC	%	93 ± 36	72 – 109	No
delta-BHC	%	92 ± 32	81 – 108	No
gamma-BHC (Lindane)	%	92 ± 26	81 – 110	No
cis-Chlordane	%	86 ± 28	84 – 114	No
trans-Chlordane	%	96 ± 29	80 – 115	No
2,4'-DDD	%	96 ± 35	85 – 116	No
4,4'-DDD	%	101 ± 49	88 – 122	No
2,4'-DDE	%	94 ± 31	86 – 118	No
4,4'-DDE	%	94 ± 48	62 – 120	No
2,4'-DDT	%	91 ± 48	87 – 125	No
4,4'-DDT	%	83 ± 49	71 – 124	No
Dieldrin	%	103 ± 46	83 – 114	No
Endosulfan I	%	94 ± 34	85 – 116	No
Endosulfan II	%	93 ± 41	83 – 126	No
Endosulfan sulphate	%	96 ± 60	83 – 120	No
Endrin	%	101 ± 67	81 – 118	No
Endrin aldehyde	%	105 ± 59	81 – 115	No

LCS OC/PAH PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7152.2				
		Results	Control Limits	Outside Limit (Yes/No)
Endrin ketone	%	91 ± 44	79 – 117	No
Heptachlor	%	98 ± 34	82 – 114	No
Heptachlor epoxide	%	99 ± 28	86 – 115	No
Hexachlorobenzene	%	93 ± 32	86 – 118	No
Methoxychlor	%	96 ± 64	76 – 128	No

LCS OC/PAH PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7153.2				
		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	105 ± 32	86 – 115	No
alpha-BHC	%	102 ± 31	82 – 111	No
beta-BHC	%	97 ± 37	72 – 109	No
delta-BHC	%	105 ± 36	81 – 108	No
gamma-BHC (Lindane)	%	99 ± 28	81 – 110	No
cis-Chlordane	%	98 ± 32	84 – 114	No
trans-Chlordane	%	108 ± 33	80 – 115	No
2,4'-DDD	%	96 ± 35	85 – 116	No
4,4'-DDD	%	99 ± 48	88 – 122	No
2,4'-DDE	%	99 ± 32	86 – 118	No
4,4'-DDE	%	100 ± 51	62 – 120	No
2,4'-DDT	%	98 ± 51	87 – 125	No
4,4'-DDT	%	97 ± 57	71 – 124	No
Dieldrin	%	110 ± 49	83 – 114	No
Endosulfan I	%	105 ± 38	85 – 116	No
Endosulfan II	%	95 ± 42	83 – 126	No
Endosulfan sulphate	%	101 ± 63	83 – 120	No
Endrin	%	105 ± 70	81 – 118	No
Endrin aldehyde	%	104 ± 59	81 – 115	No
Endrin ketone	%	97 ± 47	79 – 117	No
Heptachlor	%	110 ± 38	82 – 114	No
Heptachlor epoxide	%	106 ± 30	86 – 115	No
Hexachlorobenzene	%	100 ± 35	86 – 118	No
Methoxychlor	%	103 ± 68	76 – 128	No

Sample Spike QCs

Spike OC/PAH PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7152.21				
		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	99 ± 30	85 – 118	No
alpha-BHC	%	95 ± 29	83 – 115	No
beta-BHC	%	94 ± 36	73 – 113	No
delta-BHC	%	91 ± 31	75 – 116	No
gamma-BHC (Lindane)	%	91 ± 26	80 – 113	No
cis-Chlordane	%	88 ± 29	82 – 117	No
trans-Chlordane	%	98 ± 30	80 – 120	No
2,4'-DDD	%	96 ± 35	84 – 119	No
4,4'-DDD	%	102 ± 49	87 – 125	No
2,4'-DDE	%	93 ± 30	84 – 118	No
4,4'-DDE	%	97 ± 49	68 – 123	No

Spike OC/PAH PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7152.21		Results	Control Limits	Outside Limit (Yes/No)
2,4'-DDT	%	87 ± 46	85 – 126	No
4,4'-DDT	%	81 ± 47	72 – 123	No
Dieldrin	%	102 ± 45	82 – 116	No
Endosulfan I	%	98 ± 36	84 – 118	No
Endosulfan II	%	92 ± 41	77 – 118	No
Endosulfan sulphate	%	97 ± 61	79 – 125	No
Endrin	%	101 ± 67	80 – 121	No
Endrin aldehyde	%	104 ± 59	79 – 117	No
Endrin ketone	%	89 ± 43	76 – 119	No
Heptachlor	%	96 ± 33	82 – 119	No
Heptachlor epoxide	%	98 ± 28	83 – 116	No
Hexachlorobenzene	%	93 ± 32	84 – 121	No
Methoxychlor	%	96 ± 64	77 – 130	No

Spike OC/PAH PrepWS xsSHOC - Organochlorine Pesticides Soil Analysis: 7153.27		Results	Control Limits	Outside Limit (Yes/No)
Aldrin	%	101 ± 31	85 – 118	No
alpha-BHC	%	100 ± 31	83 – 115	No
beta-BHC	%	97 ± 37	73 – 113	No
delta-BHC	%	102 ± 35	75 – 116	No
gamma-BHC (Lindane)	%	95 ± 27	80 – 113	No
cis-Chlordane	%	95 ± 31	82 – 117	No
trans-Chlordane	%	105 ± 32	80 – 120	No
2,4'-DDD	%	110 ± 40	84 – 119	No
4,4'-DDD	%	116 ± 56	87 – 125	No
2,4'-DDE	%	98 ± 32	84 – 118	No
4,4'-DDE	%	100 ± 51	68 – 123	No
2,4'-DDT	%	60 ± 32	85 – 126	**Yes** #1
4,4'-DDT	%	43 ± 25	72 – 123	**Yes** #1
Dieldrin	%	107 ± 48	82 – 116	No
Endosulfan I	%	102 ± 37	84 – 118	No
Endosulfan II	%	93 ± 41	77 – 118	No
Endosulfan sulphate	%	97 ± 61	79 – 125	No
Endrin	%	103 ± 68	80 – 121	No
Endrin aldehyde	%	105 ± 59	79 – 117	No
Endrin ketone	%	89 ± 43	76 – 119	No
Heptachlor	%	101 ± 35	82 – 119	No
Heptachlor epoxide	%	102 ± 29	83 – 116	No
Hexachlorobenzene	%	98 ± 34	84 – 121	No
Methoxychlor	%	56 ± 37	77 – 130	**Yes** #1

Reference Material QCs

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.17		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.8 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.298 ± 0.078	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	9.0 ± 2.0	7.0 – 10.8	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.17				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Copper	mg/kg dry wt	12.3 ± 2.2	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	23.4 ± 3.6	13.2 – 30	No
Total Recoverable Nickel	mg/kg dry wt	3.8 ± 1.4	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	61.3 ± 5.1	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.28				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.7 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.324 ± 0.080	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	9.2 ± 2.0	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	13.6 ± 2.3	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	22.9 ± 3.5	13.2 – 30	No
Total Recoverable Nickel	mg/kg dry wt	4.1 ± 1.5	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	63.7 ± 5.3	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.69				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.3 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.302 ± 0.078	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	9.3 ± 2.0	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	12.8 ± 2.2	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	21.5 ± 3.3	13.2 – 30	No
Total Recoverable Nickel	mg/kg dry wt	3.8 ± 1.4	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	60.3 ± 5.0	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8362.79				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.6 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.293 ± 0.077	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	9.1 ± 2.0	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	12.2 ± 2.2	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	24.0 ± 3.6	13.2 – 30	No
Total Recoverable Nickel	mg/kg dry wt	3.9 ± 1.4	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	58.2 ± 4.9	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.17				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.8 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.319 ± 0.079	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	9.1 ± 2.0	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	12.9 ± 2.2	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	23.3 ± 3.5	13.2 – 30	No
Total Recoverable Mercury	mg/kg dry wt	0.108 ± 0.067	0.060 – 0.160	No
Total Recoverable Nickel	mg/kg dry wt	4.0 ± 1.5	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	63.8 ± 5.3	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.33				
		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.2 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.319 ± 0.079	0.25 – 0.37	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.33		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Chromium	mg/kg dry wt	7.6 ± 1.8	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	11.6 ± 2.1	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	21.7 ± 3.3	13.2 – 30	No
Total Recoverable Mercury	mg/kg dry wt	0.120 ± 0.068	0.060 – 0.160	No
Total Recoverable Nickel	mg/kg dry wt	3.3 ± 1.4	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	56.5 ± 4.8	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.71		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	4.5 ± 1.5	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.279 ± 0.076	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	7.6 ± 1.8	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	10.0 ± 1.9	10.5 – 14.5	**Yes** #2
Total Recoverable Lead	mg/kg dry wt	21.1 ± 3.2	13.2 – 30	No
Total Recoverable Mercury	mg/kg dry wt	0.100 ± 0.067	0.060 – 0.160	No
Total Recoverable Nickel	mg/kg dry wt	3.6 ± 1.4	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	51.3 ± 4.5	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8364.82		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.5 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.326 ± 0.080	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	8.7 ± 1.9	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	12.5 ± 2.2	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	22.7 ± 3.5	13.2 – 30	No
Total Recoverable Mercury	mg/kg dry wt	0.135 ± 0.069	0.060 – 0.160	No
Total Recoverable Nickel	mg/kg dry wt	3.7 ± 1.4	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	62.5 ± 5.2	48 – 72	No

QC A6 PrepWS esDig - WS: High Volume Environmental Soils by ICP-MS (HVesTR): 8374.63		Results	Control Limits	Outside Limit (Yes/No)
Total Recoverable Arsenic	mg/kg dry wt	5.5 ± 1.6	4.2 – 6.1	No
Total Recoverable Cadmium	mg/kg dry wt	0.329 ± 0.080	0.25 – 0.37	No
Total Recoverable Chromium	mg/kg dry wt	9.3 ± 2.0	7.0 – 10.8	No
Total Recoverable Copper	mg/kg dry wt	13.6 ± 2.3	10.5 – 14.5	No
Total Recoverable Lead	mg/kg dry wt	22.5 ± 3.4	13.2 – 30	No
Total Recoverable Nickel	mg/kg dry wt	4.1 ± 1.5	2.8 – 5.1	No
Total Recoverable Zinc	mg/kg dry wt	64.2 ± 5.3	48 – 72	No

Analyst's Comments

#1 The sample spike recovery for this analyte was below the acceptable recovery range of the method. The affected sample was repeated for re-injection. The remaining sample results were accepted because the Laboratory Control Sample (LCS) spike recovery was within the expected ranges.

#2 The recovery for this analyte was outside the acceptable recovery range of the method. The corresponding sample result was accepted because the related recovery in the other QC material analysed was within the expected range.

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Certificate of Analysis

SPv1

Client:	Hail Environmental	**Lab No:**	3351767
Contact:	Dave Bull	**Date Received:**	28-Aug-2023
	C/- Hail Environmental	**Date Reported:**	05-Sep-2023
	PO Box 13113	**Quote No:**	72619
	Tauranga Central	**Order No:**	1090A
	Tauranga 3141	**Client Reference:**	Tokanui
		Submitted By:	Anna Carter

Sample Type: Soil

Sample Name:		B2/3 A 0.0 28-Aug-2023	B2/3 A 0.1 28-Aug-2023	B2/3 A 0.2 28-Aug-2023	B2/3 A 0.3 28-Aug-2023	B2/3 A 0.4 28-Aug-2023
Lab Number:		3351767.1	3351767.2	3351767.3	3351767.4	3351767.5
TCLP Weight of Sample Taken	g	51	50	50	50	50
TCLP Initial Sample pH	pH Units	6.5	6.1	6.0	5.9	6.1
TCLP Acid Adjusted Sample pH	pH Units	1.6	1.7	1.6	1.7	1.6
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	5.0	5.0	5.0	5.0	5.0
TCLP Post Extraction Sample pH	pH Units	5.0	5.0	5.0	5.0	5.0
Total Recoverable Lead	mg/kg dry wt	1,860	730	620	340	210

Sample Name:		B2/3 B 0.0 28-Aug-2023	DUP01 28-Aug-2023	B11/3 A 0.0 28-Aug-2023	B11/3 A 0.1 28-Aug-2023	B59/3 A 0.0 28-Aug-2023
Lab Number:		3351767.6	3351767.7	3351767.8	3351767.9	3351767.10
TCLP Weight of Sample Taken	g	50	50	50	50	50
TCLP Initial Sample pH	pH Units	5.6	6.5	7.1	7.1	6.6
TCLP Acid Adjusted Sample pH	pH Units	1.6	1.6	1.8	1.8	1.7
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	5.0	5.0	5.0	5.0	5.0
TCLP Post Extraction Sample pH	pH Units	4.9	5.0	5.0	5.0	5.0
Total Recoverable Lead	mg/kg dry wt	330	1,690	1,030	640	4,800

Sample Name:		B59/3 A 0.1 28-Aug-2023	B59/3 A 0.2 28-Aug-2023	B59/3 A 0.3 28-Aug-2023
Lab Number:		3351767.11	3351767.12	3351767.13
TCLP Weight of Sample Taken	g	50	50	50
TCLP Initial Sample pH	pH Units	6.2	6.1	6.1
TCLP Acid Adjusted Sample pH	pH Units	1.6	1.6	1.6
TCLP Extractant Type*		NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	5.0	5.0	5.0
TCLP Post Extraction Sample pH	pH Units	4.9	4.9	4.9
Total Recoverable Lead	mg/kg dry wt	1,040	1,370	96

Sample Type: Aqueous

Sample Name:		B2/3 A 0.0 [TCLP Extract]	B2/3 A 0.1 [TCLP Extract]	B2/3 A 0.2 [TCLP Extract]	B2/3 A 0.3 [TCLP Extract]	B2/3 A 0.4 [TCLP Extract]
Lab Number:		3351767.14	3351767.15	3351767.16	3351767.17	3351767.18
Total Lead	g/m^3	2.4	0.83	1.18	0.41	0.20

Sample Type: Aqueous						
	Sample Name:	B2/3 B 0.0 [TCLP Extract]	DUP01 [TCLP Extract]	B11/3 A 0.0 [TCLP Extract]	B11/3 A 0.1 [TCLP Extract]	B59/3 A 0.0 [TCLP Extract]
	Lab Number:	3351767.19	3351767.20	3351767.21	3351767.22	3351767.23
Total Lead	g/m^3	0.164	2.1	0.164	0.042	6.9

	Sample Name:	B59/3 A 0.1 [TCLP Extract]	B59/3 A 0.2 [TCLP Extract]	B59/3 A 0.3 [TCLP Extract]
	Lab Number:	3351767.24	3351767.25	3351767.26
Total Lead	g/m^3	1.55	0.58	0.026

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-13
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%.	-	1-13
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-13
Total Recoverable Lead	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.4 mg/kg dry wt	1-13
TCLP Profile*	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1311.	-	1-13
TCLP Profile			
TCLP Weight of Sample Taken	Gravimetric. US EPA 1311.	0.1 g	1-13
TCLP Initial Sample pH	pH meter. US EPA 1311.	0.1 pH Units	1-13
TCLP Acid Adjusted Sample pH	pH meter. US EPA 1311.	0.1 pH Units	1-13
TCLP Extractant Type*	US EPA 1311.	-	1-13
TCLP Extraction Fluid pH	pH meter. US EPA 1311.	0.1 pH Units	1-13
TCLP Post Extraction Sample pH	pH meter. US EPA 1311.	0.1 pH Units	1-13

Sample Type: Aqueous

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Total Digestion of Extracted Samples*	Nitric acid digestion. APHA 3030 E (modified) 23rd ed. 2017.	-	14-26
Total Lead	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B 23rd ed. 2017.	$0.0021 g/m^3$	14-26

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 30-Aug-2023 and 05-Sep-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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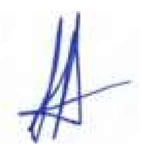

Ara Heron BSc (Tech)
Client Services Manager - Environmental

Sample ID	Reading #	Test Type	Date	Time	Method ID	Method Name	Cu Concentration	Cu Error1s	Zn Concentration	Zn Error1s	As Concentration	As Error1s	Pb Concentration	Pb Error1s	Project No.	Sample Type	Operator	Notes	Serial No.	Model
Blank	1	NORMAL	6/03/2023	9:54:28	soil-VMW	Soil	<LOD	0.00036	<LOD	0.00022	<LOD	0.00015	<LOD	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
Std	2	NORMAL	6/03/2023	9:56:25	soil-VMW	Soil	0.01324	0.00031	0.0368	0.00043	0.00744	0.00054	0.13169	0.00082	1090A	In Situ	AC	Tokanui	800224	VMW
Std	3	NORMAL	6/03/2023	9:57:56	soil-VMW	Soil	0.32189	0.00205	0.41073	0.00237	0.15006	0.00146	0.51728	0.00269	1090A	In Situ	AC	Tokanui	800224	VMW
S2 door paint	4	NORMAL	6/03/2023	10:05:15	soil-VMW	Soil	0.00243	0.0003	0.06656	0.00079	<LOD	0.00841	2.55909	0.01379	1090A	In Situ	AC	Tokanui	800224	VMW
S2 wall paint	5	NORMAL	6/03/2023	10:07:22	soil-VMW	Soil	0.00087	0.00022	0.11043	0.00094	0.00165	0.00014	0.00266	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
S2 wall paint	6	NORMAL	6/03/2023	10:28:40	soil-VMW	Soil	0.00245	0.00017	0.01083	0.00022	0.00067	0.00011	0.00495	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
XRF7	7	NORMAL	6/03/2023	10:30:10	soil-VMW	Soil	0.00277	0.00015	0.02043	0.00025	0.00069	0.00009	0.00459	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
XRF8	8	NORMAL	6/03/2023	10:31:35	soil-VMW	Soil	0.00272	0.00017	0.01263	0.00022	0.00071	0.00011	0.00434	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
XRF9	9	NORMAL	6/03/2023	10:33:29	soil-VMW	Soil	0.00218	0.00016	0.00889	0.00018	0.00072	0.0001	0.00401	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
XRF10	10	NORMAL	6/03/2023	10:36:16	soil-VMW	Soil	0.00176	0.00015	0.01805	0.00025	0.00035	0.00009	0.00346	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
XRF11	11	NORMAL	6/03/2023	10:39:26	soil-VMW	Soil	0.00238	0.00016	0.00945	0.00019	0.00053	0.00011	0.00511	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
XRF12	12	NORMAL	6/03/2023	10:41:17	soil-VMW	Soil	0.00333	0.0002	0.011	0.00023	0.00106	0.00011	0.00375	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
XRF13	13	NORMAL	6/03/2023	10:44:42	soil-VMW	Soil	0.00854	0.00025	0.02223	0.00031	0.00625	0.00026	0.03073	0.00031	1090A	In Situ	AC	Tokanui	800224	VMW
XRF14	14	NORMAL	6/03/2023	10:48:52	soil-VMW	Soil	0.00262	0.0002	0.01219	0.00025	0.00158	0.00019	0.014	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
XRF15	15	NORMAL	6/03/2023	10:51:59	soil-VMW	Soil	0.00371	0.00021	0.01234	0.00025	0.00059	0.00014	0.00685	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
XRF16	16	NORMAL	6/03/2023	10:53:56	soil-VMW	Soil	0.00329	0.00018	0.01427	0.00023	0.00083	0.0001	0.00429	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
XRF17	17	NORMAL	6/03/2023	13:46:41	soil-VMW	Soil	0.00274	0.00017	0.01043	0.0002	<LOD	0.0006	0.02329	0.00025	1090A	In Situ	AC	Tokanui	800224	VMW
XRF18	18	NORMAL	6/03/2023	13:48:37	soil-VMW	Soil	0.00265	0.00016	0.00992	0.00019	<LOD	0.00059	0.02515	0.00025	1090A	In Situ	AC	Tokanui	800224	VMW
XRF19	19	NORMAL	6/03/2023	13:51:31	soil-VMW	Soil	0.00249	0.00016	0.01036	0.0002	<LOD	0.00056	0.02001	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
XRF20	20	NORMAL	6/03/2023	13:53:20	soil-VMW	Soil	0.00242	0.00015	0.01158	0.00019	<LOD	0.0005	0.01864	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
XRF21	21	NORMAL	6/03/2023	13:54:48	soil-VMW	Soil	0.00162	0.00014	0.00942	0.00018	0.00042	0.00012	0.00913	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
XRF22	22	NORMAL	6/03/2023	13:56:09	soil-VMW	Soil	0.00327	0.00017	0.0139	0.00023	<LOD	0.00063	0.02787	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
XRF23	23	NORMAL	6/03/2023	13:58:20	soil-VMW	Soil	0.00245	0.00016	0.00868	0.00019	<LOD	0.00036	0.00755	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
XRF24	24	NORMAL	6/03/2023	14:00:20	soil-VMW	Soil	0.00171	0.00014	0.00814	0.00017	<LOD	0.00031	0.00595	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
XRF25	25	NORMAL	6/03/2023	14:02:19	soil-VMW	Soil	0.00229	0.00016	0.0069	0.00016	<LOD	0.00041	0.01098	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
XRF26	26	NORMAL	6/03/2023	14:04:00	soil-VMW	Soil	0.00198	0.00016	0.00755	0.00018	<LOD	0.00055	0.01797	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
XRF27	27	NORMAL	6/03/2023	14:05:39	soil-VMW	Soil	0.00169	0.00012	0.0061	0.00013	<LOD	0.00045	0.02028	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
XRF28	28	NORMAL	6/03/2023	14:08:17	soil-VMW	Soil	0.00093	0.00011	0.00828	0.00015	0.00117	0.00018	0.02602	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
XRF29	29	NORMAL	6/03/2023	14:10:13	soil-VMW	Soil	0.00252	0.00014	0.01164	0.00018	<LOD	0.0007	0.04553	0.00031	1090A	In Situ	AC	Tokanui	800224	VMW
XRF30	30	NORMAL	6/03/2023	14:11:41	soil-VMW	Soil	0.00097	0.0001	0.00847	0.00014	<LOD	0.00048	0.02541	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.0	31	NORMAL	6/03/2023	17:05:40	soil-VMW	Soil	0.03627	0.00045	0.19237	0.00109	<LOD	0.00172	0.18603	0.00097	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.0	32	NORMAL	6/03/2023	17:07:25	soil-VMW	Soil	0.05047	0.00053	0.31256	0.00157	<LOD	0.00176	0.18909	0.00098	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.0	33	NORMAL	6/03/2023	17:08:45	soil-VMW	Soil	0.0293	0.00048	0.32568	0.0019	<LOD	0.00314	0.45075	0.00232	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.0	34	NORMAL	6/03/2023	17:10:19	soil-VMW	Soil	0.0165	0.00032	0.2801	0.00143	<LOD	0.00172	0.1847	0.00096	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.0	35	NORMAL	6/03/2023	17:11:15	soil-VMW	Soil	0.03106	0.00039	0.45154	0.00196	<LOD	0.00179	0.22498	0.00105	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.0	36	NORMAL	6/03/2023	17:12:20	soil-VMW	Soil	0.02157	0.00034	0.19041	0.00104	<LOD	0.00136	0.1247	0.0007	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.0	37	NORMAL	6/03/2023	17:13:18	soil-VMW	Soil	0.02617	0.00038	0.34906	0.00165	<LOD	0.00163	0.17273	0.00089	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.4	38	NORMAL	6/03/2023	17:22:03	soil-VMW	Soil	0.00212	0.00015	0.00918	0.00018	0.00061	0.00008	0.00288	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.3	39	NORMAL	6/03/2023	17:26:00	soil-VMW	Soil	0.00287	0.00015	0.0157	0.00022	0.00112	0.00012	0.00902	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.2	40	NORMAL	6/03/2023	17:28:06	soil-VMW	Soil	0.01537	0.0003	0.16154	0.00095	<LOD	0.00136	0.11849	0.00069	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 A 0.1	41	NORMAL	6/03/2023	17:29:27	soil-VMW	Soil	0.00602	0.00022	0.06114	0.00052	<LOD	0.00098	0.05905	0.00045	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 B 0.0	42	NORMAL	6/03/2023	17:31:09	soil-VMW	Soil	0.00375	0.0002	0.05578	0.00052	<LOD	0.00089	0.04408	0.00039	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 C 0.0	43	NORMAL	6/03/2023	17:37:05	soil-VMW	Soil	0.00145	0.00012	0.01041	0.00016	<LOD	0.00032	0.00903	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 D 0.0	44	NORMAL	6/03/2023	17:40:22	soil-VMW	Soil	0.00174	0.00014	0.0083	0.00017	<LOD	0.00035	0.00847	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 O 0.0	45	NORMAL	6/03/2023	17:44:06	soil-VMW	Soil	0.00164	0.00013	0.01868	0.00023	<LOD	0.00032	0.00743	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 O 0.0	46	NORMAL	6/03/2023	17:47:22	soil-VMW	Soil	0.00136	0.00014	0.02402	0.00028	<LOD	0.00033	0.00708	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B2/1 O 0.0	47	NORMAL	6/03/2023	17:49:20	soil-VMW	Soil	0.00141	0.00014	0.0182	0.00024	<LOD	0.00033	0.0069	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	48	NORMAL	6/03/2023	18:00:14	soil-VMW	Soil	<LOD	0.00037	<LOD	0.00023	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	49	NORMAL	6/03/2023	18:01:28	soil-VMW	Soil	0.01554	0.00034	0.03863	0.00045	0.00668	0.00055	0.1364	0.00085	1090A	In Situ	AC	Tokanui	800224	VMW
Std	50	NORMAL	6/03/2023	18:02:42	soil-VMW	Soil	0.32619	0.00213	0.41003	0.00243	0.14829	0.0015	0.52011	0.00278	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	1	NORMAL	7/03/2023	9:21:55	soil-VMW	Soil	<LOD	0.00038	<LOD	0.00022	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	2	NORMAL	7/03/2023	9:22:59	soil-VMW	Soil	0.01039	0.00026	0.02684	0.00034	0.00697	0.00042	0.09257	0.0006	1090A	In Situ	AC	Tokanui	800224	VMW
Std	3	NORMAL	7/03/2023	9:24:34	soil-VMW	Soil	0.32888	0.00208	0.41014	0.00235	0.15026	0.00146	0.52033	0.0027	1090A	In Situ	AC	Tokanui	800224	VMW
B3 green paint	4	NORMAL	7/03/2023	9:26:25	soil-VMW	Soil	0.01427	0.00039	0.01317	0.00032	0.00134	0.00017	0.00585	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
B3 yellow paint	5	NORMAL	7/03/2023	9:28:50	soil-VMW	Soil	0.00167	0.00023	0.01854	0.00037	0.00085	0.00013	0.0022	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B1 white paint	6	NORMAL	7/03/2023	10:00:25	soil-VMW	Soil	0.00231	0.00024	0.14501	0.00112	0.00147	0.00014	0.0031	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B5 white paint	7	NORMAL	7/03/2023	10:16:58	soil-VMW	Soil	0.00133	0.00027	0.37346	0.00217	<LOD	0.00709	2.25505	0.01038	1090A	In Situ	AC	Tokanui	800224	VMW
B6 white paint	8	NORMAL	7/03/2023	10:22:43	soil-VMW	Soil	<LOD	0.00079	0.17772	0.00147	<LOD	0.00396	0.56576	0.00342	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.0	9	NORMAL	7/03/2023	10:31:32	soil-VMW	Soil	0.01025	0.00027	0.39459	0.00189	0.0011	0.00021	0.02216	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.0	10	NORMAL	7/03/2023	10:33:56	soil-VMW	Soil	0.0087	0.00023	0.3426	0.00157	<LOD	0.00062	0.02572	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.0	11	NORMAL	7/03/2023	10:35:17	soil-VMW	Soil	0.01191	0.00025	0.41834	0.00174	<LOD	0.0006	0.03031	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.0	12	NORMAL	7/03/2023	10:36:24	soil-VMW	Soil	0.01095	0.00024	0.38702	0.00162	<LOD	0.00065	0.0329	0.00028	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.0	13	NORMAL	7/03/2023	10:37:42	soil-VMW	Soil	0.01196	0.00027	0.26835	0.00136	<LOD	0.00053	0.01619	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.0	14	NORMAL	7/03/2023	10:38:46	soil-VMW	Soil	0.00761	0.00025	0.31816	0.00163	<LOD	0.00086	0.04455	0.00039	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	15	NORMAL	7/03/2023	10:42:17	soil-VMW	Soil	<LOD	0.00038	<LOD	0.00022	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	16	NORMAL	7/03/2023	10:43:38	soil-VMW	Soil	0.01357	0.00033	0.03662	0.00045	0.00708	0.00056	0.13213	0.00085	1090A	In Situ	AC	Tokanui	800224	VMW

Std	17	NORMAL	7/03/2023	10:44:35	soil-VMW	Soil	0.32741	0.00213	0.41389	0.00244	0.14985	0.00151	0.52595	0.0028	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.1	18	NORMAL	7/03/2023	10:51:41	soil-VMW	Soil	0.00409	0.00017	0.03492	0.00034	<LOD	0.00048	0.01664	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.2	19	NORMAL	7/03/2023	11:00:01	soil-VMW	Soil	0.00767	0.00021	0.04773	0.00041	<LOD	0.0012	0.11251	0.00061	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.3	20	NORMAL	7/03/2023	11:02:44	soil-VMW	Soil	0.00492	0.00019	0.05184	0.00044	<LOD	0.00057	0.02161	0.00024	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.2	21	NORMAL	7/03/2023	11:04:05	soil-VMW	Soil	0.00558	0.00019	0.04419	0.0004	<LOD	0.00092	0.06232	0.00042	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.3	22	NORMAL	7/03/2023	11:05:33	soil-VMW	Soil	0.00277	0.00017	0.03213	0.00035	<LOD	0.0005	0.0154	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.2	23	NORMAL	7/03/2023	11:08:59	soil-VMW	Soil	0.00675	0.00022	0.04325	0.00041	<LOD	0.00083	0.04484	0.00036	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.3	24	NORMAL	7/03/2023	11:13:13	soil-VMW	Soil	0.0051	0.0002	0.05158	0.00046	<LOD	0.0006	0.02203	0.00025	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.3	25	NORMAL	7/03/2023	11:15:06	soil-VMW	Soil	0.00353	0.00028	0.03389	0.00054	<LOD	0.00076	0.01659	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.4	26	NORMAL	7/03/2023	11:17:06	soil-VMW	Soil	0.00241	0.00021	0.01386	0.00029	0.00031	0.00009	0.00161	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 A 0.4	27	NORMAL	7/03/2023	11:18:04	soil-VMW	Soil	0.00164	0.00021	0.01286	0.0003	0.00065	0.0001	0.00144	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 B 0.0	28	NORMAL	7/03/2023	11:33:13	soil-VMW	Soil	0.00283	0.00016	0.02424	0.00029	<LOD	0.00034	0.0067	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 C 0.0	29	NORMAL	7/03/2023	11:34:13	soil-VMW	Soil	0.00248	0.00016	0.0179	0.00025	<LOD	0.00033	0.00668	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B5/1 D 0.0	30	NORMAL	7/03/2023	11:35:27	soil-VMW	Soil	0.00193	0.00014	0.01472	0.00022	0.00037	0.0001	0.005	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 A 0.0	31	NORMAL	7/03/2023	11:44:08	soil-VMW	Soil	0.00216	0.00015	0.02554	0.0003	<LOD	0.0004	0.00998	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 A 0.1	32	NORMAL	7/03/2023	11:49:04	soil-VMW	Soil	0.00249	0.00014	0.02445	0.00027	<LOD	0.00039	0.01158	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 A 0.2	33	NORMAL	7/03/2023	11:51:16	soil-VMW	Soil	0.00139	0.00013	0.00796	0.00016	<LOD	0.00027	0.00452	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 A 0.3	34	NORMAL	7/03/2023	11:53:05	soil-VMW	Soil	0.00149	0.00013	0.00781	0.00016	<LOD	0.00029	0.00536	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 A 0.4	35	NORMAL	7/03/2023	11:54:10	soil-VMW	Soil	0.00148	0.00014	0.00907	0.00018	<LOD	0.00032	0.00651	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 B 0.0	36	NORMAL	7/03/2023	12:00:22	soil-VMW	Soil	0.00093	0.00013	0.01144	0.00019	<LOD	0.00027	0.00419	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 C 0.0	37	NORMAL	7/03/2023	12:01:46	soil-VMW	Soil	0.00219	0.00016	0.01798	0.00026	<LOD	0.00032	0.00515	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B6/1 D 0.0	38	NORMAL	7/03/2023	12:03:34	soil-VMW	Soil	0.00151	0.00016	0.01298	0.00023	<LOD	0.00031	0.00418	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B7 green paint	39	NORMAL	7/03/2023	12:23:11	soil-VMW	Soil	<LOD	0.0028	2.07973	0.02161	<LOD	0.0331	12.39555	0.12292	1090A	In Situ	AC	Tokanui	800224	VMW
B7/1 A 0.0	40	NORMAL	7/03/2023	12:27:49	soil-VMW	Soil	0.00262	0.00024	0.06221	0.00069	<LOD	0.00077	0.01971	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B7/1 A 0.1	41	NORMAL	7/03/2023	12:34:58	soil-VMW	Soil	0.00545	0.00022	0.0461	0.00045	0.00172	0.00022	0.02271	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B7/1 B 0.0	42	NORMAL	7/03/2023	12:37:11	soil-VMW	Soil	0.00543	0.00026	0.0394	0.0005	0.00113	0.00024	0.01916	0.00029	1090A	In Situ	AC	Tokanui	800224	VMW
B7/1 B 0.0	43	NORMAL	7/03/2023	12:39:13	soil-VMW	Soil	0.0043	0.00021	0.06693	0.00058	0.00091	0.00021	0.01915	0.00025	1090A	In Situ	AC	Tokanui	800224	VMW
B7/1 C 0.0	44	NORMAL	7/03/2023	12:40:15	soil-VMW	Soil	0.00375	0.0002	0.05681	0.00052	<LOD	0.00056	0.01642	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
B7/1 D 0.0	45	NORMAL	7/03/2023	12:41:29	soil-VMW	Soil	0.00392	0.00018	0.03694	0.00037	0.00062	0.00017	0.01638	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 A 0.0	46	NORMAL	7/03/2023	12:53:40	soil-VMW	Soil	0.0035	0.0002	0.03137	0.00038	0.00152	0.00032	0.05026	0.00043	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 A 0.1	47	NORMAL	7/03/2023	12:59:00	soil-VMW	Soil	0.00224	0.00018	0.00528	0.00017	0.00067	0.0001	0.00301	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 A 0.2	48	NORMAL	7/03/2023	13:03:04	soil-VMW	Soil	0.00123	0.00016	0.0036	0.00014	0.00048	0.00008	0.00163	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 A 0.3	49	NORMAL	7/03/2023	13:04:13	soil-VMW	Soil	0.00131	0.00016	0.00387	0.00015	0.00052	0.00008	0.00163	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 B 0.0	50	NORMAL	7/03/2023	13:11:19	soil-VMW	Soil	0.00685	0.00026	0.03187	0.00042	<LOD	0.00092	0.03853	0.0004	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 C 0.0	51	NORMAL	7/03/2023	13:12:57	soil-VMW	Soil	0.00528	0.00025	0.02259	0.00036	<LOD	0.00072	0.02145	0.0003	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 D 0.0	52	NORMAL	7/03/2023	13:14:05	soil-VMW	Soil	0.00436	0.0002	0.01769	0.00027	0.00061	0.00018	0.01611	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 O 0.0	53	NORMAL	7/03/2023	13:15:28	soil-VMW	Soil	0.00194	0.00022	0.00965	0.00026	<LOD	0.00048	0.00703	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 B 0.1	54	NORMAL	7/03/2023	13:23:39	soil-VMW	Soil	0.00869	0.00023	0.03011	0.00034	<LOD	0.00076	0.03922	0.00033	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 B 0.2	55	NORMAL	7/03/2023	13:25:01	soil-VMW	Soil	0.00206	0.00016	0.00698	0.00017	0.00133	0.0001	0.00314	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 C 0.1	56	NORMAL	7/03/2023	13:30:29	soil-VMW	Soil	0.00506	0.0002	0.01728	0.00026	<LOD	0.0005	0.01442	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B8/1 C 0.2	57	NORMAL	7/03/2023	13:32:20	soil-VMW	Soil	0.00347	0.00019	0.01169	0.00022	<LOD	0.00042	0.00903	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 A 0.0	58	NORMAL	7/03/2023	13:46:38	soil-VMW	Soil	0.00174	0.00015	0.02699	0.00031	<LOD	0.00047	0.01437	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 A 0.1	59	NORMAL	7/03/2023	13:49:32	soil-VMW	Soil	0.00183	0.00015	0.02898	0.00032	0.0004	0.00008	0.00223	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 A 0.2	60	NORMAL	7/03/2023	13:50:36	soil-VMW	Soil	0.00147	0.00016	0.01945	0.00027	0.00038	0.00008	0.00218	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 A 0.3	61	NORMAL	7/03/2023	13:52:02	soil-VMW	Soil	0.00143	0.00018	0.02347	0.00034	<LOD	0.00029	0.00269	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 B 0.0	62	NORMAL	7/03/2023	13:54:11	soil-VMW	Soil	0.00095	0.00015	0.0225	0.0003	<LOD	0.00035	0.00631	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 C 0.0	63	NORMAL	7/03/2023	13:55:13	soil-VMW	Soil	0.00197	0.00015	0.01964	0.00027	0.00057	0.00012	0.00653	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 D 0.0	64	NORMAL	7/03/2023	13:56:30	soil-VMW	Soil	0.00209	0.00015	0.0142	0.00022	0.00051	0.00012	0.0069	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B8/2 O 0.0	65	NORMAL	7/03/2023	13:57:57	soil-VMW	Soil	0.00159	0.00016	0.01018	0.00021	<LOD	0.00035	0.0059	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 A 0.0	66	NORMAL	7/03/2023	14:11:10	soil-VMW	Soil	0.00082	0.00015	0.00793	0.00019	<LOD	0.00037	0.00653	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 A 0.1	67	NORMAL	7/03/2023	14:13:27	soil-VMW	Soil	0.00218	0.00015	0.00909	0.00018	0.00067	0.0001	0.00522	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 A 0.2	68	NORMAL	7/03/2023	14:14:29	soil-VMW	Soil	0.00209	0.00017	0.00874	0.0002	0.00075	0.00012	0.00556	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 A 0.3	69	NORMAL	7/03/2023	14:15:33	soil-VMW	Soil	0.00204	0.00015	0.00981	0.00018	0.00079	0.00011	0.00694	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 B 0.0	70	NORMAL	7/03/2023	14:17:14	soil-VMW	Soil	0.00224	0.00015	0.00627	0.00015	0.00043	0.00008	0.00274	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 C 0.0	71	NORMAL	7/03/2023	14:18:43	soil-VMW	Soil	0.00164	0.00016	0.00603	0.00017	0.00053	0.00009	0.00208	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 D 0.0	72	NORMAL	7/03/2023	14:20:51	soil-VMW	Soil	0.00155	0.00023	0.00516	0.00022	0.00034	0.00011	0.00185	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S2/1 O 0.0	73	NORMAL	7/03/2023	14:22:03	soil-VMW	Soil	0.00189	0.00015	0.0059	0.00015	0.00056	0.00008	0.00227	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.0	74	NORMAL	7/03/2023	14:47:44	soil-VMW	Soil	0.00491	0.0002	0.04407	0.00043	<LOD	0.00159	0.16584	0.00087	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.0	75	NORMAL	7/03/2023	14:48:55	soil-VMW	Soil	0.00514	0.00021	0.04429	0.00044	<LOD	0.00162	0.16332	0.00088	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.0	76	NORMAL	7/03/2023	14:50:44	soil-VMW	Soil	0.00421	0.00019	0.03791	0.0004	<LOD	0.00147	0.14104	0.00078	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.0	77	NORMAL	7/03/2023	14:51:49	soil-VMW	Soil	0.00589	0.00021	0.04669	0.00043	<LOD	0.00157	0.1709	0.00086	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.0	78	NORMAL	7/03/2023	14:53:04	soil-VMW	Soil	0.00499	0.0002	0.04632	0.00044	<LOD	0.00162	0.17113	0.00089	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.0	79	NORMAL	7/03/2023	14:54:04	soil-VMW	Soil	0.00504	0.00021	0.04384	0.00043	<LOD	0.00163	0.17045	0.0009	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 B 0.0	80	NORMAL	7/03/2023	14:56:09	soil-VMW	Soil	0.00121	0.00012	0.02727	0.00028	0.00074	0.00017	0.02093	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.0	81	NORMAL	7/03/2023	14:57:30	soil-VMW	Soil	0.00236	0.00016	0.01887	0.00026	<LOD	0.00073	0.03697	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.0	82	NORMAL	7/03/2023	14:58:29	soil-VMW	Soil	0.00251	0.00016	0.01738	0.00025	<LOD	0.00063	0.02861	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 D 0.0	83	NORMAL	7/03/2023	14:59:27	soil-VMW	Soil	0.00194	0.00016	0.01222	0.00022	<LOD	0.00036	0.00664	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW

B2/2 O 0.0	84	NORMAL	7/03/2023	15:00:33	soil-VMW	Soil	0.00226	0.00015	0.0113	0.0002	0.00033	0.00011	0.00568	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.0	85	NORMAL	7/03/2023	15:02:34	soil-VMW	Soil	0.00253	0.00016	0.01582	0.00023	<LOD	0.00061	0.02713	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	1	NORMAL	9/03/2023	8:48:31	soil-VMW	Soil	<LOD	0.00038	<LOD	0.00023	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	2	NORMAL	9/03/2023	8:49:50	soil-VMW	Soil	0.01353	0.00032	0.03838	0.00044	0.00734	0.00055	0.13586	0.00084	1090A	In Situ	AC	Tokanui	800224	VMW
Std	3	NORMAL	9/03/2023	8:50:57	soil-VMW	Soil	0.31184	0.00199	0.39347	0.00227	0.14354	0.00141	0.48568	0.00253	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.1	4	NORMAL	9/03/2023	8:53:56	soil-VMW	Soil	0.00553	0.00024	0.03384	0.00043	<LOD	0.00148	0.10573	0.00073	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.4	5	NORMAL	9/03/2023	9:00:18	soil-VMW	Soil	0.00265	0.00016	0.01169	0.0002	0.00039	0.00008	0.00237	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.3	6	NORMAL	9/03/2023	9:03:23	soil-VMW	Soil	0.00386	0.00018	0.01577	0.00024	<LOD	0.00136	0.13273	0.00071	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.2	7	NORMAL	9/03/2023	9:04:26	soil-VMW	Soil	0.00398	0.00018	0.02885	0.00033	<LOD	0.00113	0.08871	0.00054	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.3	8	NORMAL	9/03/2023	9:05:44	soil-VMW	Soil	0.00295	0.00017	0.03056	0.00033	<LOD	0.00044	0.01188	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.3	9	NORMAL	9/03/2023	9:07:12	soil-VMW	Soil	0.00282	0.00016	0.02162	0.00027	<LOD	0.00073	0.04041	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 A 0.3	10	NORMAL	9/03/2023	9:09:38	soil-VMW	Soil	0.0024	0.00016	0.02762	0.00031	<LOD	0.00061	0.02641	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.1	11	NORMAL	9/03/2023	9:11:30	soil-VMW	Soil	0.00364	0.00018	0.02268	0.0003	<LOD	0.0009	0.05224	0.0004	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.2	12	NORMAL	9/03/2023	9:13:37	soil-VMW	Soil	0.00358	0.0002	0.02261	0.00032	<LOD	0.00124	0.08617	0.00059	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.3	13	NORMAL	9/03/2023	9:14:41	soil-VMW	Soil	0.00361	0.00018	0.02742	0.00032	0.0013	0.00035	0.07525	0.00049	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.4	14	NORMAL	9/03/2023	9:18:44	soil-VMW	Soil	0.00235	0.00015	0.01127	0.00019	<LOD	0.00033	0.00706	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B2/2 C 0.4	15	NORMAL	9/03/2023	9:20:04	soil-VMW	Soil	0.00238	0.00015	0.01024	0.00019	0.0005	0.00009	0.00388	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 A 0.0	16	NORMAL	9/03/2023	9:31:08	soil-VMW	Soil	0.00312	0.00018	0.01551	0.00025	<LOD	0.00032	0.00466	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 B 0.0	17	NORMAL	9/03/2023	9:35:03	soil-VMW	Soil	0.00231	0.00015	0.01081	0.00019	<LOD	0.00027	0.00387	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 C 0.0	18	NORMAL	9/03/2023	9:36:08	soil-VMW	Soil	0.00355	0.00017	0.0181	0.00025	0.00032	0.00009	0.00392	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 D 0.0	19	NORMAL	9/03/2023	9:37:06	soil-VMW	Soil	0.00211	0.00019	0.012	0.00025	0.00044	0.00011	0.00347	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 O 0.0	20	NORMAL	9/03/2023	9:38:24	soil-VMW	Soil	0.00236	0.00017	0.01361	0.00024	0.00029	0.00009	0.0028	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 A 0.1	21	NORMAL	9/03/2023	9:40:38	soil-VMW	Soil	0.00385	0.0002	0.01266	0.00025	0.00036	0.00011	0.00442	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 A 0.2	22	NORMAL	9/03/2023	9:42:19	soil-VMW	Soil	0.00523	0.00019	0.01613	0.00024	0.00036	0.00011	0.00601	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 A 0.3	23	NORMAL	9/03/2023	9:43:44	soil-VMW	Soil	0.00415	0.00021	0.0125	0.00024	<LOD	0.00034	0.00475	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B4/1 A 0.4	24	NORMAL	9/03/2023	9:44:50	soil-VMW	Soil	0.00405	0.00019	0.01238	0.00023	<LOD	0.00033	0.00468	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 A 0.0	25	NORMAL	9/03/2023	9:53:12	soil-VMW	Soil	<LOD	0.1342	0.13768	0.03594	<LOD	0.03293	<LOD	0.03678	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 A 0.0	26	NORMAL	9/03/2023	9:54:24	soil-VMW	Soil	0.0025	0.00015	0.01261	0.00021	0.0006	0.00009	0.00318	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 B 0.0	27	NORMAL	9/03/2023	9:55:52	soil-VMW	Soil	0.00127	0.00013	0.00642	0.00015	0.00058	0.00007	0.00166	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 C 0.0	28	NORMAL	9/03/2023	9:57:03	soil-VMW	Soil	0.00097	0.00013	0.00542	0.00014	0.00063	0.00007	0.00162	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 D 0.0	29	NORMAL	9/03/2023	9:58:19	soil-VMW	Soil	0.00158	0.00014	0.00587	0.00015	0.00093	0.00008	0.00188	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 O 0.0	30	NORMAL	9/03/2023	10:00:24	soil-VMW	Soil	0.00148	0.00015	0.00649	0.00016	0.00064	0.00008	0.00214	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 A 0.1	31	NORMAL	9/03/2023	10:01:50	soil-VMW	Soil	0.00134	0.00014	0.00667	0.00016	0.00071	0.00008	0.00171	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 A 0.2	32	NORMAL	9/03/2023	10:03:15	soil-VMW	Soil	0.00242	0.00016	0.00819	0.00018	0.00076	0.00009	0.0026	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 A 0.3	33	NORMAL	9/03/2023	10:06:29	soil-VMW	Soil	0.00225	0.00015	0.0082	0.00017	0.00089	0.00008	0.0019	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 A 0.0	34	NORMAL	9/03/2023	10:10:55	soil-VMW	Soil	0.00262	0.00016	0.00938	0.00018	0.00072	0.00009	0.00294	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B1/1 A 0.0	35	NORMAL	9/03/2023	10:12:02	soil-VMW	Soil	0.00162	0.00015	0.00903	0.00018	0.00037	0.00008	0.00248	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 A 0.0	36	NORMAL	9/03/2023	10:34:42	soil-VMW	Soil	0.00863	0.00021	0.01043	0.00019	0.00191	0.0001	0.00448	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 A 0.0	37	NORMAL	9/03/2023	10:36:27	soil-VMW	Soil	0.00707	0.0002	0.00925	0.00018	0.00127	0.0001	0.00516	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 A 0.0	38	NORMAL	9/03/2023	10:37:34	soil-VMW	Soil	0.00684	0.00022	0.00901	0.0002	0.00148	0.00011	0.0043	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 B 0.0	39	NORMAL	9/03/2023	10:38:51	soil-VMW	Soil	0.00158	0.00014	0.00656	0.00015	0.00077	0.00009	0.00377	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 C 0.0	40	NORMAL	9/03/2023	10:40:12	soil-VMW	Soil	0.0015	0.00014	0.00765	0.00017	0.00043	0.0001	0.00406	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 D 0.0	41	NORMAL	9/03/2023	10:41:15	soil-VMW	Soil	0.00184	0.00016	0.01019	0.0002	<LOD	0.00036	0.00643	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 O 0.0	42	NORMAL	9/03/2023	10:42:53	soil-VMW	Soil	0.00184	0.00014	0.00947	0.00018	0.00049	0.00011	0.00656	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 A 0.1	43	NORMAL	9/03/2023	10:44:45	soil-VMW	Soil	0.00579	0.0002	0.00837	0.00018	0.00188	0.00011	0.00407	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 A 0.2	44	NORMAL	9/03/2023	10:47:31	soil-VMW	Soil	0.00428	0.00018	0.00782	0.00017	0.0009	0.0001	0.00421	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B10/1 A 0.3	45	NORMAL	9/03/2023	10:48:49	soil-VMW	Soil	0.00521	0.00018	0.01242	0.0002	0.00061	0.00011	0.00589	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.0	46	NORMAL	9/03/2023	10:56:03	soil-VMW	Soil	0.00207	0.00016	0.01789	0.00026	<LOD	0.0008	0.04396	0.00036	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.0	47	NORMAL	9/03/2023	10:57:28	soil-VMW	Soil	0.00205	0.00015	0.01814	0.00025	<LOD	0.0007	0.03673	0.00031	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.0	48	NORMAL	9/03/2023	10:58:38	soil-VMW	Soil	0.00191	0.00017	0.01989	0.0003	<LOD	0.00083	0.03867	0.00036	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 B 0.0	49	NORMAL	9/03/2023	11:01:05	soil-VMW	Soil	0.00152	0.00015	0.01681	0.00025	<LOD	0.00054	0.01904	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 C 0.0	50	NORMAL	9/03/2023	11:02:43	soil-VMW	Soil	0.00134	0.00014	0.00908	0.00018	<LOD	0.00035	0.00771	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 D 0.0	51	NORMAL	9/03/2023	11:04:56	soil-VMW	Soil	0.00139	0.00021	0.01048	0.00027	<LOD	0.00049	0.00769	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 O 0.0	52	NORMAL	9/03/2023	11:07:25	soil-VMW	Soil	0.00144	0.00016	0.00847	0.00019	<LOD	0.00027	0.00277	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 O 0.0	53	NORMAL	9/03/2023	11:09:29	soil-VMW	Soil	0.00128	0.00015	0.00822	0.00019	<LOD	0.00027	0.00279	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 O 0.0	54	NORMAL	9/03/2023	11:11:57	soil-VMW	Soil	0.00109	0.00014	0.00842	0.00018	0.00029	0.00008	0.00226	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.1	55	NORMAL	9/03/2023	11:13:09	soil-VMW	Soil	0.00196	0.00017	0.01395	0.00024	<LOD	0.00052	0.01566	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.2	56	NORMAL	9/03/2023	11:15:44	soil-VMW	Soil	0.00386	0.00018	0.02235	0.00028	<LOD	0.00063	0.02803	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.3	57	NORMAL	9/03/2023	11:17:27	soil-VMW	Soil	0.00171	0.00015	0.01047	0.0002	<LOD	0.00035	0.00684	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.4	58	NORMAL	9/03/2023	11:19:44	soil-VMW	Soil	0.00189	0.00016	0.01107	0.00021	<LOD	0.00034	0.00643	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.2	59	NORMAL	9/03/2023	11:23:02	soil-VMW	Soil	0.0032	0.00017	0.02616	0.00031	<LOD	0.00069	0.03241	0.0003	1090A	In Situ	AC	Tokanui	800224	VMW
B11/1 A 0.2	60	NORMAL	9/03/2023	11:27:11	soil-VMW	Soil	0.0025	0.00016	0.01796	0.00025	<LOD	0.0006	0.02581	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.0	61	NORMAL	9/03/2023	11:49:02	soil-VMW	Soil	0.0015	0.00015	0.04356	0.0004	<LOD	0.00077	0.04373	0.00034	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.0	62	NORMAL	9/03/2023	11:51:06	soil-VMW	Soil	0.00161	0.00014	0.04341	0.00038	<LOD	0.00076	0.04596	0.00034	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.0	63	NORMAL	9/03/2023	11:52:13	soil-VMW	Soil	0.00172	0.00014	0.03348	0.00033	<LOD	0.00059	0.02778	0.00025	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 B 0.0	64	NORMAL	9/03/2023	11:53:23	soil-VMW	Soil	0.00153	0.00014	0.01852	0.00024	<LOD	0.00043	0.01379	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 C 0.0	65	NORMAL	9/03/2023	11:54:48	soil-VMW	Soil	0.00146	0.00015	0.01522	0.00024	<LOD	0.00042	0.01026	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW

B11/2 D 0.0	66	NORMAL	9/03/2023	11:56:19	soil-VMW	Soil	0.00091	0.00016	0.02224	0.00031	<LOD	0.00037	0.00601	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 O 0.0	67	NORMAL	9/03/2023	11:58:31	soil-VMW	Soil	0.00329	0.0002	0.01405	0.00026	0.00054	0.00015	0.00863	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.0	68	NORMAL	9/03/2023	11:59:58	soil-VMW	Soil	0.00176	0.00014	0.04898	0.0004	<LOD	0.00074	0.04426	0.00033	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.0	69	NORMAL	9/03/2023	12:01:10	soil-VMW	Soil	0.00178	0.00014	0.04691	0.00039	<LOD	0.00073	0.04503	0.00033	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.0	70	NORMAL	9/03/2023	12:02:16	soil-VMW	Soil	0.00154	0.00015	0.04921	0.00043	<LOD	0.00081	0.04627	0.00036	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.1	71	NORMAL	9/03/2023	12:03:30	soil-VMW	Soil	0.00246	0.00019	0.01794	0.00029	<LOD	0.00045	0.00922	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.2	72	NORMAL	9/03/2023	12:05:16	soil-VMW	Soil	0.00231	0.00016	0.01455	0.00023	<LOD	0.00055	0.01891	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.4	73	NORMAL	9/03/2023	12:08:39	soil-VMW	Soil	0.00094	0.00013	0.00929	0.00018	0.00051	0.00008	0.00308	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B11/2 A 0.3	74	NORMAL	9/03/2023	12:09:35	soil-VMW	Soil	0.00104	0.00014	0.01255	0.00021	<LOD	0.00042	0.01099	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 A 0.0	75	NORMAL	9/03/2023	12:23:52	soil-VMW	Soil	0.00235	0.00017	0.03699	0.00039	<LOD	0.00093	0.05532	0.00042	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 B 0.0	76	NORMAL	9/03/2023	12:25:25	soil-VMW	Soil	0.00089	0.00014	0.00933	0.00019	<LOD	0.00034	0.00669	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 C 0.0	77	NORMAL	9/03/2023	12:26:32	soil-VMW	Soil	0.00173	0.00016	0.00776	0.00019	<LOD	0.00036	0.00621	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 D 0.0	78	NORMAL	9/03/2023	12:27:36	soil-VMW	Soil	0.00209	0.00017	0.00806	0.00019	0.00066	0.00012	0.00643	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 A 0.0	79	NORMAL	9/03/2023	12:29:39	soil-VMW	Soil	0.00172	0.00017	0.03193	0.00037	<LOD	0.00093	0.05315	0.00042	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 A 0.0	80	NORMAL	9/03/2023	12:30:55	soil-VMW	Soil	0.00182	0.00016	0.03807	0.00038	<LOD	0.00089	0.05425	0.0004	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 A 0.1	81	NORMAL	9/03/2023	12:35:02	soil-VMW	Soil	0.0026	0.00017	0.01505	0.00024	<LOD	0.00097	0.06521	0.00045	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 A 0.2	82	NORMAL	9/03/2023	12:36:47	soil-VMW	Soil	0.001	0.00015	0.00788	0.00018	0.00075	0.00013	0.00763	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B15/1 A 0.3	83	NORMAL	9/03/2023	12:38:25	soil-VMW	Soil	0.00162	0.00015	0.0079	0.00018	0.00044	0.00008	0.00205	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	84	NORMAL	9/03/2023	12:43:07	soil-VMW	Soil	<LOD	0.00037	<LOD	0.00022	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	85	NORMAL	9/03/2023	12:44:09	soil-VMW	Soil	0.01465	0.00033	0.03836	0.00045	0.0064	0.00056	0.13748	0.00086	1090A	In Situ	AC	Tokanui	800224	VMW
Std	86	NORMAL	9/03/2023	12:45:07	soil-VMW	Soil	0.33441	0.00213	0.4213	0.00244	0.15549	0.00151	0.53361	0.0028	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 A 0.0	87	NORMAL	9/03/2023	12:57:51	soil-VMW	Soil	0.00239	0.00019	0.02163	0.00033	0.00066	0.00021	0.01842	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 B 0.0	88	NORMAL	9/03/2023	12:59:25	soil-VMW	Soil	0.00192	0.00016	0.01267	0.00022	<LOD	0.00043	0.01047	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 C 0.0	89	NORMAL	9/03/2023	13:01:03	soil-VMW	Soil	0.00281	0.00019	0.01051	0.00023	<LOD	0.00047	0.01069	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 D 0.0	90	NORMAL	9/03/2023	13:02:19	soil-VMW	Soil	0.00217	0.00018	0.00832	0.0002	<LOD	0.00037	0.00597	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 A 0.1	91	NORMAL	9/03/2023	13:04:12	soil-VMW	Soil	0.0036	0.0002	0.019	0.0003	<LOD	0.00078	0.03311	0.00034	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 A 0.1	92	NORMAL	9/03/2023	13:05:16	soil-VMW	Soil	0.00359	0.0002	0.0174	0.00029	<LOD	0.00078	0.03213	0.00034	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 A 0.1	93	NORMAL	9/03/2023	13:06:14	soil-VMW	Soil	0.00284	0.0002	0.0144	0.00027	<LOD	0.00081	0.03324	0.00036	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 A 0.2	94	NORMAL	9/03/2023	13:09:04	soil-VMW	Soil	0.00294	0.00016	0.00592	0.00016	0.00063	0.00009	0.00343	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B15/2 A 0.3	95	NORMAL	9/03/2023	13:10:56	soil-VMW	Soil	0.00371	0.00017	0.00603	0.00015	0.00051	0.00007	0.00165	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 A 0.0	96	NORMAL	9/03/2023	13:22:54	soil-VMW	Soil	0.04545	0.00059	0.4017	0.00222	0.00295	0.00026	0.02431	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 B 0.0	97	NORMAL	9/03/2023	13:24:46	soil-VMW	Soil	0.01082	0.00026	0.08297	0.00061	0.00052	0.00017	0.01483	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 C 0.0	98	NORMAL	9/03/2023	13:26:11	soil-VMW	Soil	0.00495	0.00023	0.07668	0.00065	0.00078	0.00015	0.00855	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 D 0.0	99	NORMAL	9/03/2023	13:27:26	soil-VMW	Soil	0.00293	0.00019	0.04622	0.00044	0.00096	0.00012	0.00591	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 O 0.0	100	NORMAL	9/03/2023	13:29:04	soil-VMW	Soil	0.00149	0.00018	0.01355	0.00025	0.00054	0.00014	0.00736	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 A 0.1	101	NORMAL	9/03/2023	13:33:49	soil-VMW	Soil	0.00255	0.00018	0.01474	0.00024	0.00055	0.00017	0.01546	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 A 0.2	102	NORMAL	9/03/2023	13:36:02	soil-VMW	Soil	0.00251	0.00018	0.01225	0.00023	<LOD	0.00046	0.01087	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 A 0.2	103	NORMAL	9/03/2023	13:38:28	soil-VMW	Soil	0.00207	0.00018	0.01145	0.00023	0.00047	0.00013	0.00691	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 A 0.2	104	NORMAL	9/03/2023	13:40:08	soil-VMW	Soil	0.00218	0.00017	0.01325	0.00023	0.00059	0.00013	0.0082	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B17/1 A 0.3	105	NORMAL	9/03/2023	13:41:43	soil-VMW	Soil	0.00255	0.00018	0.01137	0.00022	0.00043	0.00014	0.00849	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 A 0.0	106	NORMAL	9/03/2023	13:49:55	soil-VMW	Soil	0.00266	0.0002	0.03372	0.0004	<LOD	0.00052	0.01226	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 A 0.0	107	NORMAL	9/03/2023	13:50:57	soil-VMW	Soil	0.00341	0.00022	0.03434	0.00042	0.00126	0.0002	0.01497	0.00024	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 A 0.0	108	NORMAL	9/03/2023	13:52:03	soil-VMW	Soil	0.00239	0.00017	0.03732	0.00038	0.00052	0.00016	0.01392	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 B 0.0	109	NORMAL	9/03/2023	13:53:37	soil-VMW	Soil	0.00316	0.00022	0.01811	0.00032	<LOD	0.00055	0.01205	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 C 0.0	110	NORMAL	9/03/2023	13:54:55	soil-VMW	Soil	0.00335	0.00021	0.02659	0.00037	0.00063	0.0002	0.01575	0.00024	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 D 0.0	111	NORMAL	9/03/2023	13:56:50	soil-VMW	Soil	0.00352	0.00023	0.01468	0.0003	0.0006	0.00017	0.00892	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 O 0.0	112	NORMAL	9/03/2023	13:58:00	soil-VMW	Soil	0.00359	0.00021	0.0152	0.00028	0.00078	0.00015	0.00772	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 A 0.1	113	NORMAL	9/03/2023	13:59:45	soil-VMW	Soil	0.00305	0.00024	0.01639	0.00031	0.00139	0.00013	0.00218	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 A 0.2	114	NORMAL	9/03/2023	14:01:12	soil-VMW	Soil	0.00158	0.00017	0.01423	0.00026	0.00055	0.00009	0.00184	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B17/2 A 0.3	115	NORMAL	9/03/2023	14:04:47	soil-VMW	Soil	0.00173	0.00014	0.0077	0.00016	0.00039	0.00007	0.00137	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 A 0.0	116	NORMAL	9/03/2023	14:10:55	soil-VMW	Soil	0.00251	0.00018	0.0208	0.00029	<LOD	0.00058	0.0193	0.00024	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 B 0.0	117	NORMAL	9/03/2023	14:12:20	soil-VMW	Soil	0.00316	0.00023	0.02529	0.00039	<LOD	0.00065	0.01642	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 C 0.0	118	NORMAL	9/03/2023	14:14:04	soil-VMW	Soil	0.0027	0.00022	0.01439	0.0003	0.00078	0.0002	0.01233	0.00024	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 D 0.0	119	NORMAL	9/03/2023	14:15:24	soil-VMW	Soil	0.00183	0.00019	0.01113	0.00024	<LOD	0.00049	0.01051	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 O 0.0	120	NORMAL	9/03/2023	14:16:47	soil-VMW	Soil	0.00355	0.00022	0.01556	0.00029	0.00064	0.00016	0.00824	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 A 0.1	121	NORMAL	9/03/2023	14:20:24	soil-VMW	Soil	0.00362	0.00023	0.02663	0.00039	0.00081	0.00025	0.02404	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 A 0.1	122	NORMAL	9/03/2023	14:21:45	soil-VMW	Soil	0.00343	0.00021	0.0261	0.00037	0.00148	0.00025	0.0252	0.00031	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 A 0.1	123	NORMAL	9/03/2023	14:22:37	soil-VMW	Soil	0.00307	0.00021	0.0268	0.00038	0.00092	0.00025	0.02582	0.00031	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 A 0.2	124	NORMAL	9/03/2023	14:24:14	soil-VMW	Soil	0.00169	0.00015	0.00744	0.00017	<LOD	0.00026	0.00328	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B19/1 A 0.3	125	NORMAL	9/03/2023	14:25:46	soil-VMW	Soil	0.00192	0.00015	0.00817	0.00018	0.00048	0.00009	0.0026	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B20 yellow paint	126	NORMAL	9/03/2023	14:41:03	soil-VMW	Soil	0.00159	0.00021	0.05107	0.00056	0.0006	0.0001	0.0009	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 A 0.0	127	NORMAL	9/03/2023	14:51:32	soil-VMW	Soil	0.05538	0.00067	0.434	0.00244	0.00292	0.00053	0.10683	0.00078	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 A 0.0	128	NORMAL	9/03/2023	14:52:54	soil-VMW	Soil	0.06572	0.00072	0.37083	0.0021	0.00389	0.0005	0.09832	0.00073	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 A 0.0	129	NORMAL	9/03/2023	14:54:46	soil-VMW	Soil	0.03412	0.0005	0.38114	0.00206	<LOD	0.00138	0.09174	0.00067	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 B 0.0	130	NORMAL	9/03/2023	14:55:53	soil-VMW	Soil	0.03121	0.0004	0.10206	0.0007	0.00123	0.00019	0.01759	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 C 0.0	131	NORMAL	9/03/2023	14:57:12	soil-VMW	Soil	0.00858	0.00024	0.04003	0.00041	<LOD	0.00035	0.00621	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 D 0.0	132	NORMAL	9/03/2023	14:58:18	soil-VMW	Soil	0.00239	0.00022	0.01268	0.00028	<LOD	0.00037	0.00375	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW

B21/1 O 0.0	133	NORMAL	9/03/2023	14:59:36	soil-VMW	Soil	0.00236	0.00018	0.01339	0.00025	0.00059	0.00012	0.00436	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 A 0.1	134	NORMAL	9/03/2023	15:02:42	soil-VMW	Soil	0.01419	0.00029	0.11277	0.00076	0.00096	0.0002	0.01947	0.00024	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 A 0.2	135	NORMAL	9/03/2023	15:06:10	soil-VMW	Soil	0.00126	0.00015	0.00419	0.00014	0.00029	0.00007	0.00148	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 A 0.3	136	NORMAL	9/03/2023	15:08:18	soil-VMW	Soil	0.00145	0.00016	0.00444	0.00015	0.00064	0.00009	0.00238	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B21/1 B 0.1	137	NORMAL	9/03/2023	15:10:47	soil-VMW	Soil	0.00765	0.00026	0.04519	0.0005	0.00066	0.00014	0.00643	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	1	NORMAL	13/03/2023	8:36:55	soil-VMW	Soil	<LOD	0.00039	<LOD	0.00022	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	2	NORMAL	13/03/2023	8:38:23	soil-VMW	Soil	0.01375	0.00033	0.03814	0.00045	0.00675	0.00056	0.13595	0.00086	1090A	In Situ	AC	Tokanui	800224	VMW
Std	3	NORMAL	13/03/2023	8:39:38	soil-VMW	Soil	0.32759	0.00207	0.40873	0.00235	0.15085	0.00147	0.52056	0.0027	1090A	In Situ	AC	Tokanui	800224	VMW
B22/1 A 0.0	4	NORMAL	13/03/2023	8:43:28	soil-VMW	Soil	0.00105	0.00016	0.07869	0.00062	0.00035	0.00009	0.00203	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B22/1 B 0.0	5	NORMAL	13/03/2023	8:44:26	soil-VMW	Soil	<LOD	0.0003	0.03329	0.00029	<LOD	0.00016	0.00107	0.00007	1090A	In Situ	AC	Tokanui	800224	VMW
B22/1 C 0.0	6	NORMAL	13/03/2023	8:45:37	soil-VMW	Soil	0.00118	0.00014	0.01064	0.0002	0.00025	0.00007	0.00181	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B22/1 D 0.0	7	NORMAL	13/03/2023	8:47:00	soil-VMW	Soil	0.00126	0.00014	0.01206	0.0002	<LOD	0.00024	0.00261	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B22/1 A 0.1	8	NORMAL	13/03/2023	8:49:57	soil-VMW	Soil	0.00217	0.00016	0.01748	0.00026	0.00034	0.00008	0.00243	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B22/1 A 0.2	9	NORMAL	13/03/2023	8:52:15	soil-VMW	Soil	0.00161	0.00016	0.01071	0.00021	0.00041	0.00008	0.00163	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 A 0.0	10	NORMAL	13/03/2023	8:59:56	soil-VMW	Soil	0.00977	0.00022	0.36495	0.0015	0.00084	0.00025	0.0462	0.00033	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 A 0.0	11	NORMAL	13/03/2023	9:01:22	soil-VMW	Soil	0.00883	0.00021	0.39939	0.00157	0.00133	0.00024	0.04253	0.00031	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 A 0.0	12	NORMAL	13/03/2023	9:02:42	soil-VMW	Soil	0.00777	0.0002	0.38207	0.00151	0.00162	0.00031	0.07736	0.00044	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 A 0.0	13	NORMAL	13/03/2023	9:03:37	soil-VMW	Soil	0.0069	0.00019	0.38538	0.0015	0.001	0.00023	0.04169	0.0003	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 B 0.0	14	NORMAL	13/03/2023	9:05:08	soil-VMW	Soil	0.01385	0.00025	0.02249	0.00027	0.00053	0.00011	0.00675	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 C 0.0	15	NORMAL	13/03/2023	9:06:43	soil-VMW	Soil	0.00252	0.00013	0.01083	0.00017	0.00025	0.00007	0.00288	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 D 0.0	16	NORMAL	13/03/2023	9:08:19	soil-VMW	Soil	0.00116	0.00012	0.00631	0.00014	0.00034	0.00006	0.00148	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 O 0.0	17	NORMAL	13/03/2023	9:09:25	soil-VMW	Soil	<LOD	0.00034	0.00417	0.00012	0.00027	0.00006	0.0011	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 A 0.1	18	NORMAL	13/03/2023	9:10:41	soil-VMW	Soil	0.00532	0.00027	0.0585	0.00064	0.00095	0.00021	0.01356	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B21/2 A 0.2	19	NORMAL	13/03/2023	9:13:53	soil-VMW	Soil	0.00427	0.00019	0.01747	0.00027	0.00053	0.00011	0.00498	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B23/1 B 0.0	20	NORMAL	13/03/2023	9:26:14	soil-VMW	Soil	0.00153	0.00015	0.11585	0.00073	<LOD	0.00063	0.02641	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B23/1 C 0.0	21	NORMAL	13/03/2023	9:28:22	soil-VMW	Soil	0.00111	0.00014	0.01728	0.00025	<LOD	0.00029	0.00405	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B23/1 D 0.0	22	NORMAL	13/03/2023	9:30:16	soil-VMW	Soil	0.00063	0.00014	0.00938	0.00019	<LOD	0.00024	0.0022	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B23/1 O 0.0	23	NORMAL	13/03/2023	9:31:23	soil-VMW	Soil	0.001	0.00014	0.01012	0.00019	0.00027	0.00008	0.00216	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B23/1 B 0.1	24	NORMAL	13/03/2023	9:32:40	soil-VMW	Soil	0.00199	0.00017	0.04266	0.00042	<LOD	0.00047	0.01306	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B23/1 B 0.2	25	NORMAL	13/03/2023	9:34:29	soil-VMW	Soil	0.00184	0.00017	0.01075	0.00022	<LOD	0.00044	0.00987	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B25 paint	26	NORMAL	13/03/2023	9:42:09	soil-VMW	Soil	0.00262	0.00027	0.0355	0.00054	<LOD	0.00081	0.02353	0.00037	1090A	In Situ	AC	Tokanui	800224	VMW
B26/1 A 0.0	27	NORMAL	13/03/2023	9:53:47	soil-VMW	Soil	0.00203	0.00013	0.01514	0.0002	0.00284	0.00021	0.03257	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B26/1 B 0.0	28	NORMAL	13/03/2023	9:57:41	soil-VMW	Soil	0.00276	0.00013	0.00682	0.00014	0.0011	0.00008	0.00395	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B26/1 C 0.0	29	NORMAL	13/03/2023	9:59:30	soil-VMW	Soil	0.00434	0.00019	0.00987	0.0002	0.00111	0.00012	0.0054	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B26/1 D 0.0	30	NORMAL	13/03/2023	10:02:13	soil-VMW	Soil	0.00191	0.00014	0.00493	0.00014	0.0004	0.00007	0.00183	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B26/1 O 0.0	31	NORMAL	13/03/2023	10:03:24	soil-VMW	Soil	0.00166	0.00014	0.00517	0.00014	0.00042	0.00007	0.00182	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B26/2 A 0.0	32	NORMAL	13/03/2023	10:12:04	soil-VMW	Soil	0.00464	0.00023	0.01647	0.00029	0.00209	0.00025	0.02388	0.0003	1090A	In Situ	AC	Tokanui	800224	VMW
B26/2 B 0.0	33	NORMAL	13/03/2023	10:13:11	soil-VMW	Soil	0.00315	0.00017	0.00819	0.00018	<LOD	0.0003	0.00421	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B26/2 C 0.0	34	NORMAL	13/03/2023	10:14:12	soil-VMW	Soil	0.00289	0.00018	0.00953	0.00021	0.00032	0.0001	0.00386	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B26/2 D 0.0	35	NORMAL	13/03/2023	10:15:14	soil-VMW	Soil	0.0033	0.00017	0.00964	0.00019	0.00049	0.00012	0.00682	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B26/2 O 0.0	36	NORMAL	13/03/2023	10:16:34	soil-VMW	Soil	0.00247	0.00017	0.00726	0.00018	<LOD	0.00028	0.003	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S3	37	NORMAL	13/03/2023	10:29:20	soil-VMW	Soil	0.0014	0.00021	0.12202	0.00095	0.00071	0.00011	0.00183	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 A 0.0	38	NORMAL	13/03/2023	10:33:37	soil-VMW	Soil	0.00171	0.00017	0.01606	0.00027	<LOD	0.00029	0.00311	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 A 0.0	39	NORMAL	13/03/2023	10:34:38	soil-VMW	Soil	0.00251	0.00017	0.02119	0.00029	<LOD	0.00029	0.00389	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 A 0.0	40	NORMAL	13/03/2023	10:35:47	soil-VMW	Soil	0.00276	0.0002	0.0214	0.00033	<LOD	0.00034	0.00419	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 B 0.0	41	NORMAL	13/03/2023	10:38:32	soil-VMW	Soil	0.02116	0.00031	0.02548	0.0003	0.00046	0.00009	0.00372	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 C 0.0	42	NORMAL	13/03/2023	10:39:58	soil-VMW	Soil	0.00201	0.00016	0.01479	0.00024	0.0003	0.00008	0.00239	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 D 0.0	43	NORMAL	13/03/2023	10:41:08	soil-VMW	Soil	0.00184	0.00015	0.01047	0.00019	0.00025	0.00008	0.00236	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 O 0.0	44	NORMAL	13/03/2023	10:42:47	soil-VMW	Soil	0.00167	0.00018	0.00895	0.00022	0.00031	0.00009	0.00217	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 A 0.1	45	NORMAL	13/03/2023	10:45:52	soil-VMW	Soil	0.00564	0.00022	0.02881	0.00036	0.00082	0.00013	0.00648	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
S3/1 A 0.2	46	NORMAL	13/03/2023	10:47:26	soil-VMW	Soil	0.00457	0.00019	0.02426	0.0003	0.00062	0.0001	0.00449	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 A 0.0	47	NORMAL	13/03/2023	11:00:42	soil-VMW	Soil	0.00266	0.00019	0.31665	0.00154	<LOD	0.00101	0.06518	0.00047	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 A 0.0	48	NORMAL	13/03/2023	11:01:35	soil-VMW	Soil	0.00316	0.00019	0.38031	0.00174	0.00139	0.00031	0.05488	0.00041	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 A 0.0	49	NORMAL	13/03/2023	11:02:32	soil-VMW	Soil	0.00266	0.00019	0.3475	0.00166	<LOD	0.00182	0.22212	0.00108	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 A 0.0	50	NORMAL	13/03/2023	11:03:48	soil-VMW	Soil	0.00344	0.00019	0.38271	0.00173	0.00261	0.00046	0.12822	0.0007	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 A 0.0	51	NORMAL	13/03/2023	11:05:28	soil-VMW	Soil	0.00347	0.00019	0.32587	0.00155	<LOD	0.001	0.06556	0.00046	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 B 0.0	52	NORMAL	13/03/2023	11:08:55	soil-VMW	Soil	0.00133	0.00014	0.01617	0.00024	<LOD	0.00028	0.00407	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 C 0.0	53	NORMAL	13/03/2023	11:10:02	soil-VMW	Soil	0.00162	0.00018	0.00884	0.00021	0.00035	0.00009	0.002	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 D 0.0	54	NORMAL	13/03/2023	11:11:32	soil-VMW	Soil	0.00134	0.00015	0.01019	0.00021	0.00047	0.00009	0.00221	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 O 0.0	55	NORMAL	13/03/2023	11:13:38	soil-VMW	Soil	0.00103	0.00017	0.01644	0.00027	0.0003	0.0001	0.00301	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 A 0.1	56	NORMAL	13/03/2023	11:14:58	soil-VMW	Soil	0.00214	0.00018	0.02915	0.00037	0.00035	0.0001	0.00305	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S27/1 A 0.2	57	NORMAL	13/03/2023	11:16:34	soil-VMW	Soil	0.00128	0.00016	0.01119	0.00022	0.00029	0.00008	0.00156	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S27 paint	58	NORMAL	13/03/2023	11:28:28	soil-VMW	Soil	<LOD	0.00055	0.00187	0.00014	<LOD	0.00023	<LOD	0.00029	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 A 0.0	59	NORMAL	13/03/2023	11:32:02	soil-VMW	Soil	0.00759	0.00022	0.02677	0.00032	<LOD	0.0012	0.10556	0.00062	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 A 0.0	60	NORMAL	13/03/2023	11:33:14	soil-VMW	Soil	0.00737	0.00022	0.01516	0.00025	<LOD	0.0004	0.00878	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 A 0.0	61	NORMAL	13/03/2023	11:34:04	soil-VMW	Soil	0.00721	0.00023	0.01377	0.00025	<LOD	0.00041	0.0081	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 A 0.0	62	NORMAL	13/03/2023	11:34:59	soil-VMW	Soil	0.00729	0.00022	0.01415	0.00024	<LOD	0.00039	0.00797	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW

S28/1 B 0.0	63	NORMAL	13/03/2023	11:36:29	soil-VMW	Soil	0.00337	0.00017	0.0096	0.00019	0.00037	0.00009	0.00328	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 C 0.0	64	NORMAL	13/03/2023	11:37:35	soil-VMW	Soil	0.00505	0.00021	0.00898	0.00021	<LOD	0.00027	0.00246	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 D 0.0	65	NORMAL	13/03/2023	11:39:07	soil-VMW	Soil	0.00381	0.00023	0.00838	0.00023	<LOD	0.00031	0.0024	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 O 0.0	66	NORMAL	13/03/2023	11:40:14	soil-VMW	Soil	0.00167	0.00014	0.00784	0.00017	0.00035	0.00007	0.00194	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 A 0.1	67	NORMAL	13/03/2023	11:42:33	soil-VMW	Soil	0.00549	0.00024	0.01034	0.00024	<LOD	0.00038	0.00522	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
S28/1 A 0.2	68	NORMAL	13/03/2023	11:44:21	soil-VMW	Soil	0.00259	0.00016	0.00869	0.00018	0.00029	0.00007	0.00175	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.0	69	NORMAL	13/03/2023	11:49:07	soil-VMW	Soil	0.01806	0.0003	0.01169	0.00021	<LOD	0.00034	0.00678	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.0	70	NORMAL	13/03/2023	11:50:32	soil-VMW	Soil	0.01445	0.00027	0.01328	0.00022	<LOD	0.00051	0.01904	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.0	71	NORMAL	13/03/2023	11:51:52	soil-VMW	Soil	0.0186	0.00029	0.01221	0.00021	<LOD	0.00034	0.00691	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.0	72	NORMAL	13/03/2023	11:53:06	soil-VMW	Soil	0.01774	0.00029	0.0118	0.00021	<LOD	0.00034	0.00692	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.0	73	NORMAL	13/03/2023	11:54:05	soil-VMW	Soil	0.01363	0.00026	0.01158	0.00021	0.00034	0.00011	0.0057	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.0	74	NORMAL	13/03/2023	11:55:14	soil-VMW	Soil	0.01452	0.00027	0.01161	0.00021	<LOD	0.00032	0.00608	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 B 0.0	75	NORMAL	13/03/2023	11:56:15	soil-VMW	Soil	0.01173	0.00024	0.00845	0.00017	0.00032	0.00008	0.00245	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 C 0.0	76	NORMAL	13/03/2023	11:57:38	soil-VMW	Soil	0.00143	0.00013	0.00559	0.00013	0.00027	0.00006	0.0013	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 D 0.0	77	NORMAL	13/03/2023	11:58:50	soil-VMW	Soil	0.00209	0.00015	0.0086	0.00018	<LOD	0.00024	0.00234	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 O 0.0	78	NORMAL	13/03/2023	12:00:25	soil-VMW	Soil	0.00184	0.00015	0.00811	0.00018	0.00036	0.00007	0.00145	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.1	79	NORMAL	13/03/2023	12:02:14	soil-VMW	Soil	0.01202	0.00025	0.0131	0.00022	0.00038	0.0001	0.00409	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S28/2 A 0.2	80	NORMAL	13/03/2023	12:03:15	soil-VMW	Soil	0.00117	0.00015	0.00654	0.00016	0.00047	0.00008	0.00172	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	81	NORMAL	13/03/2023	12:14:52	soil-VMW	Soil	<LOD	0.00039	<LOD	0.00023	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	82	NORMAL	13/03/2023	12:15:59	soil-VMW	Soil	0.01452	0.00033	0.03866	0.00045	0.00779	0.00057	0.13841	0.00087	1090A	In Situ	AC	Tokanui	800224	VMW
Std	83	NORMAL	13/03/2023	12:17:10	soil-VMW	Soil	0.33128	0.00211	0.41605	0.00241	0.15296	0.00149	0.52594	0.00275	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 A 0.0	84	NORMAL	13/03/2023	12:19:00	soil-VMW	Soil	0.00116	0.00014	0.00847	0.00018	0.0026	0.00012	0.00453	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 A 0.0	85	NORMAL	13/03/2023	12:20:22	soil-VMW	Soil	0.00133	0.00014	0.00965	0.00018	0.00292	0.00011	0.00513	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 A 0.0	86	NORMAL	13/03/2023	12:21:43	soil-VMW	Soil	0.00101	0.00013	0.00941	0.00017	0.00265	0.00011	0.00488	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 B 0.0	87	NORMAL	13/03/2023	12:22:54	soil-VMW	Soil	0.00106	0.00013	0.00766	0.00016	0.00036	0.00007	0.00234	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 C 0.0	88	NORMAL	13/03/2023	12:24:06	soil-VMW	Soil	0.00087	0.00012	0.00683	0.00015	0.00035	0.00007	0.00176	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 D 0.0	89	NORMAL	13/03/2023	12:25:52	soil-VMW	Soil	0.00116	0.00014	0.00867	0.00018	0.00031	0.00008	0.00229	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 O 0.0	90	NORMAL	13/03/2023	12:27:09	soil-VMW	Soil	0.00131	0.00014	0.00604	0.00015	0.0003	0.00007	0.00174	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 A 0.1	91	NORMAL	13/03/2023	12:28:28	soil-VMW	Soil	0.0013	0.00014	0.00694	0.00016	0.00288	0.0001	0.00324	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B30/1 A 0.2	92	NORMAL	13/03/2023	12:29:32	soil-VMW	Soil	0.00167	0.00014	0.0048	0.00014	0.00052	0.00007	0.00135	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 A 0.0	93	NORMAL	13/03/2023	12:36:25	soil-VMW	Soil	0.00217	0.00015	0.0388	0.00036	0.00074	0.00011	0.00721	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 A 0.0	94	NORMAL	13/03/2023	12:37:37	soil-VMW	Soil	0.00174	0.00013	0.03458	0.00031	0.00038	0.00009	0.0049	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 A 0.0	95	NORMAL	13/03/2023	12:39:32	soil-VMW	Soil	0.00202	0.00014	0.03621	0.00033	0.00064	0.0001	0.00549	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 B 0.0	96	NORMAL	13/03/2023	12:40:43	soil-VMW	Soil	0.00126	0.00016	0.00946	0.00021	0.00078	0.00009	0.00256	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 C 0.0	97	NORMAL	13/03/2023	12:42:06	soil-VMW	Soil	0.00172	0.0002	0.00705	0.00022	0.00051	0.0001	0.00212	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 D 0.0	98	NORMAL	13/03/2023	12:43:27	soil-VMW	Soil	0.00223	0.00014	0.00805	0.00016	0.00097	0.00008	0.00239	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 O 0.0	99	NORMAL	13/03/2023	12:44:31	soil-VMW	Soil	0.00183	0.00019	0.0068	0.0002	0.00074	0.0001	0.00193	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 A 0.1	100	NORMAL	13/03/2023	12:46:14	soil-VMW	Soil	0.00307	0.00016	0.02529	0.00029	0.00093	0.0001	0.00449	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B30/2 A 0.2	101	NORMAL	13/03/2023	12:49:01	soil-VMW	Soil	0.00296	0.00016	0.00727	0.00016	0.00108	0.00008	0.00219	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 A 0.0	102	NORMAL	13/03/2023	13:19:19	soil-VMW	Soil	0.00312	0.00021	0.0292	0.0004	<LOD	0.0006	0.01545	0.00025	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 A 0.0	103	NORMAL	13/03/2023	13:20:49	soil-VMW	Soil	0.00257	0.00019	0.03002	0.00038	0.00079	0.00018	0.01389	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 A 0.0	104	NORMAL	13/03/2023	13:22:24	soil-VMW	Soil	0.00302	0.00016	0.04762	0.00042	0.0005	0.00016	0.01603	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 B 0.0	105	NORMAL	13/03/2023	13:24:36	soil-VMW	Soil	0.00145	0.00016	0.01182	0.00022	<LOD	0.00036	0.00648	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 C 0.0	106	NORMAL	13/03/2023	13:25:55	soil-VMW	Soil	0.00211	0.0002	0.01037	0.00024	0.00055	0.00011	0.00303	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 D 0.0	107	NORMAL	13/03/2023	13:27:29	soil-VMW	Soil	0.00258	0.00015	0.00923	0.00018	0.00049	0.00008	0.00294	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 O 0.0	108	NORMAL	13/03/2023	13:28:38	soil-VMW	Soil	0.00229	0.00015	0.00615	0.00015	0.00044	0.00007	0.00155	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 A 0.1	109	NORMAL	13/03/2023	13:31:13	soil-VMW	Soil	0.00377	0.00017	0.01696	0.00024	0.00079	0.00015	0.01298	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B33/1 A 0.2	110	NORMAL	13/03/2023	13:33:56	soil-VMW	Soil	0.00353	0.00016	0.00835	0.00017	0.00074	0.00007	0.00153	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 A 0.0	111	NORMAL	13/03/2023	13:40:23	soil-VMW	Soil	0.00399	0.00016	0.01708	0.00023	<LOD	0.00041	0.01196	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 B 0.0	112	NORMAL	13/03/2023	13:41:28	soil-VMW	Soil	0.00372	0.00017	0.01675	0.00024	0.00054	0.00012	0.00844	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 C 0.0	113	NORMAL	13/03/2023	13:42:38	soil-VMW	Soil	0.00226	0.00016	0.01129	0.00021	0.00064	0.00009	0.00318	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 C 0.0	114	NORMAL	13/03/2023	13:43:32	soil-VMW	Soil	0.00306	0.00017	0.01139	0.00021	0.00074	0.0001	0.00378	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 C 0.0	115	NORMAL	13/03/2023	13:44:38	soil-VMW	Soil	0.00257	0.00014	0.01081	0.00018	0.00066	0.00008	0.00366	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 D 0.0	116	NORMAL	13/03/2023	13:45:47	soil-VMW	Soil	0.00271	0.00016	0.01003	0.0002	0.00052	0.00009	0.00294	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 O 0.0	117	NORMAL	13/03/2023	13:47:43	soil-VMW	Soil	0.00215	0.00016	0.01319	0.00022	0.00057	0.00009	0.00269	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 A 0.1	118	NORMAL	13/03/2023	13:49:19	soil-VMW	Soil	0.00436	0.00018	0.01609	0.00024	0.00071	0.00014	0.0103	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B33/2 A 0.2	119	NORMAL	13/03/2023	13:50:55	soil-VMW	Soil	0.00328	0.00016	0.01057	0.00019	0.00074	0.00012	0.00832	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 A 0.0	120	NORMAL	13/03/2023	14:01:59	soil-VMW	Soil	0.00317	0.00017	0.0152	0.00024	0.00075	0.00009	0.00306	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 A 0.0	121	NORMAL	13/03/2023	14:03:08	soil-VMW	Soil	0.00309	0.00017	0.01661	0.00025	0.00071	0.00009	0.00308	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 A 0.0	122	NORMAL	13/03/2023	14:04:51	soil-VMW	Soil	0.00323	0.00019	0.01798	0.00028	0.00083	0.0001	0.00301	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 A 0.0	123	NORMAL	13/03/2023	14:08:48	soil-VMW	Soil	0.00271	0.00019	0.01893	0.0003	0.0009	0.00011	0.00343	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 B 0.0	124	NORMAL	13/03/2023	14:09:53	soil-VMW	Soil	0.00162	0.00014	0.00571	0.00014	0.00047	0.00007	0.00188	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 C 0.0	125	NORMAL	13/03/2023	14:11:07	soil-VMW	Soil	0.00237	0.00018	0.00565	0.00018	0.00045	0.00009	0.00171	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 D 0.0	126	NORMAL	13/03/2023	14:12:12	soil-VMW	Soil	0.0016	0.00014	0.00501	0.00014	0.00047	0.00007	0.00153	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 O 0.0	127	NORMAL	13/03/2023	14:13:32	soil-VMW	Soil	0.00176	0.00016	0.0061	0.00017	0.00056	0.00008	0.00135	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 A 0.1	128	NORMAL	13/03/2023	14:16:00	soil-VMW	Soil	0.00277	0.00016	0.00983	0.00019	0.0009	0.00009	0.00228	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B36/1 A 0.2	129	NORMAL	13/03/2023	14:17:47	soil-VMW	Soil	0.00341	0.00017	0.00901	0.00019	0.00069	0.00009	0.00235	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW

B37/1 A 0.0	130	NORMAL	13/03/2023	14:22:29	soil-VMW	Soil	0.00247	0.00016	0.00955	0.00019	0.00179	0.00012	0.00725	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 A 0.0	131	NORMAL	13/03/2023	14:23:33	soil-VMW	Soil	0.0028	0.00017	0.01084	0.00021	0.00198	0.00014	0.00864	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 A 0.0	132	NORMAL	13/03/2023	14:24:39	soil-VMW	Soil	0.00298	0.00018	0.0107	0.00021	0.00205	0.00014	0.00847	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 B 0.0	133	NORMAL	13/03/2023	14:25:50	soil-VMW	Soil	0.00093	0.00012	0.00518	0.00013	0.00041	0.00006	0.00131	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 C 0.0	134	NORMAL	13/03/2023	14:26:45	soil-VMW	Soil	0.00185	0.00015	0.00628	0.00016	0.00051	0.00007	0.00145	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 D 0.0	135	NORMAL	13/03/2023	14:28:25	soil-VMW	Soil	0.00204	0.00015	0.00534	0.00015	0.00041	0.00007	0.00149	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 O 0.0	136	NORMAL	13/03/2023	14:30:20	soil-VMW	Soil	0.00157	0.00014	0.00487	0.00013	0.00039	0.00006	0.00115	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 A 0.1	137	NORMAL	13/03/2023	14:33:07	soil-VMW	Soil	0.00313	0.00019	0.00676	0.00018	0.00085	0.0001	0.00263	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 A 0.2	138	NORMAL	13/03/2023	14:34:17	soil-VMW	Soil	0.00223	0.00016	0.00705	0.00017	0.00106	0.0001	0.00377	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B37/1 A 0.2	139	NORMAL	13/03/2023	14:36:21	soil-VMW	Soil	<LOD	0.01928	0.02949	0.00389	<LOD	0.00253	<LOD	0.00265	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 A 0.0	140	NORMAL	13/03/2023	14:41:34	soil-VMW	Soil	0.00141	0.00013	0.0072	0.00015	0.00032	0.00006	0.00141	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 A 0.0	141	NORMAL	13/03/2023	14:43:57	soil-VMW	Soil	0.00146	0.00013	0.00835	0.00016	0.00042	0.00006	0.00136	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 A 0.0	142	NORMAL	13/03/2023	14:44:49	soil-VMW	Soil	0.00146	0.00014	0.007	0.00016	0.00033	0.00006	0.00119	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 B 0.0	143	NORMAL	13/03/2023	14:46:15	soil-VMW	Soil	0.00149	0.00014	0.00564	0.00014	0.00044	0.00007	0.00152	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 C 0.0	144	NORMAL	13/03/2023	14:48:29	soil-VMW	Soil	0.00143	0.00014	0.00663	0.00015	0.00045	0.00007	0.00109	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 D 0.0	145	NORMAL	13/03/2023	14:49:42	soil-VMW	Soil	0.00141	0.00014	0.00668	0.00015	0.00053	0.00006	0.00095	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 O 0.0	146	NORMAL	13/03/2023	14:50:47	soil-VMW	Soil	0.00159	0.00014	0.00671	0.00015	0.00037	0.00007	0.00123	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 A 0.1	147	NORMAL	13/03/2023	14:52:42	soil-VMW	Soil	0.00257	0.00015	0.00665	0.00015	0.00057	0.00007	0.00146	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B39/1 A 0.2	148	NORMAL	13/03/2023	14:53:56	soil-VMW	Soil	0.00287	0.00017	0.0068	0.00017	0.00043	0.00008	0.00166	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 A 0.0	149	NORMAL	13/03/2023	14:58:25	soil-VMW	Soil	0.00177	0.00014	0.07617	0.00051	0.00093	0.00016	0.01691	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 A 0.0	150	NORMAL	13/03/2023	14:59:53	soil-VMW	Soil	0.00176	0.00014	0.07673	0.00051	0.0009	0.00016	0.01702	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 A 0.0	151	NORMAL	13/03/2023	15:00:57	soil-VMW	Soil	0.00185	0.00015	0.05551	0.00045	<LOD	0.00046	0.01467	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 B 0.0	152	NORMAL	13/03/2023	15:02:39	soil-VMW	Soil	0.00173	0.00014	0.00942	0.00017	0.00028	0.00009	0.00392	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 C 0.0	153	NORMAL	13/03/2023	15:03:42	soil-VMW	Soil	0.00194	0.00016	0.00702	0.00018	0.00047	0.00009	0.00242	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 D 0.0	154	NORMAL	13/03/2023	15:05:05	soil-VMW	Soil	0.00124	0.00014	0.00608	0.00015	0.0003	0.00007	0.00195	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 O 0.0	155	NORMAL	13/03/2023	15:06:48	soil-VMW	Soil	0.00132	0.00016	0.00553	0.00017	0.00036	0.00008	0.00181	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 A 0.1	156	NORMAL	13/03/2023	15:09:26	soil-VMW	Soil	0.00395	0.0002	0.01227	0.00023	0.00082	0.00013	0.00692	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B38/1 A 0.2	157	NORMAL	13/03/2023	15:10:38	soil-VMW	Soil	0.00452	0.00019	0.0073	0.00017	0.00048	0.00008	0.00155	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 A 0.0	158	NORMAL	13/03/2023	15:22:34	soil-VMW	Soil	0.00265	0.00017	0.01725	0.00026	0.00076	0.00011	0.00452	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 B 0.0	159	NORMAL	13/03/2023	15:23:34	soil-VMW	Soil	0.00176	0.00014	0.00597	0.00015	0.00056	0.00008	0.00221	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 C 0.0	160	NORMAL	13/03/2023	15:25:02	soil-VMW	Soil	0.00117	0.00013	0.0051	0.00013	0.00025	0.00006	0.00132	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 D 0.0	161	NORMAL	13/03/2023	15:26:37	soil-VMW	Soil	0.00245	0.00017	0.00543	0.00016	0.00051	0.00008	0.00192	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 O 0.0	162	NORMAL	13/03/2023	15:28:12	soil-VMW	Soil	0.00218	0.00018	0.00499	0.00016	0.00032	0.00008	0.00172	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 A 0.1	163	NORMAL	13/03/2023	15:29:25	soil-VMW	Soil	0.00361	0.0002	0.00664	0.00019	0.00079	0.0001	0.00274	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 A 0.1	164	NORMAL	13/03/2023	15:30:21	soil-VMW	Soil	0.00299	0.00018	0.00801	0.00019	0.0009	0.0001	0.00314	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 A 0.1	165	NORMAL	13/03/2023	15:31:16	soil-VMW	Soil	0.00359	0.00018	0.00703	0.00017	0.00084	0.00009	0.00252	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B42/1 A 0.2	166	NORMAL	13/03/2023	15:32:43	soil-VMW	Soil	0.00106	0.00015	0.00377	0.00014	0.00043	0.00008	0.00158	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 A 0.0	167	NORMAL	13/03/2023	15:37:47	soil-VMW	Soil	0.00205	0.00028	0.00838	0.0003	0.00062	0.00018	0.00519	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 A 0.0	168	NORMAL	13/03/2023	15:38:42	soil-VMW	Soil	0.00348	0.00022	0.01279	0.00027	0.00075	0.00015	0.00699	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 A 0.0	169	NORMAL	13/03/2023	15:39:39	soil-VMW	Soil	0.00319	0.0002	0.01215	0.00025	<LOD	0.00044	0.00856	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 B 0.0	170	NORMAL	13/03/2023	15:40:38	soil-VMW	Soil	0.00223	0.00016	0.01122	0.00021	0.00052	0.00009	0.00322	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 C 0.0	171	NORMAL	13/03/2023	15:41:45	soil-VMW	Soil	0.00142	0.00016	0.0065	0.00017	<LOD	0.00024	0.00192	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 D 0.0	172	NORMAL	13/03/2023	15:42:44	soil-VMW	Soil	0.00211	0.00016	0.00767	0.00017	0.00029	0.00009	0.00283	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 O 0.0	173	NORMAL	13/03/2023	15:43:46	soil-VMW	Soil	<LOD	0.00475	0.01042	0.00083	<LOD	0.00103	0.00374	0.00036	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	1	NORMAL	14/03/2023	8:46:01	soil-VMW	Soil	<LOD	0.00038	<LOD	0.00022	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	2	NORMAL	14/03/2023	8:47:52	soil-VMW	Soil	0.01411	0.00033	0.03859	0.00046	0.00732	0.00056	0.1359	0.00086	1090A	In Situ	AC	Tokanui	800224	VMW
Std	3	NORMAL	14/03/2023	8:49:15	soil-VMW	Soil	0.32357	0.00208	0.41077	0.00238	0.14699	0.00147	0.51967	0.00273	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 A 0.1	4	NORMAL	14/03/2023	9:01:34	soil-VMW	Soil	0.00264	0.00017	0.0089	0.00019	0.00072	0.00011	0.00475	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B42/2 A 0.2	5	NORMAL	14/03/2023	9:03:00	soil-VMW	Soil	0.00202	0.00015	0.00654	0.00016	0.00058	0.00009	0.0027	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 A 0.0	6	NORMAL	14/03/2023	9:20:39	soil-VMW	Soil	0.00245	0.00015	0.02165	0.00027	0.00056	0.00009	0.00332	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 A 0.0	7	NORMAL	14/03/2023	9:22:26	soil-VMW	Soil	0.00213	0.00016	0.01594	0.00025	0.00071	0.0001	0.00316	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 A 0.0	8	NORMAL	14/03/2023	9:23:23	soil-VMW	Soil	0.00162	0.00014	0.01978	0.00026	0.00032	0.00009	0.00416	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 B 0.0	9	NORMAL	14/03/2023	9:25:17	soil-VMW	Soil	0.00231	0.00016	0.01167	0.00021	0.00051	0.00008	0.0025	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 C 0.0	10	NORMAL	14/03/2023	9:26:24	soil-VMW	Soil	0.00234	0.00017	0.01434	0.00025	0.00032	0.00009	0.00232	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 D 0.0	11	NORMAL	14/03/2023	9:27:24	soil-VMW	Soil	0.00207	0.00014	0.00937	0.00017	0.00049	0.00007	0.00185	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 O 0.0	12	NORMAL	14/03/2023	9:29:22	soil-VMW	Soil	0.00139	0.00014	0.00782	0.00017	0.00052	0.00007	0.0015	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 A 0.1	13	NORMAL	14/03/2023	9:30:57	soil-VMW	Soil	0.00314	0.00019	0.01285	0.00024	0.00075	0.00011	0.0037	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B44/1 A 0.2	14	NORMAL	14/03/2023	9:32:32	soil-VMW	Soil	0.00269	0.00017	0.00881	0.00019	0.00069	0.00009	0.00253	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 A 0.0	15	NORMAL	14/03/2023	9:35:54	soil-VMW	Soil	0.00167	0.00017	0.01266	0.00025	0.00082	0.00012	0.00524	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 B 0.0	16	NORMAL	14/03/2023	9:38:16	soil-VMW	Soil	0.00195	0.00016	0.0075	0.00017	0.00048	0.00008	0.00212	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 C 0.0	17	NORMAL	14/03/2023	9:39:56	soil-VMW	Soil	0.00172	0.00014	0.0075	0.00016	0.00056	0.00007	0.00177	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 D 0.0	18	NORMAL	14/03/2023	9:41:03	soil-VMW	Soil	0.00157	0.00015	0.00582	0.00016	0.00033	0.00008	0.00157	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 O 0.0	19	NORMAL	14/03/2023	9:42:08	soil-VMW	Soil	0.00233	0.00015	0.00733	0.00016	0.00054	0.00007	0.00163	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 A 0.1	20	NORMAL	14/03/2023	9:43:25	soil-VMW	Soil	0.00293	0.00018	0.01119	0.00022	0.0006	0.0001	0.00304	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 A 0.1	21	NORMAL	14/03/2023	9:44:37	soil-VMW	Soil	0.00281	0.00017	0.01239	0.00022	0.00077	0.0001	0.0036	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B44/2 A 0.1	22	NORMAL	14/03/2023	9:45:42	soil-VMW	Soil	0.00303	0.00017	0.01127	0.00021	0.00084	0.0001	0.00324	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B45/1 A 0.0	23	NORMAL	14/03/2023	9:52:11	soil-VMW	Soil	0.00194	0.00015	0.00979	0.00019	0.00067	0.0001	0.00398	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW

B45/1 A 0.0	24	NORMAL	14/03/2023	9:54:07	soil-VMW	Soil	0.0017	0.00015	0.00815	0.00018	0.0006	0.00009	0.00335	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B45/1 A 0.0	25	NORMAL	14/03/2023	9:55:04	soil-VMW	Soil	0.00224	0.00014	0.01171	0.00018	0.00059	0.00009	0.00491	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B45/1 B 0.0	26	NORMAL	14/03/2023	9:56:41	soil-VMW	Soil	0.0008	0.00014	0.00447	0.00014	0.00027	0.00007	0.00128	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B45/1 C 0.0	27	NORMAL	14/03/2023	9:58:45	soil-VMW	Soil	0.00192	0.00014	0.0065	0.00015	0.00054	0.00007	0.00198	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B45/1 A 0.1	28	NORMAL	14/03/2023	10:01:24	soil-VMW	Soil	0.00148	0.00015	0.00761	0.00017	<LOD	0.00036	0.00776	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B45/1 A 0.2	29	NORMAL	14/03/2023	10:03:18	soil-VMW	Soil	0.00236	0.00016	0.00577	0.00015	0.00058	0.00007	0.00143	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 A 0.0	30	NORMAL	14/03/2023	10:06:58	soil-VMW	Soil	0.00219	0.00017	0.00972	0.0002	0.00084	0.00011	0.00419	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 B 0.0	31	NORMAL	14/03/2023	10:08:30	soil-VMW	Soil	0.00167	0.00015	0.0058	0.00015	0.00044	0.00008	0.00195	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 C 0.0	32	NORMAL	14/03/2023	10:09:36	soil-VMW	Soil	0.00175	0.00015	0.00549	0.00016	0.00039	0.00008	0.00155	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 D 0.0	33	NORMAL	14/03/2023	10:11:18	soil-VMW	Soil	0.00201	0.00014	0.00526	0.00014	0.00046	0.00007	0.00147	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 A 0.1	34	NORMAL	14/03/2023	10:12:58	soil-VMW	Soil	0.00194	0.00016	0.00692	0.00017	0.00054	0.00009	0.00333	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 A 0.1	35	NORMAL	14/03/2023	10:14:19	soil-VMW	Soil	0.00174	0.00015	0.00676	0.00016	0.00056	0.00009	0.00318	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 A 0.1	36	NORMAL	14/03/2023	10:15:34	soil-VMW	Soil	0.00258	0.00018	0.00814	0.0002	0.00089	0.00011	0.00373	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B45/2 A 0.2	37	NORMAL	14/03/2023	10:18:11	soil-VMW	Soil	0.00233	0.00018	0.00513	0.00017	0.00073	0.00009	0.00158	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 A 0.0	38	NORMAL	14/03/2023	10:25:33	soil-VMW	Soil	0.0027	0.00018	0.02068	0.0003	0.0006	0.00011	0.00431	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 A 0.0	39	NORMAL	14/03/2023	10:26:25	soil-VMW	Soil	0.0021	0.00017	0.01493	0.00026	0.0005	0.00011	0.00417	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 A 0.0	40	NORMAL	14/03/2023	10:27:41	soil-VMW	Soil	0.00217	0.00017	0.02047	0.00029	0.00077	0.00011	0.00434	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 B 0.0	41	NORMAL	14/03/2023	10:28:55	soil-VMW	Soil	0.00156	0.00016	0.01153	0.00022	0.00038	0.00008	0.00197	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 C 0.0	42	NORMAL	14/03/2023	10:30:18	soil-VMW	Soil	0.00068	0.00011	0.00999	0.00017	0.00031	0.00006	0.00117	0.00007	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 D 0.0	43	NORMAL	14/03/2023	10:31:26	soil-VMW	Soil	0.00068	0.00011	0.0099	0.00017	0.00045	0.00006	0.00118	0.00007	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 O 0.0	44	NORMAL	14/03/2023	10:33:26	soil-VMW	Soil	0.00173	0.00015	0.01189	0.00021	0.00053	0.00008	0.00195	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 A 0.1	45	NORMAL	14/03/2023	10:35:18	soil-VMW	Soil	0.00239	0.00017	0.01424	0.00024	0.00057	0.0001	0.00367	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B46/1 A 0.2	46	NORMAL	14/03/2023	10:37:03	soil-VMW	Soil	0.00349	0.00019	0.00798	0.00019	0.00078	0.00009	0.00212	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 A 0.0	47	NORMAL	14/03/2023	10:40:57	soil-VMW	Soil	0.00139	0.00017	0.00591	0.00018	0.00043	0.00009	0.00225	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 B 0.0	48	NORMAL	14/03/2023	10:44:56	soil-VMW	Soil	0.00188	0.00014	0.00625	0.00015	0.00035	0.00007	0.00176	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 C 0.0	49	NORMAL	14/03/2023	10:46:41	soil-VMW	Soil	0.00144	0.00014	0.00551	0.00014	0.00032	0.00007	0.00134	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 D 0.0	50	NORMAL	14/03/2023	10:47:45	soil-VMW	Soil	0.00243	0.00016	0.00647	0.00016	0.00035	0.00008	0.00181	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 O 0.0	51	NORMAL	14/03/2023	10:49:25	soil-VMW	Soil	0.00179	0.00015	0.00587	0.00015	0.00041	0.00007	0.00162	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 A 0.1	52	NORMAL	14/03/2023	10:50:48	soil-VMW	Soil	0.00172	0.00015	0.00598	0.00016	0.00065	0.00008	0.00232	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 A 0.1	53	NORMAL	14/03/2023	10:51:44	soil-VMW	Soil	0.00143	0.00017	0.00562	0.00017	0.00047	0.00009	0.00216	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 A 0.1	54	NORMAL	14/03/2023	10:53:31	soil-VMW	Soil	0.00163	0.00015	0.00654	0.00016	0.0006	0.00008	0.00223	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B46/2 A 0.2	55	NORMAL	14/03/2023	10:55:31	soil-VMW	Soil	0.00166	0.00014	0.00593	0.00015	0.00045	0.00008	0.00217	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 A 0.0	56	NORMAL	14/03/2023	10:58:26	soil-VMW	Soil	0.005	0.00024	0.01101	0.00026	0.00094	0.00012	0.0031	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 A 0.0	57	NORMAL	14/03/2023	10:59:19	soil-VMW	Soil	0.00399	0.0003	0.0109	0.00032	0.00054	0.00014	0.00304	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 A 0.0	58	NORMAL	14/03/2023	11:00:19	soil-VMW	Soil	0.00261	0.00021	0.00983	0.00024	0.00059	0.00011	0.00269	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 B 0.0	59	NORMAL	14/03/2023	11:01:53	soil-VMW	Soil	0.00287	0.00017	0.01068	0.0002	0.00056	0.00011	0.00533	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 C 0.0	60	NORMAL	14/03/2023	11:03:09	soil-VMW	Soil	0.00135	0.00016	0.00597	0.00017	0.00046	0.00009	0.00281	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 D 0.0	61	NORMAL	14/03/2023	11:04:18	soil-VMW	Soil	0.00116	0.00014	0.00417	0.00013	0.00022	0.00007	0.00168	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 O 0.0	62	NORMAL	14/03/2023	11:05:26	soil-VMW	Soil	0.00181	0.00018	0.00485	0.00017	0.00049	0.00009	0.0019	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 A 0.1	63	NORMAL	14/03/2023	11:06:44	soil-VMW	Soil	0.00494	0.00022	0.01125	0.00024	0.00084	0.00011	0.00281	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B47/1 A 0.2	64	NORMAL	14/03/2023	11:07:49	soil-VMW	Soil	0.00535	0.00023	0.01448	0.00027	0.00076	0.00012	0.00437	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 A 0.0	65	NORMAL	14/03/2023	11:13:56	soil-VMW	Soil	0.00218	0.00016	0.01586	0.00025	0.00057	0.00012	0.0069	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 B 0.0	66	NORMAL	14/03/2023	11:15:19	soil-VMW	Soil	0.00322	0.00017	0.01334	0.00023	0.00065	0.00012	0.00638	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 C 0.0	67	NORMAL	14/03/2023	11:16:21	soil-VMW	Soil	0.00228	0.00016	0.00902	0.00018	0.00058	0.0001	0.00384	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 D 0.0	68	NORMAL	14/03/2023	11:17:45	soil-VMW	Soil	0.00283	0.00016	0.01139	0.0002	0.00037	0.0001	0.00525	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 O 0.0	69	NORMAL	14/03/2023	11:19:03	soil-VMW	Soil	0.00196	0.00017	0.00777	0.00019	0.00033	0.0001	0.00365	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 A 0.1	70	NORMAL	14/03/2023	11:20:21	soil-VMW	Soil	0.00191	0.00017	0.00768	0.00019	0.00049	0.0001	0.00348	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 A 0.1	71	NORMAL	14/03/2023	11:21:32	soil-VMW	Soil	0.00244	0.00015	0.01004	0.00018	0.00058	0.0001	0.0052	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 A 0.1	72	NORMAL	14/03/2023	11:22:56	soil-VMW	Soil	0.0028	0.00016	0.00983	0.00018	0.0007	0.0001	0.00487	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B47/2 A 0.2	73	NORMAL	14/03/2023	11:24:57	soil-VMW	Soil	0.00264	0.00021	0.00619	0.0002	0.00066	0.00011	0.00247	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 A 0.0	74	NORMAL	14/03/2023	11:34:13	soil-VMW	Soil	0.00255	0.00017	0.00933	0.00019	0.0007	0.0001	0.00406	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 A 0.0	75	NORMAL	14/03/2023	11:35:29	soil-VMW	Soil	0.00242	0.00017	0.0075	0.00018	0.00062	0.00011	0.0046	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 A 0.0	76	NORMAL	14/03/2023	11:37:04	soil-VMW	Soil	0.00258	0.00017	0.00814	0.00019	0.00049	0.00011	0.0051	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 B 0.0	77	NORMAL	14/03/2023	11:38:31	soil-VMW	Soil	0.00165	0.00017	0.00689	0.00018	0.00046	0.00009	0.0022	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 C 0.0	78	NORMAL	14/03/2023	11:39:50	soil-VMW	Soil	0.00155	0.00017	0.00618	0.00018	0.00043	0.00009	0.00194	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 D 0.0	79	NORMAL	14/03/2023	11:40:49	soil-VMW	Soil	0.00087	0.00014	0.00373	0.00013	0.00036	0.00007	0.00133	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 A 0.1	80	NORMAL	14/03/2023	11:43:18	soil-VMW	Soil	0.00314	0.00019	0.00827	0.0002	0.00074	0.0001	0.0034	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B48/1 A 0.2	81	NORMAL	14/03/2023	11:44:31	soil-VMW	Soil	0.00369	0.0002	0.00693	0.00018	0.0007	0.0001	0.00252	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 A 0.0	82	NORMAL	14/03/2023	11:50:20	soil-VMW	Soil	0.0023	0.00015	0.00897	0.00017	0.00066	0.00008	0.00309	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 B 0.0	83	NORMAL	14/03/2023	11:51:37	soil-VMW	Soil	0.00126	0.00013	0.00577	0.00014	0.0003	0.00006	0.00148	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 C 0.0	84	NORMAL	14/03/2023	11:52:42	soil-VMW	Soil	0.00167	0.00015	0.00469	0.00015	0.00022	0.00007	0.00159	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 D 0.0	85	NORMAL	14/03/2023	11:53:43	soil-VMW	Soil	0.00091	0.00015	0.00462	0.00015	0.00032	0.00007	0.00134	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 A 0.1	86	NORMAL	14/03/2023	11:55:39	soil-VMW	Soil	0.00216	0.00015	0.00801	0.00017	0.00037	0.00008	0.00323	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 A 0.1	87	NORMAL	14/03/2023	11:56:45	soil-VMW	Soil	0.00184	0.00014	0.00675	0.00016	0.00037	0.00008	0.00272	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 A 0.1	88	NORMAL	14/03/2023	11:57:50	soil-VMW	Soil	0.0016	0.00014	0.00676	0.00016	0.0005	0.00008	0.00246	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B48/2 A 0.2	89	NORMAL	14/03/2023	11:59:42	soil-VMW	Soil	0.0013	0.00014	0.00321	0.00012	0.00043	0.00009	0.00269	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 A 0.0	90	NORMAL	14/03/2023	12:07:15	soil-VMW	Soil	0.00099	0.00013	0.01291	0.0002	0.00038	0.00008	0.00273	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW

B50/1 A 0.0	91	NORMAL	14/03/2023	12:08:11	soil-VMW	Soil	0.0013	0.00013	0.01065	0.00018	0.00048	0.00008	0.00279	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 A 0.0	92	NORMAL	14/03/2023	12:09:33	soil-VMW	Soil	0.001	0.00012	0.0114	0.00018	0.00039	0.00007	0.00246	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 B 0.0	93	NORMAL	14/03/2023	12:10:54	soil-VMW	Soil	0.00096	0.00014	0.00479	0.00014	0.00024	0.00007	0.00106	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	94	NORMAL	14/03/2023	12:13:10	soil-VMW	Soil	<LOD	0.00038	<LOD	0.00023	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	95	NORMAL	14/03/2023	12:14:13	soil-VMW	Soil	0.01343	0.00032	0.03899	0.00046	0.008	0.00057	0.13713	0.00087	1090A	In Situ	AC	Tokanui	800224	VMW
Std	96	NORMAL	14/03/2023	12:15:16	soil-VMW	Soil	0.33241	0.00212	0.42116	0.00244	0.15057	0.00149	0.53292	0.00279	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 C 0.0	97	NORMAL	14/03/2023	12:17:09	soil-VMW	Soil	0.00062	0.00012	0.00684	0.00015	<LOD	0.00019	0.00132	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 D 0.0	98	NORMAL	14/03/2023	12:18:10	soil-VMW	Soil	0.00135	0.00015	0.00528	0.00015	0.00039	0.00007	0.00147	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 O 0.0	99	NORMAL	14/03/2023	12:19:47	soil-VMW	Soil	0.00084	0.00015	0.00595	0.00017	0.00037	0.00008	0.00132	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 A 0.1	100	NORMAL	14/03/2023	12:21:46	soil-VMW	Soil	0.00354	0.00017	0.00826	0.00018	0.00057	0.00008	0.00223	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B50/1 A 0.2	101	NORMAL	14/03/2023	12:22:59	soil-VMW	Soil	0.00064	0.00015	0.00247	0.00013	0.00032	0.00008	0.00189	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B50/2 A 0.0	102	NORMAL	14/03/2023	12:28:31	soil-VMW	Soil	0.00167	0.00018	0.00855	0.00021	0.00105	0.00009	0.00179	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B50/2 B 0.0	103	NORMAL	14/03/2023	12:30:07	soil-VMW	Soil	0.00102	0.00013	0.00582	0.00014	0.00046	0.00007	0.00148	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B50/2 C 0.0	104	NORMAL	14/03/2023	12:31:05	soil-VMW	Soil	0.00089	0.00012	0.00563	0.00014	0.00031	0.00006	0.00089	0.00007	1090A	In Situ	AC	Tokanui	800224	VMW
B50/2 D 0.0	105	NORMAL	14/03/2023	12:32:02	soil-VMW	Soil	0.00219	0.00015	0.00678	0.00016	0.00035	0.00007	0.00148	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B50/2 O 0.0	106	NORMAL	14/03/2023	12:33:14	soil-VMW	Soil	0.00111	0.00013	0.0047	0.00013	0.00037	0.00006	0.00074	0.00007	1090A	In Situ	AC	Tokanui	800224	VMW
B50/2 A 0.1	107	NORMAL	14/03/2023	12:34:29	soil-VMW	Soil	0.0016	0.00017	0.00423	0.00015	0.00087	0.00009	0.0018	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B50/2 A 0.2	108	NORMAL	14/03/2023	12:35:35	soil-VMW	Soil	0.00196	0.00017	0.00332	0.00014	0.0005	0.00008	0.00164	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 A 0.0	109	NORMAL	14/03/2023	12:41:30	soil-VMW	Soil	0.00152	0.00014	0.04084	0.00037	0.00043	0.00007	0.00181	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 B 0.0	110	NORMAL	14/03/2023	12:42:55	soil-VMW	Soil	0.0016	0.00014	0.0068	0.00016	0.00054	0.00008	0.00181	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 C 0.0	111	NORMAL	14/03/2023	12:43:56	soil-VMW	Soil	0.00204	0.00016	0.00685	0.00017	0.00046	0.00008	0.0015	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 D 0.0	112	NORMAL	14/03/2023	12:44:55	soil-VMW	Soil	0.00176	0.00014	0.00667	0.00015	0.00057	0.00006	0.00093	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 O 0.0	113	NORMAL	14/03/2023	12:46:03	soil-VMW	Soil	0.00174	0.00015	0.0164	0.00024	0.00046	0.00007	0.00122	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 A 0.1	114	NORMAL	14/03/2023	12:47:35	soil-VMW	Soil	0.00439	0.00018	0.00774	0.00018	0.00065	0.00008	0.00163	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 A 0.1	115	NORMAL	14/03/2023	12:48:29	soil-VMW	Soil	0.00337	0.00019	0.00691	0.00018	0.00051	0.00008	0.00157	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 A 0.1	116	NORMAL	14/03/2023	12:49:44	soil-VMW	Soil	0.00377	0.00019	0.00664	0.00017	0.00057	0.00008	0.00143	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B51/1 A 0.2	117	NORMAL	14/03/2023	12:50:41	soil-VMW	Soil	0.00359	0.00018	0.00714	0.00018	0.00053	0.00008	0.00128	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/2 A 0.0	118	NORMAL	14/03/2023	12:54:46	soil-VMW	Soil	0.00233	0.00015	0.01206	0.0002	0.0005	0.00008	0.00219	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/2 B 0.0	119	NORMAL	14/03/2023	12:55:56	soil-VMW	Soil	0.00168	0.00015	0.00701	0.00017	0.00044	0.00008	0.00182	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B51/2 C 0.0	120	NORMAL	14/03/2023	12:56:57	soil-VMW	Soil	0.00207	0.00015	0.00691	0.00016	0.00047	0.00007	0.00183	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/2 D 0.0	121	NORMAL	14/03/2023	12:57:56	soil-VMW	Soil	0.00296	0.00016	0.0085	0.00018	0.00045	0.00008	0.00181	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B51/2 A 0.1	122	NORMAL	14/03/2023	12:59:46	soil-VMW	Soil	0.00264	0.00017	0.00829	0.00019	0.00059	0.00009	0.00228	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B51/2 A 0.2	123	NORMAL	14/03/2023	13:00:51	soil-VMW	Soil	0.00361	0.00018	0.00604	0.00016	0.00044	0.00008	0.00172	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 A 0.0	124	NORMAL	14/03/2023	13:05:13	soil-VMW	Soil	0.00243	0.00016	0.06922	0.00052	0.00066	0.00013	0.00942	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 B 0.0	125	NORMAL	14/03/2023	13:06:53	soil-VMW	Soil	0.00158	0.00014	0.01192	0.0002	0.0003	0.00008	0.00219	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 C 0.0	126	NORMAL	14/03/2023	13:07:53	soil-VMW	Soil	0.00251	0.00016	0.01103	0.00021	0.00035	0.00008	0.00212	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 D 0.0	127	NORMAL	14/03/2023	13:08:57	soil-VMW	Soil	0.00157	0.00013	0.00773	0.00015	0.00022	0.00006	0.00134	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 A 0.1	128	NORMAL	14/03/2023	13:11:03	soil-VMW	Soil	0.0024	0.00016	0.03363	0.00035	0.0007	0.0001	0.00473	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 A 0.1	129	NORMAL	14/03/2023	13:12:04	soil-VMW	Soil	0.00249	0.00016	0.02966	0.00032	0.00053	0.0001	0.00416	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 A 0.1	130	NORMAL	14/03/2023	13:12:57	soil-VMW	Soil	0.00257	0.00017	0.03331	0.00036	0.00046	0.00011	0.00588	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S5/1 A 0.2	131	NORMAL	14/03/2023	13:14:32	soil-VMW	Soil	0.00508	0.0002	0.00896	0.0002	0.00083	0.00009	0.00188	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	1	NORMAL	15/03/2023	7:43:21	soil-VMW	Soil	<LOD	0.00038	<LOD	0.00023	<LOD	0.00015	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
Std	2	NORMAL	15/03/2023	7:44:45	soil-VMW	Soil	0.01418	0.00033	0.03792	0.00045	0.00667	0.00056	0.13598	0.00086	1090A	In Situ	AC	Tokanui	800224	VMW
Std	3	NORMAL	15/03/2023	7:46:23	soil-VMW	Soil	0.3383	0.00218	0.42124	0.00248	0.15294	0.00152	0.53235	0.00283	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 A 0.0	4	NORMAL	15/03/2023	7:49:20	soil-VMW	Soil	0.00365	0.00022	0.0124	0.00027	0.00046	0.00013	0.00496	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 A 0.0	5	NORMAL	15/03/2023	7:50:12	soil-VMW	Soil	0.00331	0.00016	0.01627	0.00023	0.00063	0.00011	0.00595	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 A 0.0	6	NORMAL	15/03/2023	7:51:09	soil-VMW	Soil	0.00354	0.00018	0.01473	0.00025	<LOD	0.00034	0.00547	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 B 0.0	7	NORMAL	15/03/2023	7:52:15	soil-VMW	Soil	0.00331	0.00019	0.02056	0.0003	0.00041	0.00011	0.00436	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 C 0.0	8	NORMAL	15/03/2023	7:53:33	soil-VMW	Soil	0.00305	0.00018	0.01411	0.00024	0.00039	0.00011	0.0048	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 D 0.0	9	NORMAL	15/03/2023	7:54:56	soil-VMW	Soil	0.00313	0.00018	0.01338	0.00024	<LOD	0.00032	0.00437	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 O 0.0	10	NORMAL	15/03/2023	7:56:08	soil-VMW	Soil	0.00261	0.00021	0.01336	0.00028	0.00052	0.00012	0.00391	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B52/1 A 0.1	11	NORMAL	15/03/2023	7:57:47	soil-VMW	Soil	0.00435	0.00021	0.00688	0.00019	0.00043	0.00008	0.00125	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 A 0.0	12	NORMAL	15/03/2023	8:00:09	soil-VMW	Soil	0.0023	0.00017	0.38821	0.00174	0.00121	0.0003	0.05578	0.00041	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 B 0.0	13	NORMAL	15/03/2023	8:01:26	soil-VMW	Soil	0.0017	0.00014	0.01777	0.00023	<LOD	0.00028	0.00503	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 C 0.0	14	NORMAL	15/03/2023	8:02:43	soil-VMW	Soil	0.00169	0.00014	0.01411	0.00021	0.00036	0.00008	0.00257	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 D 0.0	15	NORMAL	15/03/2023	8:03:45	soil-VMW	Soil	0.00286	0.00016	0.01389	0.00021	0.00044	0.00008	0.00274	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 O 0.0	16	NORMAL	15/03/2023	8:04:54	soil-VMW	Soil	0.00205	0.00017	0.01058	0.00021	0.00039	0.00008	0.00177	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 A 0.1	17	NORMAL	15/03/2023	8:06:30	soil-VMW	Soil	0.00294	0.0002	0.07939	0.00065	<LOD	0.00052	0.01319	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 A 0.1	18	NORMAL	15/03/2023	8:07:24	soil-VMW	Soil	0.00294	0.00018	0.09111	0.00065	<LOD	0.00051	0.01547	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 A 0.1	19	NORMAL	15/03/2023	8:08:46	soil-VMW	Soil	0.0032	0.00022	0.06031	0.0006	0.00074	0.00021	0.01591	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B52/2 A 0.2	20	NORMAL	15/03/2023	8:10:20	soil-VMW	Soil	0.00361	0.00018	0.03116	0.00034	<LOD	0.00033	0.00589	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B53 paint	21	NORMAL	15/03/2023	8:19:44	soil-VMW	Soil	<LOD	0.00054	0.05394	0.00055	0.00042	0.00008	0.0006	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B53/1 A 0.0	22	NORMAL	15/03/2023	8:23:34	soil-VMW	Soil	0.00277	0.00018	0.00655	0.00018	0.00044	0.00009	0.00173	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B53/1 B 0.0	23	NORMAL	15/03/2023	8:24:59	soil-VMW	Soil	0.0027	0.00016	0.00615	0.00016	0.00053	0.00007	0.00148	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B53/1 C 0.0	24	NORMAL	15/03/2023	8:26:17	soil-VMW	Soil	0.00239	0.00016	0.00623	0.00016	0.00033	0.00007	0.00173	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B53/1 D 0.0	25	NORMAL	15/03/2023	8:28:06	soil-VMW	Soil	0.00246	0.00015	0.00767	0.00017	0.00055	0.00007	0.00146	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B53/1 O 0.0	26	NORMAL	15/03/2023	8:29:07	soil-VMW	Soil	0.00247	0.00016	0.00727	0.00017	0.00052	0.00007	0.00159	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW

B53/1 A 0.1	27	NORMAL	15/03/2023	8:30:42	soil-VMW	Soil	0.00363	0.00021	0.00569	0.00019	0.00076	0.0001	0.00183	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B53/1 A 0.1	28	NORMAL	15/03/2023	8:31:47	soil-VMW	Soil	0.00446	0.00021	0.00548	0.00017	0.00057	0.00009	0.00191	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B53/1 A 0.1	29	NORMAL	15/03/2023	8:33:12	soil-VMW	Soil	0.00291	0.00018	0.00656	0.00018	0.00057	0.00009	0.00187	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 A 0.0	30	NORMAL	15/03/2023	8:44:22	soil-VMW	Soil	0.00807	0.00023	0.02049	0.00028	<LOD	0.00073	0.0348	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 A 0.0	31	NORMAL	15/03/2023	8:45:15	soil-VMW	Soil	0.00421	0.00017	0.01847	0.00024	0.00094	0.00014	0.01131	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 A 0.0	32	NORMAL	15/03/2023	8:46:30	soil-VMW	Soil	0.00542	0.00021	0.01952	0.00029	0.00058	0.00015	0.01044	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 A 0.0	33	NORMAL	15/03/2023	8:47:24	soil-VMW	Soil	0.00499	0.00028	0.01635	0.00036	<LOD	0.00064	0.01115	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 A 0.0	34	NORMAL	15/03/2023	8:48:18	soil-VMW	Soil	0.00579	0.0002	0.01708	0.00026	0.00048	0.00015	0.01178	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 B 0.0	35	NORMAL	15/03/2023	8:49:32	soil-VMW	Soil	0.00138	0.00013	0.00927	0.00017	<LOD	0.00024	0.00319	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 C 0.0	36	NORMAL	15/03/2023	8:50:34	soil-VMW	Soil	0.00089	0.00012	0.01088	0.00018	<LOD	0.00023	0.0029	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 D 0.0	37	NORMAL	15/03/2023	8:51:56	soil-VMW	Soil	0.0005	0.00011	0.0065	0.00014	<LOD	0.00019	0.00202	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 O 0.0	38	NORMAL	15/03/2023	8:53:09	soil-VMW	Soil	0.00629	0.00174	0.01015	0.00088	<LOD	0.00087	0.00168	0.0003	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 O 0.0	39	NORMAL	15/03/2023	8:53:41	soil-VMW	Soil	0.00066	0.00011	0.00572	0.00013	0.00024	0.00006	0.00166	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 A 0.1	40	NORMAL	15/03/2023	8:56:30	soil-VMW	Soil	0.00384	0.00018	0.00741	0.00018	0.00077	0.0001	0.00333	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B55/1 A 0.2	41	NORMAL	15/03/2023	8:57:48	soil-VMW	Soil	0.00406	0.00018	0.00721	0.00017	0.0007	0.00009	0.003	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 A 0.0	42	NORMAL	15/03/2023	9:01:14	soil-VMW	Soil	0.00135	0.00012	0.03956	0.00033	<LOD	0.0006	0.03561	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 A 0.0	43	NORMAL	15/03/2023	9:02:32	soil-VMW	Soil	0.00162	0.00013	0.03103	0.0003	<LOD	0.00051	0.02308	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 A 0.0	44	NORMAL	15/03/2023	9:03:24	soil-VMW	Soil	0.00228	0.00014	0.03525	0.00032	0.00499	0.00028	0.05739	0.00037	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 B 0.0	45	NORMAL	15/03/2023	9:04:38	soil-VMW	Soil	0.00235	0.00015	0.02969	0.00031	0.00113	0.00021	0.02991	0.00027	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 C 0.0	46	NORMAL	15/03/2023	9:06:06	soil-VMW	Soil	0.00113	0.00011	0.01405	0.00019	<LOD	0.00027	0.00643	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 D 0.0	47	NORMAL	15/03/2023	9:07:44	soil-VMW	Soil	0.00257	0.00016	0.01232	0.00021	<LOD	0.00041	0.01074	0.00017	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 O 0.0	48	NORMAL	15/03/2023	9:09:19	soil-VMW	Soil	0.00462	0.00017	0.01016	0.00018	0.00035	0.00009	0.00379	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 A 0.1	49	NORMAL	15/03/2023	9:10:53	soil-VMW	Soil	0.00221	0.00015	0.01152	0.0002	<LOD	0.00045	0.0139	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
B55/2 A 0.2	50	NORMAL	15/03/2023	9:12:02	soil-VMW	Soil	0.00134	0.00015	0.00409	0.00014	0.00073	0.00009	0.00204	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 A 0.0	51	NORMAL	15/03/2023	9:28:00	soil-VMW	Soil	0.00331	0.00019	0.01254	0.00024	<LOD	0.00033	0.00442	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 B 0.0	52	NORMAL	15/03/2023	9:29:03	soil-VMW	Soil	0.00304	0.00019	0.0106	0.00023	<LOD	0.00028	0.00248	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 C 0.0	53	NORMAL	15/03/2023	9:30:30	soil-VMW	Soil	0.00283	0.00017	0.00951	0.00019	0.00043	0.00008	0.0018	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 D 0.0	54	NORMAL	15/03/2023	9:31:34	soil-VMW	Soil	0.00349	0.00019	0.0109	0.00022	0.00062	0.00009	0.0021	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 O 0.0	55	NORMAL	15/03/2023	9:33:29	soil-VMW	Soil	0.00312	0.00018	0.00883	0.0002	0.00056	0.00008	0.00152	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 A 0.1	56	NORMAL	15/03/2023	9:34:49	soil-VMW	Soil	0.00443	0.00019	0.01575	0.00024	0.00045	0.00011	0.0051	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 A 0.1	57	NORMAL	15/03/2023	9:36:02	soil-VMW	Soil	0.00385	0.00017	0.0147	0.00023	0.00046	0.0001	0.00486	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 A 0.1	58	NORMAL	15/03/2023	9:36:58	soil-VMW	Soil	0.00453	0.00019	0.01374	0.00023	0.00046	0.00011	0.005	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B56/1 A 0.2	59	NORMAL	15/03/2023	9:38:22	soil-VMW	Soil	0.00268	0.00017	0.02175	0.00029	0.00051	0.0001	0.00388	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 A 0.0	60	NORMAL	15/03/2023	9:41:11	soil-VMW	Soil	0.00225	0.0002	0.26395	0.0015	<LOD	0.00039	0.00585	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 A 0.0	61	NORMAL	15/03/2023	9:42:02	soil-VMW	Soil	0.00371	0.00019	0.30407	0.00147	0.00069	0.00013	0.00807	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 A 0.0	62	NORMAL	15/03/2023	9:43:04	soil-VMW	Soil	0.00231	0.00019	0.27744	0.00148	<LOD	0.00038	0.00641	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 B 0.0	63	NORMAL	15/03/2023	9:44:24	soil-VMW	Soil	0.00081	0.00014	0.01296	0.00022	<LOD	0.0002	0.0011	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 C 0.0	64	NORMAL	15/03/2023	9:45:24	soil-VMW	Soil	0.00218	0.00016	0.0151	0.00024	0.00046	0.00008	0.00154	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 D 0.0	65	NORMAL	15/03/2023	9:46:25	soil-VMW	Soil	0.00243	0.00016	0.01722	0.00025	0.00052	0.00008	0.00173	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 O 0.0	66	NORMAL	15/03/2023	9:47:20	soil-VMW	Soil	0.00239	0.00016	0.01641	0.00024	0.00067	0.00008	0.00173	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 A 0.1	67	NORMAL	15/03/2023	9:49:06	soil-VMW	Soil	0.0029	0.00018	0.02777	0.00035	0.00045	0.00011	0.00417	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B56/2 A 0.2	68	NORMAL	15/03/2023	9:50:12	soil-VMW	Soil	0.00407	0.00019	0.03126	0.00035	0.00079	0.0001	0.0039	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 A 0.0	69	NORMAL	15/03/2023	10:07:55	soil-VMW	Soil	0.00228	0.00023	0.07951	0.00077	<LOD	0.00217	0.18531	0.00121	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 A 0.0	70	NORMAL	15/03/2023	10:08:48	soil-VMW	Soil	0.00202	0.00016	0.0951	0.00064	<LOD	0.00167	0.20809	0.00098	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 A 0.0	71	NORMAL	15/03/2023	10:09:44	soil-VMW	Soil	0.00246	0.00019	0.10045	0.00073	<LOD	0.00183	0.19463	0.00103	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 B 0.0	72	NORMAL	15/03/2023	10:11:00	soil-VMW	Soil	0.00221	0.00015	0.02828	0.00031	0.00093	0.00017	0.01671	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 C 0.0	73	NORMAL	15/03/2023	10:12:07	soil-VMW	Soil	0.00223	0.00017	0.01019	0.00021	0.00054	0.00012	0.00575	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 D 0.0	74	NORMAL	15/03/2023	10:13:07	soil-VMW	Soil	0.00204	0.00016	0.00993	0.0002	0.00056	0.0001	0.00365	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 O 0.0	75	NORMAL	15/03/2023	10:14:16	soil-VMW	Soil	0.00247	0.00016	0.01005	0.0002	0.00059	0.0001	0.00374	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 A 0.1	76	NORMAL	15/03/2023	10:16:06	soil-VMW	Soil	0.0024	0.00016	0.04358	0.00041	<LOD	0.00106	0.0791	0.0005	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 A 0.2	77	NORMAL	15/03/2023	10:18:05	soil-VMW	Soil	0.00198	0.00017	0.02644	0.00033	<LOD	0.00076	0.03793	0.00034	1090A	In Situ	AC	Tokanui	800224	VMW
B59/1 A 0.2	78	NORMAL	15/03/2023	10:20:11	soil-VMW	Soil	0.00221	0.00021	0.02454	0.00038	0.00094	0.00021	0.0146	0.00025	1090A	In Situ	AC	Tokanui	800224	VMW
B59/2 A 0.0	79	NORMAL	15/03/2023	10:23:58	soil-VMW	Soil	0.00099	0.00014	0.01305	0.00022	0.0012	0.00017	0.0161	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B59/2 B 0.0	80	NORMAL	15/03/2023	10:25:20	soil-VMW	Soil	0.00116	0.00015	0.01015	0.0002	0.00059	0.0001	0.00431	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B59/2 C 0.0	81	NORMAL	15/03/2023	10:26:19	soil-VMW	Soil	0.00116	0.00017	0.00785	0.0002	0.00057	0.0001	0.00294	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B59/2 D 0.0	82	NORMAL	15/03/2023	10:27:37	soil-VMW	Soil	0.00176	0.00016	0.00875	0.0002	0.00053	0.0001	0.00319	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B59/2 O 0.0	83	NORMAL	15/03/2023	10:28:34	soil-VMW	Soil	0.00172	0.00016	0.00842	0.00019	0.00054	0.00009	0.0031	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B59/2 A 0.1	84	NORMAL	15/03/2023	10:29:58	soil-VMW	Soil	0.00122	0.00022	0.00852	0.00026	0.00134	0.00017	0.00691	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B60 paint	85	NORMAL	15/03/2023	10:36:58	soil-VMW	Soil	0.12215	0.00076	0.00318	0.00016	0.20216	0.00082	<LOD	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B62 paint	86	NORMAL	15/03/2023	10:40:31	soil-VMW	Soil	<LOD	0.00028	0.00897	0.00015	0.00033	0.00005	0.0004	0.00006	1090A	In Situ	AC	Tokanui	800224	VMW
B62 paint door	87	NORMAL	15/03/2023	10:41:35	soil-VMW	Soil	0.01047	0.00037	0.28656	0.00186	<LOD	0.00814	2.91933	0.01405	1090A	In Situ	AC	Tokanui	800224	VMW
B60/1 A 0.0	88	NORMAL	15/03/2023	10:45:15	soil-VMW	Soil	0.00194	0.00018	0.0149	0.00026	0.001	0.0001	0.00232	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B60/1 B 0.0	89	NORMAL	15/03/2023	10:47:15	soil-VMW	Soil	0.00132	0.00019	0.00877	0.00022	0.00097	0.00009	0.00125	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B60/1 C 0.0	90	NORMAL	15/03/2023	10:48:16	soil-VMW	Soil	0.0019	0.00019	0.00822	0.00021	0.00086	0.00009	0.00128	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B60/1 D 0.0	91	NORMAL	15/03/2023	10:49:29	soil-VMW	Soil	0.00184	0.00019	0.00845	0.00021	0.00079	0.00009	0.00133	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B60/1 A 0.1	92	NORMAL	15/03/2023	10:50:40	soil-VMW	Soil	0.00238	0.00018	0.01111	0.00023	0.00162	0.00013	0.00533	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 A 0.0	93	NORMAL	15/03/2023	11:10:20	soil-VMW	Soil	0.00251	0.00017	0.0092	0.0002	0.00047	0.00013	0.00758	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW

B65/1 B 0.0	94	NORMAL	15/03/2023	11:11:20	soil-VMW	Soil	0.00095	0.00013	0.00427	0.00013	0.00023	0.00006	0.00136	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 C 0.0	95	NORMAL	15/03/2023	11:12:39	soil-VMW	Soil	0.00203	0.00014	0.00777	0.00016	0.00035	0.00007	0.00173	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 D 0.0	96	NORMAL	15/03/2023	11:13:47	soil-VMW	Soil	0.00207	0.00018	0.00673	0.00019	0.00057	0.0001	0.00248	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 O 0.0	97	NORMAL	15/03/2023	11:14:44	soil-VMW	Soil	0.00143	0.00018	0.00599	0.00019	0.00032	0.00009	0.00196	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 A 0.1	98	NORMAL	15/03/2023	11:16:10	soil-VMW	Soil	0.00325	0.00016	0.00926	0.00018	0.00035	0.00011	0.00581	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 A 0.1	99	NORMAL	15/03/2023	11:17:17	soil-VMW	Soil	0.00189	0.00015	0.00596	0.00015	<LOD	0.00029	0.00524	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 A 0.1	100	NORMAL	15/03/2023	11:18:20	soil-VMW	Soil	0.00334	0.00017	0.00914	0.00018	0.00052	0.00011	0.00571	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B65/1 A 0.2	101	NORMAL	15/03/2023	11:19:22	soil-VMW	Soil	0.00366	0.00017	0.00935	0.00018	0.00051	0.0001	0.00425	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 A 0.0	102	NORMAL	15/03/2023	11:26:25	soil-VMW	Soil	0.00265	0.00013	0.00731	0.00014	<LOD	0.00018	0.0019	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 A 0.0	103	NORMAL	15/03/2023	11:27:24	soil-VMW	Soil	0.00359	0.00017	0.00918	0.00018	0.00037	0.00009	0.00336	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 A 0.0	104	NORMAL	15/03/2023	11:29:02	soil-VMW	Soil	0.00291	0.00016	0.01148	0.0002	0.00046	0.00008	0.00253	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 B 0.0	105	NORMAL	15/03/2023	11:30:12	soil-VMW	Soil	0.00171	0.00014	0.00615	0.00015	<LOD	0.00022	0.00215	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 C 0.0	106	NORMAL	15/03/2023	11:31:31	soil-VMW	Soil	0.0033	0.00018	0.00841	0.00019	0.00052	0.0001	0.00377	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 D 0.0	107	NORMAL	15/03/2023	11:32:45	soil-VMW	Soil	0.00275	0.00018	0.00815	0.00019	0.00036	0.0001	0.00316	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 A 0.1	108	NORMAL	15/03/2023	11:34:28	soil-VMW	Soil	0.00511	0.0002	0.01179	0.00022	0.00093	0.00011	0.00467	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B65/2 A 0.2	109	NORMAL	15/03/2023	11:35:36	soil-VMW	Soil	0.00556	0.0002	0.007	0.00017	0.00054	0.00008	0.00162	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	110	NORMAL	15/03/2023	11:37:35	soil-VMW	Soil	<LOD	0.0004	<LOD	0.00023	<LOD	0.00015	<LOD	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
Std	111	NORMAL	15/03/2023	11:38:44	soil-VMW	Soil	0.016	0.00035	0.04359	0.00049	0.00961	0.00059	0.1462	0.00091	1090A	In Situ	AC	Tokanui	800224	VMW
Std	112	NORMAL	15/03/2023	11:39:38	soil-VMW	Soil	0.32504	0.00209	0.41152	0.00239	0.14851	0.00147	0.51927	0.00273	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 A 0.0	113	NORMAL	15/03/2023	11:53:32	soil-VMW	Soil	0.00335	0.00018	0.00877	0.00019	<LOD	0.00035	0.00588	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 B 0.0	114	NORMAL	15/03/2023	11:54:38	soil-VMW	Soil	0.00138	0.00015	0.00509	0.00015	0.00026	0.00008	0.0017	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 C 0.0	115	NORMAL	15/03/2023	11:56:30	soil-VMW	Soil	0.00195	0.00014	0.00629	0.00014	0.00047	0.00007	0.00186	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 D 0.0	116	NORMAL	15/03/2023	11:57:40	soil-VMW	Soil	0.00216	0.00014	0.00896	0.00017	0.00034	0.00007	0.00186	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 A 0.1	117	NORMAL	15/03/2023	11:59:29	soil-VMW	Soil	0.00256	0.00016	0.00835	0.00018	<LOD	0.00032	0.00567	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 A 0.1	118	NORMAL	15/03/2023	12:00:22	soil-VMW	Soil	0.00278	0.00018	0.00894	0.0002	<LOD	0.00034	0.00555	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 A 0.1	119	NORMAL	15/03/2023	12:01:21	soil-VMW	Soil	0.00275	0.00016	0.00844	0.00018	0.00045	0.0001	0.00526	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 A 0.2	120	NORMAL	15/03/2023	12:03:00	soil-VMW	Soil	0.00496	0.00041	0.00715	0.00036	0.00137	0.00018	0.00163	0.0002	1090A	In Situ	AC	Tokanui	800224	VMW
B69/1 A 0.2	121	NORMAL	15/03/2023	12:03:55	soil-VMW	Soil	0.0017	0.00015	0.00638	0.00016	<LOD	0.00023	0.00228	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 A 0.0	122	NORMAL	15/03/2023	12:06:20	soil-VMW	Soil	0.00149	0.00015	0.01277	0.00022	0.00048	0.00008	0.00199	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 A 0.0	123	NORMAL	15/03/2023	12:07:19	soil-VMW	Soil	0.00189	0.00016	0.01443	0.00024	0.00065	0.00009	0.00278	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 A 0.0	124	NORMAL	15/03/2023	12:08:39	soil-VMW	Soil	0.0014	0.00016	0.01137	0.00022	0.00047	0.00008	0.00201	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 B 0.0	125	NORMAL	15/03/2023	12:09:45	soil-VMW	Soil	0.00222	0.0002	0.01122	0.00026	0.00052	0.00011	0.00281	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 C 0.0	126	NORMAL	15/03/2023	12:11:01	soil-VMW	Soil	0.00209	0.0003	0.00942	0.00035	<LOD	0.00046	0.0024	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 D 0.0	127	NORMAL	15/03/2023	12:12:00	soil-VMW	Soil	0.00201	0.00016	0.01116	0.00021	0.00054	0.00009	0.0024	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 O 0.0	128	NORMAL	15/03/2023	12:13:11	soil-VMW	Soil	0.00178	0.00014	0.00948	0.00018	0.0004	0.00008	0.00227	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 A 0.1	129	NORMAL	15/03/2023	12:14:15	soil-VMW	Soil	0.00179	0.00014	0.00984	0.00018	0.00049	0.00008	0.00242	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S4/1 A 0.2	130	NORMAL	15/03/2023	12:15:20	soil-VMW	Soil	0.00135	0.00015	0.00949	0.0002	0.00045	0.00009	0.00223	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B71/1 A 0.0	131	NORMAL	15/03/2023	12:28:48	soil-VMW	Soil	0.00141	0.00016	0.30413	0.00149	0.00025	0.00008	0.00199	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B71/1 B 0.0	132	NORMAL	15/03/2023	12:30:47	soil-VMW	Soil	0.00229	0.00015	0.03901	0.00035	0.00048	0.00008	0.00274	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B71/1 C 0.0	133	NORMAL	15/03/2023	12:32:15	soil-VMW	Soil	0.00238	0.00016	0.01998	0.00026	0.00071	0.00009	0.00271	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B71/1 D 0.0	134	NORMAL	15/03/2023	12:33:15	soil-VMW	Soil	0.00191	0.00015	0.01966	0.00026	0.00072	0.00008	0.00248	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B71/1 O 0.0	135	NORMAL	15/03/2023	12:34:14	soil-VMW	Soil	0.00197	0.00016	0.0171	0.00026	0.0005	0.00009	0.00237	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B71/1 A 0.1	136	NORMAL	15/03/2023	12:35:28	soil-VMW	Soil	0.00209	0.00016	0.01736	0.00026	0.00047	0.00009	0.00247	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B71/1 A 0.2	137	NORMAL	15/03/2023	12:36:45	soil-VMW	Soil	0.00198	0.00016	0.02646	0.00032	0.00043	0.00009	0.00271	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 A 0.0	138	NORMAL	15/03/2023	12:48:41	soil-VMW	Soil	0.00234	0.00017	0.12393	0.00078	0.00146	0.00024	0.03164	0.0003	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 A 0.0	139	NORMAL	15/03/2023	12:49:33	soil-VMW	Soil	0.00264	0.00018	0.12695	0.00081	0.00143	0.00025	0.03446	0.00032	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 A 0.0	140	NORMAL	15/03/2023	12:50:37	soil-VMW	Soil	0.0019	0.00021	0.11135	0.00092	<LOD	0.00091	0.03304	0.00039	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 B 0.0	141	NORMAL	15/03/2023	12:52:39	soil-VMW	Soil	0.00245	0.00017	0.04566	0.00044	0.00068	0.00017	0.01538	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 C 0.0	142	NORMAL	15/03/2023	12:53:50	soil-VMW	Soil	0.00212	0.00019	0.01742	0.0003	0.00062	0.00014	0.00611	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 D 0.0	143	NORMAL	15/03/2023	12:54:55	soil-VMW	Soil	0.0026	0.00021	0.01117	0.00026	0.00065	0.00013	0.00474	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 O 0.0	144	NORMAL	15/03/2023	12:56:10	soil-VMW	Soil	0.00288	0.00018	0.01615	0.00026	0.0006	0.00013	0.00696	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B35/1 A 0.1	145	NORMAL	15/03/2023	12:58:28	soil-VMW	Soil	0.00355	0.00022	0.09228	0.00074	0.0028	0.00027	0.02833	0.00033	1090A	In Situ	AC	Tokanui	800224	VMW
B35/2 A 0.0	146	NORMAL	15/03/2023	13:02:13	soil-VMW	Soil	0.00368	0.00025	0.03567	0.00049	<LOD	0.00108	0.04491	0.00048	1090A	In Situ	AC	Tokanui	800224	VMW
B35/2 B 0.0	147	NORMAL	15/03/2023	13:03:59	soil-VMW	Soil	0.00694	0.00037	0.00917	0.00031	0.00052	0.00013	0.00123	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
B35/2 C 0.0	148	NORMAL	15/03/2023	13:05:13	soil-VMW	Soil	0.00343	0.0002	0.03057	0.00038	0.00145	0.00017	0.01197	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
B35/2 D 0.0	149	NORMAL	15/03/2023	13:06:14	soil-VMW	Soil	0.00283	0.00015	0.02064	0.00025	0.00035	0.00011	0.00835	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
B35/2 O 0.0	150	NORMAL	15/03/2023	13:07:22	soil-VMW	Soil	0.00271	0.00016	0.02075	0.00026	0.00052	0.00012	0.00763	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 A 0.0	151	NORMAL	15/03/2023	13:23:19	soil-VMW	Soil	0.0045	0.00018	0.01175	0.00021	0.00083	0.0001	0.00472	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 B 0.0	152	NORMAL	15/03/2023	13:24:57	soil-VMW	Soil	0.00265	0.00018	0.00818	0.0002	0.00029	0.00009	0.00279	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 C 0.0	153	NORMAL	15/03/2023	13:26:03	soil-VMW	Soil	0.00216	0.00018	0.00821	0.0002	0.00035	0.00009	0.00192	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 D 0.0	154	NORMAL	15/03/2023	13:27:06	soil-VMW	Soil	0.00237	0.00017	0.00916	0.0002	0.00029	0.00009	0.00245	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 O 0.0	155	NORMAL	15/03/2023	13:28:20	soil-VMW	Soil	0.0026	0.00017	0.00912	0.0002	0.00039	0.00009	0.00226	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 A 0.1	156	NORMAL	15/03/2023	13:29:50	soil-VMW	Soil	0.00335	0.0002	0.00824	0.0002	0.0005	0.0001	0.00287	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 A 0.1	157	NORMAL	15/03/2023	13:30:49	soil-VMW	Soil	0.00458	0.0002	0.01037	0.00021	0.00068	0.0001	0.00346	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 A 0.1	158	NORMAL	15/03/2023	13:31:48	soil-VMW	Soil	0.00447	0.00018	0.00972	0.00019	0.00095	0.00009	0.00241	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
S8/1 A 0.2	159	NORMAL	15/03/2023	13:32:50	soil-VMW	Soil	0.00283	0.00017	0.00584	0.00016	0.00031	0.00008	0.00199	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 A 0.0	160	NORMAL	15/03/2023	13:42:40	soil-VMW	Soil	0.00374	0.00018	0.01113	0.00021	0.00051	0.0001	0.00399	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW

Ward H/1 A 0.0	161	NORMAL	15/03/2023	13:44:20	soil-VMW	Soil	0.00298	0.00021	0.01045	0.00024	0.00043	0.00011	0.00343	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 A 0.0	162	NORMAL	15/03/2023	13:45:21	soil-VMW	Soil	0.00603	0.00047	0.01214	0.00049	0.00092	0.00022	0.00361	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 B 0.0	163	NORMAL	15/03/2023	13:46:05	soil-VMW	Soil	0.00306	0.00019	0.01023	0.00022	0.00043	0.00011	0.00346	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 C 0.0	164	NORMAL	15/03/2023	13:49:16	soil-VMW	Soil	0.00235	0.00017	0.00875	0.0002	0.0004	0.0001	0.00332	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 D 0.0	165	NORMAL	15/03/2023	13:50:54	soil-VMW	Soil	0.00228	0.00016	0.00665	0.00017	0.00042	0.00008	0.00213	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 O 0.0	166	NORMAL	15/03/2023	13:51:58	soil-VMW	Soil	0.0023	0.00015	0.00701	0.00016	0.00046	0.00008	0.00226	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 A 0.1	167	NORMAL	15/03/2023	13:55:45	soil-VMW	Soil	0.00592	0.00022	0.00853	0.0002	<LOD	0.00029	0.00319	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/1 A 0.2	168	NORMAL	15/03/2023	13:57:02	soil-VMW	Soil	0.00378	0.00018	0.00852	0.00018	<LOD	0.00029	0.00399	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/2 A 0.0	169	NORMAL	15/03/2023	14:05:41	soil-VMW	Soil	0.00206	0.0002	0.00831	0.00023	0.0004	0.00012	0.00339	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/2 B 0.0	170	NORMAL	15/03/2023	14:07:58	soil-VMW	Soil	0.00284	0.00021	0.01089	0.00025	0.00061	0.00012	0.00382	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/2 C 0.0	171	NORMAL	15/03/2023	14:09:47	soil-VMW	Soil	0.00238	0.00016	0.00799	0.00018	0.00037	0.00008	0.0026	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/2 D 0.0	172	NORMAL	15/03/2023	14:11:45	soil-VMW	Soil	0.00385	0.00021	0.01008	0.00023	0.0005	0.00011	0.00333	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/2 O 0.0	173	NORMAL	15/03/2023	14:13:04	soil-VMW	Soil	0.00318	0.00019	0.00987	0.00021	0.0004	0.0001	0.00359	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/2 A 0.1	174	NORMAL	15/03/2023	14:14:37	soil-VMW	Soil	0.00328	0.00023	0.00737	0.00022	0.00041	0.00012	0.00351	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
Ward H/2 A 0.2	175	NORMAL	15/03/2023	14:16:17	soil-VMW	Soil	0.00198	0.00018	0.0054	0.00017	0.00052	0.00009	0.0021	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 A 0.0	176	NORMAL	15/03/2023	14:26:16	soil-VMW	Soil	0.00135	0.00014	0.00732	0.00017	0.00026	0.00008	0.00258	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 A 0.0	177	NORMAL	15/03/2023	14:27:19	soil-VMW	Soil	0.00253	0.00018	0.01225	0.00023	0.00074	0.00011	0.00418	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 A 0.0	178	NORMAL	15/03/2023	14:28:14	soil-VMW	Soil	0.00226	0.00017	0.01089	0.00021	0.00055	0.00011	0.00485	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 A 0.0	179	NORMAL	15/03/2023	14:29:33	soil-VMW	Soil	0.0021	0.00018	0.01037	0.00022	0.00053	0.00011	0.00421	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 B 0.0	180	NORMAL	15/03/2023	14:30:42	soil-VMW	Soil	0.00276	0.00017	0.01244	0.00022	0.00084	0.0001	0.0035	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 C 0.0	181	NORMAL	15/03/2023	14:31:39	soil-VMW	Soil	0.00086	0.00014	0.00705	0.00017	0.00023	0.00007	0.0012	0.00008	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 D 0.0	182	NORMAL	15/03/2023	14:32:57	soil-VMW	Soil	0.00154	0.00016	0.00668	0.00018	0.00063	0.00009	0.00254	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 O 0.0	183	NORMAL	15/03/2023	14:34:33	soil-VMW	Soil	0.00261	0.00019	0.01115	0.00023	0.00105	0.00012	0.00499	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/1 A 0.1	184	NORMAL	15/03/2023	14:36:19	soil-VMW	Soil	0.00212	0.00025	0.0089	0.00027	0.00049	0.00013	0.003	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 A 0.0	185	NORMAL	15/03/2023	14:39:41	soil-VMW	Soil	0.00353	0.00018	0.00985	0.0002	0.00056	0.0001	0.00432	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 B 0.0	186	NORMAL	15/03/2023	14:41:53	soil-VMW	Soil	0.00184	0.00019	0.00736	0.0002	0.00045	0.00011	0.00368	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 C 0.0	187	NORMAL	15/03/2023	14:43:29	soil-VMW	Soil	0.00216	0.00016	0.01132	0.00021	0.00066	0.0001	0.00366	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 D 0.0	188	NORMAL	15/03/2023	14:44:38	soil-VMW	Soil	0.0023	0.00016	0.00935	0.00019	0.0008	0.0001	0.00427	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 O 0.0	189	NORMAL	15/03/2023	14:45:37	soil-VMW	Soil	0.00228	0.00016	0.0075	0.00017	0.00053	0.0001	0.00363	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 A 0.1	190	NORMAL	15/03/2023	14:47:44	soil-VMW	Soil	0.00391	0.00018	0.00966	0.0002	0.00092	0.00011	0.00445	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 A 0.1	191	NORMAL	15/03/2023	14:48:56	soil-VMW	Soil	0.00423	0.00019	0.00968	0.0002	0.00065	0.00011	0.00468	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Ward F/2 A 0.1	192	NORMAL	15/03/2023	14:50:09	soil-VMW	Soil	0.00473	0.0002	0.00953	0.00021	0.00073	0.00011	0.00435	0.00013	1090A	In Situ	AC	Tokanui	800224	VMW
Blank	193	NORMAL	15/03/2023	14:56:12	soil-VMW	Soil	<LOD	0.00038	<LOD	0.00023	<LOD	0.00015	<LOD	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
Std	194	NORMAL	15/03/2023	14:57:40	soil-VMW	Soil	0.01427	0.00033	0.03997	0.00047	0.00908	0.00058	0.13986	0.00088	1090A	In Situ	AC	Tokanui	800224	VMW
Std	195	NORMAL	15/03/2023	14:59:01	soil-VMW	Soil	0.3281	0.00211	0.41746	0.00243	0.14988	0.00149	0.52778	0.00278	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 A 0.0	196	NORMAL	15/03/2023	15:02:42	soil-VMW	Soil	0.00194	0.00016	0.18771	0.00103	0.0018	0.00021	0.02373	0.00026	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 A 0.0	197	NORMAL	15/03/2023	15:03:49	soil-VMW	Soil	0.00221	0.00017	0.08789	0.00065	<LOD	0.00072	0.03104	0.00031	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 A 0.0	198	NORMAL	15/03/2023	15:04:59	soil-VMW	Soil	0.00156	0.00016	0.05652	0.00048	<LOD	0.00052	0.01633	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 A 0.0	199	NORMAL	15/03/2023	15:06:26	soil-VMW	Soil	0.00217	0.00017	0.15525	0.00092	0.00082	0.00019	0.01887	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 B 0.0	200	NORMAL	15/03/2023	15:07:26	soil-VMW	Soil	0.00122	0.00014	0.01497	0.00023	<LOD	0.00029	0.00478	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 C 0.0	201	NORMAL	15/03/2023	15:08:43	soil-VMW	Soil	0.00209	0.00016	0.01433	0.00023	<LOD	0.00038	0.00806	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 D 0.0	202	NORMAL	15/03/2023	15:10:01	soil-VMW	Soil	0.00145	0.00015	0.00877	0.00018	<LOD	0.00026	0.00288	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 O 0.0	203	NORMAL	15/03/2023	15:12:02	soil-VMW	Soil	0.00157	0.00015	0.00843	0.00018	0.00035	0.00009	0.00271	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 A 0.1	204	NORMAL	15/03/2023	15:13:23	soil-VMW	Soil	0.00313	0.00017	0.06128	0.00048	0.00108	0.00019	0.02084	0.00023	1090A	In Situ	AC	Tokanui	800224	VMW
B75/1 A 0.2	205	NORMAL	15/03/2023	15:14:41	soil-VMW	Soil	0.00244	0.00017	0.01173	0.00023	0.00053	0.00009	0.00257	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/1 A 0.0	206	NORMAL	15/03/2023	15:27:08	soil-VMW	Soil	0.00269	0.00021	0.01687	0.00031	0.0008	0.00012	0.00303	0.00014	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/1 B 0.0	207	NORMAL	15/03/2023	15:28:19	soil-VMW	Soil	0.00232	0.00016	0.01508	0.00023	0.00054	0.00009	0.00306	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/1 C 0.0	208	NORMAL	15/03/2023	15:29:29	soil-VMW	Soil	0.00291	0.00016	0.01934	0.00025	0.00051	0.00009	0.00372	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/1 D 0.0	209	NORMAL	15/03/2023	15:30:27	soil-VMW	Soil	0.00238	0.00016	0.01789	0.00026	0.00052	0.00012	0.00739	0.00015	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/1 O 0.0	210	NORMAL	15/03/2023	15:32:19	soil-VMW	Soil	0.00286	0.00016	0.01747	0.00025	0.00073	0.00009	0.00358	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/1 A 0.1	211	NORMAL	15/03/2023	15:33:38	soil-VMW	Soil	0.00295	0.00018	0.01815	0.00027	0.00069	0.0001	0.00378	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 A 0.0	212	NORMAL	15/03/2023	15:35:24	soil-VMW	Soil	0.00258	0.00018	0.0151	0.00026	0.00076	0.0001	0.00276	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 A 0.0	213	NORMAL	15/03/2023	15:36:29	soil-VMW	Soil	0.00259	0.00019	0.0161	0.00028	0.00044	0.0001	0.00297	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 A 0.0	214	NORMAL	15/03/2023	15:37:36	soil-VMW	Soil	0.00292	0.00018	0.02109	0.0003	0.00065	0.0001	0.0033	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 B 0.0	215	NORMAL	15/03/2023	15:39:02	soil-VMW	Soil	0.00281	0.00017	0.02054	0.00028	0.0006	0.00009	0.00296	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 C 0.0	216	NORMAL	15/03/2023	15:40:03	soil-VMW	Soil	0.00252	0.00016	0.01648	0.00025	0.00065	0.00009	0.0029	0.00011	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 D 0.0	217	NORMAL	15/03/2023	15:41:01	soil-VMW	Soil	0.00159	0.00017	0.01161	0.00023	0.00035	0.0001	0.00286	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 O 0.0	218	NORMAL	15/03/2023	15:41:58	soil-VMW	Soil	0.00167	0.00017	0.01165	0.00023	0.00033	0.0001	0.00288	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Nurses Home/2 A 0.1	219	NORMAL	15/03/2023	15:43:12	soil-VMW	Soil	0.00282	0.00018	0.01424	0.00024	0.00066	0.0001	0.00313	0.00012	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 A 0.0	220	NORMAL	15/03/2023	15:51:48	soil-VMW	Soil	0.00198	0.00017	0.01406	0.00024	0.00062	0.00015	0.01008	0.00018	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 B 0.0	221	NORMAL	15/03/2023	15:53:13	soil-VMW	Soil	0.00175	0.00016	0.01581	0.00026	<LOD	0.0004	0.00804	0.00016	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 C 0.0	222	NORMAL	15/03/2023	15:54:30	soil-VMW	Soil	0.00236	0.00019	0.01696	0.00029	<LOD	0.00051	0.01185	0.00021	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 D 0.0	223	NORMAL	15/03/2023	15:56:14	soil-VMW	Soil	0.00239	0.00018	0.01229	0.00024	<LOD	0.00052	0.01359	0.00022	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 O 0.0	224	NORMAL	15/03/2023	15:57:43	soil-VMW	Soil	0.0019	0.00016	0.01615	0.00025	<LOD	0.00045	0.01149	0.00019	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 A 0.1	225	NORMAL	15/03/2023	15:59:18	soil-VMW	Soil	0.00099	0.00014	0.0048	0.00014	0.00064	0.00008	0.00145	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 A 0.1	226	NORMAL	15/03/2023	16:00:19	soil-VMW	Soil	0.00108	0.00014	0.00496	0.00015	0.00063	0.00008	0.00136	0.00009	1090A	In Situ	AC	Tokanui	800224	VMW
Pavilion/1 A 0.1	227	NORMAL	15/03/2023	16:01:17	soil-VMW	Soil	0.00109	0.00015	0.0044	0.00015	0.00053	0.00008	0.0015	0.0001	1090A	In Situ	AC	Tokanui	800224	VMW

Sample ID	Reading #	Test Type	Date	Time	Method ID	Method Name	Concentrat	Cu Error1s	Concentrat	Zn Error1s	Concentrat	As Error1s	Concentrat	Pb Error1s	Project No.	Sample Type	Operator	Notes	Serial No.	Model
B2/3 A 0.0	17	NORMAL	28/08/2023	23:01:11	soil-VMW	Soil	221	8	4425	38	0	20	1700	17	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 A 0.0	19	NORMAL	28/08/2023	23:07:01	soil-VMW	Soil	226	9	4217	38	0	20	1602	17	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 A 0.0	20	NORMAL	28/08/2023	23:08:24	soil-VMW	Soil	185	8	4190	39	0	22	1852	19	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 B 0.0	21	NORMAL	28/08/2023	23:11:41	soil-VMW	Soil	13	4	125	5	0	7	163	4	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 A 0.1	22	NORMAL	28/08/2023	23:16:44	soil-VMW	Soil	42	5	842	12	0	10	499	7	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 A 0.2	23	NORMAL	28/08/2023	23:20:52	soil-VMW	Soil	34	5	634	12	0	10	310	7	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 A 0.3	24	NORMAL	28/08/2023	23:24:30	soil-VMW	Soil	29	4	535	10	15	5	230	5	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 A 0.4	25	NORMAL	28/08/2023	23:25:51	soil-VMW	Soil	36	5	241	8	17	3	74	4	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 C 0.0	26	NORMAL	28/08/2023	23:29:14	soil-VMW	Soil	15	4	96	4	0	5	58	3	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 D 0.0	27	NORMAL	28/08/2023	23:30:59	soil-VMW	Soil	0	6	81	4	0	4	59	3	1090A	In Situ	AC	Tokanui	804954	VMW
B2/3 E 0.0	28	NORMAL	28/08/2023	23:32:41	soil-VMW	Soil	0	7	91	5	0	5	53	3	1090A	In Situ	AC	Tokanui	804954	VMW
B11 (front)	29	NORMAL	28/08/2023	23:54:38	soil-VMW	Soil	19	5	329	10	0	12	342	8	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.0	1	NORMAL	28/08/2023	0:00:23	soil-VMW	Soil	35	6	281	10	0	16	559	11	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.0	2	NORMAL	28/08/2023	0:02:44	soil-VMW	Soil	37	6	330	9	41	11	941	13	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.0	3	NORMAL	28/08/2023	0:03:44	soil-VMW	Soil	39	5	307	8	0	15	697	10	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.0	4	NORMAL	28/08/2023	0:05:27	soil-VMW	Soil	39	5	308	8	0	17	902	12	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.0	5	NORMAL	28/08/2023	0:06:06	soil-VMW	Soil	42	5	297	8	0	17	900	12	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.0	6	NORMAL	28/08/2023	0:07:46	soil-VMW	Soil	31	5	302	8	0	17	903	12	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.1	7	NORMAL	28/08/2023	0:14:15	soil-VMW	Soil	49	6	258	8	0	12	470	8	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.1	8	NORMAL	28/08/2023	0:16:05	soil-VMW	Soil	42	4	249	6	0	10	458	7	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.1	9	NORMAL	28/08/2023	0:16:49	soil-VMW	Soil	52	6	268	8	0	13	542	9	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.3	10	NORMAL	28/08/2023	0:23:23	soil-VMW	Soil	29	4	105	5	0	5	79	3	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 A 0.2	11	NORMAL	28/08/2023	0:24:20	soil-VMW	Soil	59	5	175	6	15	4	164	5	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 B 0.0	12	NORMAL	28/08/2023	0:25:37	soil-VMW	Soil	18	5	187	7	0	9	230	6	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 C 0.0	13	NORMAL	28/08/2023	0:26:39	soil-VMW	Soil	23	4	251	7	0	7	160	5	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 D 0.0	14	NORMAL	28/08/2023	0:27:57	soil-VMW	Soil	0	8	200	8	0	7	110	5	1090A	In Situ	AC	Tokanui	804954	VMW
B11/3 E 0.0	15	NORMAL	28/08/2023	0:28:56	soil-VMW	Soil	0	6	56	3	0	4	57	3	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.0	16	NORMAL	28/08/2023	0:40:07	soil-VMW	Soil	0	8	1085	18	0	29	2528	27	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.0	17	NORMAL	28/08/2023	0:41:16	soil-VMW	Soil	20	5	1329	20	0	30	3045	29	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.0	19	NORMAL	28/08/2023	0:45:14	soil-VMW	Soil	32	5	673	13	0	24	1949	21	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.1	20	NORMAL	28/08/2023	0:46:18	soil-VMW	Soil	24	5	500	11	37	10	843	12	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.2	21	NORMAL	28/08/2023	0:49:13	soil-VMW	Soil	27	5	358	10	0	14	610	11	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.2	22	NORMAL	28/08/2023	0:55:15	soil-VMW	Soil	28	8	334	13	42	11	514	13	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.2	23	NORMAL	28/08/2023	0:58:18	soil-VMW	Soil	32	8	352	13	0	18	596	14	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 A 0.3	24	NORMAL	28/08/2023	0:59:31	soil-VMW	Soil	33	6	175	7	0	7	116	5	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 B 0.0	25	NORMAL	28/08/2023	1:04:08	soil-VMW	Soil	41	5	123	5	11	3	69	3	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 C 0.0	26	NORMAL	28/08/2023	1:05:21	soil-VMW	Soil	0	12	121	8	0	7	45	5	1090A	In Situ	AC	Tokanui	804954	VMW
B59/3 D 0.0	27	NORMAL	28/08/2023	1:07:13	soil-VMW	Soil	12	4	179	6	0	5	58	3	1090A	In Situ	AC	Tokanui	804954	VMW

Appendix H

Quality assurance/quality control documentation

ENVCO
www.envcoglobal.com
Environmental, Industrial & Scientific Equipment

RETURN ADDRESS

Please ship to:

ENVCO
438B Rosebank Road
Avondale
Auckland 1026

CERTIFICATE OF CALIBRATION AND COMPLIANCE

Customer:	David Jackson - GHD
Instrument:	MiniRae PID 3000
Serial No:	592-915554
Date Checked:	Thursday, June 15, 2023
Calibrated by:	Mike Sheridan

Envco certifies that the above instrument has been calibrated in accordance with the manufacturers' instructions. The instrument has been tested and assessed to ensure compliance with the approval documents and the relevant standards to which it is approved.

Parameter	Standard	Meter
Zero Calibration	0.0ppm	0ppm
Span Calibration	100.0ppm	100ppm
Low Alarm	-	50.0ppm
High Alarm	-	100.0ppm

Calibration Gas	*Zero Air*	Part# 92-9040-0-2774
	Isobutylene	Part# 003105 (ex G13039)

Battery: Good

Please check that all items are received and all returned. Please clean equipment before returning. A charge may apply to any unclean items. Any damaged or lost items are the liability of the renter.

Sent		Returned
☒	Handheld	☐
☒	Inlet probe	☐
☒	Protective yellow boot	☐
☒	Charger	☐
☒	Charger cradle	☐
☒	ENVCO Quickstart Guide	☐
☒	Envco storage/troubleshooting guide	☐
☒	Filter	☐
☒	Spare filter (replacement if moisture or dirt enters filter $20 + GST)	☐

COMMENTS:

Please allow the instrument to warm up for **15 mins** before operating, and only calibrate with high-grade fresh air from a gas cylinder.

Please give the PID a quick wipe-down after the hire/before returning, especially if dirtied. A cleaning fee upwards of $65 + gst may apply if returned in unsuitable conditions.

The Environmental Collective Ltd
438B Rosebank Road, Avondale, Auckland 1026, New Zealand
www.envcoglobal.com | info@envcoglobal.com | Phone NZ 0800 623 336 or +64 (09) 307 3285 | Fax +64 (09) 307 3287

VAN WALT
Monitoring your needs

OUTWARDS CHECKLIST

PID Checklist and Calibration

PID Number: PID 3
Serial Number: L-107606
Rental Customer and Company: David Jackson GHD

	Reading	Target	Acceptable	Pass	Lot no / expiry date
100ppm Isobutylene gas	99.0	100	± 10% *		A00829
Fresh Air	0.8	0.0	± 10% *		

This PID was calibrated to manufacturers standards and was within acceptable range on the day of calibration. The Phocheck Tiger can keep calibration for up to 30 days. * On bump test after calibration

Maintenance Checks

- [x] PID Turns on/off
- [x] PAT test date on charger
- [x] Pump Stall Test
- [x] Configuration & Alarms checked

Comments

Checklist

- [x] Phocheck Tiger PID
- [x] 100ppm Isobutylene cylinder (log expiry date)
- [x] Gas Regulator
- [x] Calibration adaptor
- [x] Charcoal Filter Trap Zeroing Kit
- [x] Charging Adaptor
- [x] ~~Manual~~ and Quick Start Guide
- [x] Use of PID Information sheet
- [x] Hard Case
- [x] Moisture Filters x 5
- [x] Tamper sticker intact
- [x] Cal gas

Comments

Signed: [signature]

Date: 26/6/23

Name: Mitch

www.envcoglobal.com

CERTIFICATE OF CALIBRATION AND COMPLIANCE

Customer:	David – GHD
Instrument:	AMS Sludge and Sediment Sampler
Date Checked:	Wednesday, June 21, 2023
Calibrated by:	Mohak Dave (Rental Manager)

Envco certifies that the above instrument has been calibrated and/or assessed in accordance with the manufacturers' specifications.

Test	Pass
Extension rod thread check	☒
Check extension rods for bends	☒
Accessories check	☒

Please check that all items are received and all returned. Please clean and dry equipment before returning. A charge may apply to any unclean items. Any damaged or lost items are the liability of the renter.

Sent		Returned
☒	AMS Sludge Cylinder Body	☐
☒	AMS Sludge Valved Core Tip	☐
☒	Sediment Corer Cylinder (screw-on top)	☐
☒	Sludge Screw-on end-piece	☐
☒	3x Threaded Extensions (0.9m each)	☐
☒	10" Plastic Liners **(14x – only return if unused and clean!)**	☐
☒	Liner Caps **(28x – only return if unused and clean!)**	☐
☒	Carry Bag + Cardboard Box for Shipping	☐

Comments:

PLEASE RETURN EVERYTHING CLEANED, DECONTAMINATED AND DRIED AS BEST AS POSSIBLE. A CLEANING FEE MAY APPLY IF RETURNED IN UNSUITABLE CONDITIONS TO ACCOUNT OF TIME AND LABOUR REQUIRED BY US TO CLEAN UP EQUIPMENT!

Location Code	Date	Field ID	Matrix Type	Sample Type	Lab Report Number	Arsenic	Beryllium	Boron	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C10-C14 Fraction	C15-C36	C7-C36	C7-C9
						Metals										TRH - NEPM 1999	TPH		
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						0.125	0.013	1.25	0.005	0.125	0.075	0.25	0.025	0.05	0.05				
B35_TP04	07 Jun 2023	B35 TP 04 0.10	Soil	Normal	3299078	5	0.8	<20	<0.10	7	13	30	<0.10	5	66	-	-	-	-
	08 Jun 2023	DUP A1	Soil	Field_D	3299078	4	0.5	<20	<0.10	9	13	20	<0.10	4	32	-	-	-	-
RPD						22	**46**	0	0	25	0	**40**	0	22	**69**	-	-	-	-
BWL_TP04	08 Jun 2023	BWL TP 04 0.10	Soil	Normal	3299078	5	1.0	<20	0.33	9	36	82	0.18	5	103	-	-	-	-
		DUP B1	Soil	Field_D	3299078	5	1.0	<20	0.31	9	28	111	0.17	6	102	-	-	-	-
RPD						0	0	0	6	0	25	30	6	18	1	-	-	-	-
DS01_TP03	12 Jun 2023	DS01 TP03 0.10	Soil	Normal	3299078	7	1.1	<20	0.13	9	25	34	<0.10	4	49	-	-	-	-
		DUP C1	Soil	Field_D	3299078	8	0.9	<20	0.13	10	26	34	<0.10	5	54	-	-	-	-
RPD						13	20	0	0	11	4	0	0	22	10	-	-	-	-
B16_TP01	12 Jun 2023	B16 TP01 0.1	Soil	Normal	3299078	-	-	-	-	-	-	-	-	-	-	<20	<40	<80	<20
		Dup E5	Soil	Field_D	3299078	3	0.5	<20	<0.10	7	9	16.3	<0.10	4	80	<20	<40	<80	<20
RPD						-	-	-	-	-	-	-	-	-	-	0	0	0	0
	12 Jun 2023	B59 TP03 0.1	Soil	Normal	3299078	4	0.5	<20	0.12	30	13	13.1	<0.10	15	137	-	-	-	-
		Dup E4	Soil	Field_D	3299078	4	0.5	<20	<0.10	23	14	12.6	<0.10	13	220	-	-	-	-
RPD						0	0	0	18	26	7	4	0	14	**46**	-	-	-	-
	12 Jun 2023	B74 HA02 0.1	Soil	Normal	3299078	4	0.8	<20	<0.10	12	22	23	<0.10	9	73	-	-	-	-
		Dup E3	Soil	Field_D	3299078	6	0.6	<20	<0.10	10	22	21	<0.10	6	49	-	-	-	-
RPD						**40**	29	0	0	18	0	9	0	**40**	**39**	-	-	-	-
	12 Jun 2023	HSP SED 01 0.1	Soil	Normal	3299078	5	1.3	<20	0.32	11	47	143	<0.10	9	185	-	-	-	-
	06 Jun 2023	Trip B	Soil	Interlab_D	23-27152	4.5	1.2	16	0.30	13.9	48.7	198	0.11	10.6	189	-	-	-	-
RPD						11	8	0	6	23	4	**32**	10	16	2	-	-	-	-
	12 Jun 2023	HSP SED 01 0.1	Soil	Normal	3299078	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	06 Jun 2023	Trip B	Soil	Interlab_D	23-27152	4.5	1.2	16	0.30	13.9	48.7	198	0.11	10.6	189	-	-	-	-
RPD						-	-	-	-	-	-	-	-	-	-	-	-	-	-
WWTP_TP02	13 Jun 2023	WWTP TP02 0.10	Soil	Normal	3299078	3	0.8	<20	0.13	8	15	19.8	0.11	5	57	-	-	-	-
	12 Jun 2023	Dup D1 [A]	Soil	Field_D	3299078	10	0.9	<20	<0.10	9	13	19.3	<0.10	4	48	-	-	-	-
RPD						**108**	12	0	26	12	14	3	10	22	17	-	-	-	-
DS02_TP02	19 Jun 2023	DS02 TP02 0.1	Soil	Normal	3299078	7	1.1	<20	0.21	14	45	25	0.19	8	72	-	-	-	-
	12 Jun 2023	Dup E1	Soil	Field_D	3299078	6	1.1	<20	0.20	16	46	23	0.19	8	70	-	-	-	-
RPD						15	0	0	5	13	2	8	0	0	3	-	-	-	-
DS03_TP04	21 Jun 2023	DS03 TP04 0.5	Soil	Normal	3299078	4	0.7	<20	<0.10	10	9	18.7	<0.10	4	39	-	-	-	-
	12 Jun 2023	Dup F1	Soil	Field_D	3299078	3	0.7	<20	<0.10	9	8	17.8	<0.10	4	36	-	-	-	-
RPD						29	0	0	0	11	12	5	0	0	8	-	-	-	-
	29 Jun 2023	SB 07 TP 01 0.1	Soil	Normal	3299078	4	0.6	<20	<0.10	18	73	25	<0.10	11	66	-	-	-	-
		Trip A	Soil	Interlab_D	23-27152	4.2	0.56	9.1	0.086	18.3	68.3	24.7	0.034	10.4	75.0	-	-	-	-
RPD						5	7	0	0	2	7	1	0	6	13	-	-	-	-
NW FILL TP01	11 Sep 2023	NW FILL TP01 0.1	Soil	Normal	3362681	6	1.0	<20	0.18	10	25	13.6	0.19	5	43	-	-	-	-
	12 Sep 2023	DUP J1	Soil	Field_D	3362681	4	0.8	<20	<0.10	12	19	15.8	0.14	6	30	-	-	-	-
RPD						**40**	22	0	**57**	18	27	15	30	18	**36**	-	-	-	-
	11 Sep 2023	NW FILL TP04 0.1	Soil	Normal	3362681	5	1.0	<20	0.13	11	19	14.9	0.27	3	27	-	-	-	-
		Trip D	Soil	Interlab_D	23-28470	6.8	1.0	1.9	0.099	14.2	25.0	18.8	0.14	7.24	41.0	-	-	-	-
RPD						**31**	0	0	27	25	27	23	**63**	**83**	**41**	-	-	-	-
WDG TP02	12 Sep 2023	WDG TP02 0.1	Soil	Normal	3362681	5	0.8	<20	<0.10	12	21	18.6	0.16	6	31	-	-	-	-
		Trip E	Soil	Interlab_D	23-28470	3.7	0.94	2.3	0.11	14.6	29.6	30.0	0.094	9.48	75.0	-	-	-	-
RPD						30	16	0	10	20	**34**	**47**	**52**	**45**	**83**	-	-	-	-
WDH TP02	12 Sep 2023	WDH TP02 0.1	Soil	Normal	3362681	3	0.9	<20	<0.10	14	25	24	<0.10	8	58	-	-	-	-
		DUP J2	Soil	Field_D	3362681	3	0.8	<20	<0.10	13	25	26	<0.10	8	58	-	-	-	-
RPD						0	12	0	0	7	0	8	0	0	0	-	-	-	-

Location Code	Field ID	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	PAHs (Sum of total) - Lab calc
		PAHs - standard 16															
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.02	
B35_TP04	B35 TP 04 0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DUP A1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BWL_TP04	BWL TP 04 0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DUP B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DS01_TP03	DS01 TP03 0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DUP C1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B16_TP01	B16 TP01 0.1	<0.011	<0.011	<0.011	<0.011	<0.011	-	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.049	<0.011	<0.3
	Dup E5	<0.013	<0.013	<0.013	<0.013	<0.013	-	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.014	<0.013	<0.4
RPD		0	0	0	0	0	-	0	0	0	0	0	0	0	**111**	0	0
	B59 TP03 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dup E4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	B74 HA02 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dup E3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HSP SED 01 0.1	<0.5	<0.5	<0.5	<0.5	<1.0	-	<1.0	<1.0	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	-
	Trip B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HSP SED 01 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trip B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WWTP_TP02	WWTP TP02 0.10	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
	Dup D1 [A]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DS02_TP02	DS02 TP02 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dup E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DS03_TP04	DS03 TP04 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dup F1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB 07 TP 01 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trip A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NW FILL TP01	NW FILL TP01 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
	DUP J1	<0.016	<0.016	<0.016	<0.016	<0.016	-	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.4
RPD		0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-
	NW FILL TP04 0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
	Trip D	<0.010	<0.010	<0.010	<0.020	<0.010	<0.020	<0.010	<0.020	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.020	-
RPD		0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-
WDG TP02	WDG TP02 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trip E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WDH TP02	WDH TP02 0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DUP J2	<0.012	<0.012	0.021	0.20	0.25	-	0.131	0.179	0.165	0.034	0.36	<0.012	0.178	0.047	0.35	2.4
RPD		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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