

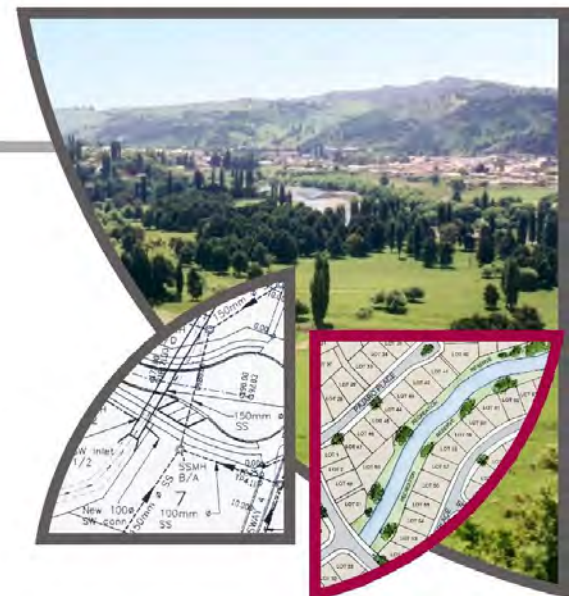
TOITŪ TE WHENUA

LAND INFORMATION NEW ZEALAND



Fraser Thomas
ENGINEERS • RESOURCE MANAGERS • SURVEYORS

146 TE MAWHAI ROAD, TE
AWAMUTU



FORMER TOKANUI PSYCHIATRIC HOSPITAL
DEMOLITION AND REMEDIATION
ADDENDUM DETAILED SITE INVESTIGATION

TOITŪ TE WHENUA

LAND INFORMATION NEW ZEALAND



146 TE MAWHAI ROAD
TE AWAMUTU

FORMER TOKANUI PSYCHIATRIC HOSPITAL
DEMOLITION AND REMEDIATION
ADDENDUM DETAILED SITE INVESTIGATION

Project No.	33097	Approved for Issue	
Version No.	1	Name	Sean Finnigan
Status	Final	Signature	
Authors	E Bish/ D Bull/ S Finnigan	Date	13/11/2024
Reviewer	S Finnigan/ D Bull		

Fraser Thomas Limited

Consulting Engineers, Licensed Surveyors
Planners & Resource Managers
**Level 1, 21 El Kobar Drive, East Tamaki,
Auckland, 2025**
PO Box 204006, Highbrook, Auckland, 2025
Auckland, New Zealand
Tel : +64 9 278-7078
Email: sfinnigan@ftl.co.nz

TOITŪ TE WHENUA – LAND INFORMATION NEW ZEALAND
FORMER TOKANUI PSYCHIATRIC HOSPITAL DEMOLITION AND REMEDIATION
ADDENDUM DETAILED SITE INVESTIGATION

EXECUTIVE SUMMARY

The closed Tokanui Hospital (the Site) is a former psychiatric hospital approximately 80 hectares (ha) in area, located approximately 14km southeast of Te Awamutu, Waikato, with 74 buildings, a decommissioned wastewater treatment plant, swimming pool, eight substations, a closed landfill (also referred to as the 'existing disposal site') and substantial roading, underground infrastructure, and services.

The land is presently in a degraded state, arising from the hospital buildings and associated infrastructure still present on it. Many of the former Tokanui Hospital buildings remain, and these buildings are generally in very poor condition. While a range of potential site contamination issues have been ruled out through earlier investigations, the primary contamination issues relate to localised contamination of soil around the building perimeters (forming a 'halo' around the buildings) from lead-based paint and/or asbestos. Accordingly, the Deed requires that before offering the land to Maniapoto, the Crown must demolish and remove buildings and structures, and remediate the land, leaving it in a grassed state.

A detailed summary of the site history and contaminated land investigations undertaken to date can be found in the report titled *Toitū Te Whenua – Land Information New Zealand, Former Tokanui Psychiatric Hospital Demolition and Remediation, Remedial Options Report* ('ROR') dated May 2024 and prepared by Fraser Thomas Limited and HAIL Environmental Limited. This report should be read in conjunction with the ROR.

This Addendum DSI report covers an additional soil sampling/lab testing and X-ray fluorescence spectrometry (XRF) investigation undertaken by Fraser Thomas and HAIL Environmental in February-March 2024. This investigation was undertaken to fill in gaps where there was found to be no sampling or insufficient sampling around hospital buildings, to satisfy Contaminated Land Management (CLM) Guideline requirements.

In total, 102 individual samples from 51 locations at two depths were collected around site structures (mainly buildings) across the site for semi-quantitative asbestos in soil analysis, with 51 shallow samples and 11 deeper samples tested. The soil sampling results identified asbestos fibres in 17 of the 62 samples analysed. The concentrations of asbestos fibres detected in 7 of the samples (B30 D 0.1m, B30 E 0.1m, B56 C 0.1m, B56 C 0.3m, B63 B 0.1m, B55 D 0.1m & B55 D 0.3m) exceeded both the site-specific remedial standard and the Resource Management (National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations (2011) commercial/industrial outdoor worker (unpaved) standard.

Halo sampling confirmed elevated lead concentrations in shallow soils around buildings, with concentrations decreasing with distance from the building and with depth in the soil. Lead exceeded the site-specific rural residential remediation standard to a distance of 3 m from the building and to the base of topsoil at B2, B5, B7, B8, B11, B13, B15, B17, B18, B21, B23, B24, B27, B29, B33, B35, B37, B38, B52, B58, B59, B73 and in places around B12, B19, B55, B74 and exceeded the site-specific managed remedial standard to a distance of 1m from the building and to a depth of 0.25m.

Halo sampling also identified elevated zinc concentrations in shallow soils around many of the buildings where lead was elevated. Similar to lead, zinc concentrations generally decreased with distance from the building and with depth in the soil. Leachability sampling confirmed a strong correlation between the total recoverable and the SPLP leachable lead and zinc.

Gardener shed (B59) sampling confirmed trace levels of DDT, but no further evidence of other herbicides.

During this intrusive investigation work, a number of locations were identified where potential fill pockets may be present, potentially associated with historical demolition works or former site construction activities. These pockets appeared to be relatively minor and it was decided to handle them under the accidental discovery process during site demolition works. These locations are identified as NBA (non-building areas) 1-11 on Figure NBA01.

Delineation testing in Area I has found that the majority of this area comprises silts/sands with minor gravels and clay while construction and demolition debris and some asbestos fibre and bulk material contamination is present in isolated areas.

The majority of the Culvert 2 embankment soils are suitable for reuse as backfill material within the hospital as part of the demolition works, apart from some pockets of construction and demolition waste and some asbestos pipework that can be separated out as part of the embankment removal process.

This investigation has been managed, reviewed, and approved by Suitably Qualified and Experienced Practitioners (SQEPs), as defined in the NESCS.

Copyright of this report is held by Fraser Thomas Ltd and HAIL Environmental Ltd. The professional opinion expressed herein has been prepared solely for, and is furnished to our client, Toitū Te Whenua – Land Information New Zealand, on the express condition that it will only be used for the works and the purpose for which it is intended. No liability is accepted by this firm or by any principal, or director, or any servant or agent of this firm, in respect of its use by any other person, and any other person who relies upon any matter contained in this report does so entirely at its own risk. This disclaimer shall apply notwithstanding that this report may be made available to any person by any person in connection with any application for permission or approval, or pursuant to any requirement of law.

NATIONAL ENVIRONMENTAL STANDARD FOR ASSESSING AND MANAGING CONTAMINANTS IN SOIL TO PROTECT HUMAN HEALTH

DETAILED SITE INVESTIGATION - CERTIFYING STATEMENT

I, Dr Sean Matthew Finnigan of Fraser Thomas Ltd *certify* that:

This Addendum Detailed Site Investigation meets the requirements of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, NESCS) Regulations 2011 because it has been:

- a. done by suitably qualified and experienced practitioners, and
- b. done in accordance with the current edition of Contaminated land management guidelines No 5 – Site investigation and analysis of soils, and
- c. reported on in accordance with the current edition of Contaminated land Management Guidelines No 1 – Reporting on Contaminated Sites in New Zealand, and
- d. the report is certified by a Suitably Qualified and Experienced Practitioner.

This Addendum Detailed Site Investigation concludes that:

- a. Soil sampling results exceed the adopted Site-Specific Remedial Standards and the NESCS soil contaminant standards for Commercial/Industrial Outdoor Worker (unpaved) land use in multiple locations for asbestos.

This investigation has been undertaken by the following staff:

- a. Dr Sean Finnigan, BE, MEnv.Sci, PhD; CPEng, M. ALGA, M.WasteMINZ, CEnvP-CL (24 yrs CL experience)
- b. Elliot Bish, BSc, PGDipSci, M.ALGA, M.WasteMINZ, CEnvP-G, MEIANZ (7.5 yrs CL experience) and the report is certified by a Suitably Qualified and Experienced Practitioner – i.e. a CEnvP-Contaminated Soil (CEnvP-CS).

Further evidence of these staff' qualifications and experience can be provided on request.

Signed:

Date: 13 November 2024



TOITŪ TE WHENUA – LAND INFORMATION NEW ZEALAND
FORMER TOKANUI PSYCHIATRIC HOSPITAL DEMOLITION AND REMEDIATION
ADDENDUM DETAILED SITE INVESTIGATION

TABLE OF CONTENTS

1	INTRODUCTION	1
2	RATIONALE, OBJECTIVES AND SCOPE OF WORK	2
3	INVESTIGATION METHODOLOGY	2
4	BACKGROUND INFORMATION	2
5	INTRUSIVE SAMPLING	3
5.1	INTRODUCTION	3
5.2	DATA QUALITY OBJECTIVES & CONCEPTUAL SITE MODEL	3
5.3	EVALUATION BASIS	5
5.4	METHODOLOGY	5
5.4.1	Site Structures	5
5.4.2	Halo sampling	5
5.4.3	Leachability sampling	6
5.4.4	Gardener shed sampling	6
5.4.5	Suspected Fill Pockets	8
5.4.6	Area I	8
5.4.7	Culvert 2 Embankment	10
5.5	RESULTS SUMMARY	11
5.5.1	Site Structures	11
5.5.2	Halo sampling	14
5.5.3	Gardener shed sampling	15
5.5.4	Leachability sampling	16
5.5.5	Area I	17
5.5.6	Culvert 2 Embankment	20
5.5.7	Other Areas	22
6	WWTP INVESTIGATIONS	26
6.1	DSI – WSP (OCT 2019)	26
6.2	DSI FACTUAL REPORT – GHD (JANUARY 2024)	26
7	DISCUSSION	28
7.1	SOIL ANALYTICAL RESULTS	28

7.1.1	Site Structures	28
7.1.2	Area I	28
7.1.3	Culvert 2 Embankment	29
7.2	CONSENTING REQUIREMENTS & SOIL MANAGEMENT/REMEDIAL REQUIREMENTS	29
8	CONCLUSIONS	29
9	LIMITATIONS	30

FIGURES

33097/F1	Site Location Plan
33097/F2	Additional Sample Location Plan
33097/F2-1 to F2-25	Building Specific Sample Location Plans
33097/NBA01	Non-Building Areas Location Plan
33097/NBA02	Non-Building Areas (Area I – Topsoil)
33097/NBA03	Non-Building Areas (Area I – Fill)
33097/NBA04	Non-Building Areas (Embankment)
33097/NBA05	Non-Building Areas (Former Wastewater Treatment Plant)
33097/NBA06	Non-Building Areas (Agricultural Area)
33097/NBA07	Non-Building Areas (Demolished Structure)

APPENDICES

A	Ministry for the Environment Contaminated Sites Report Checklist
B	FTL Laboratory Results & Transcripts
C	HAIL XRF/Laboratory Results & Transcripts
D	QA/QC

TOITŪ TE WHENUA – LAND INFORMATION NEW ZEALAND
FORMER TOKANUI PSYCHIATRIC HOSPITAL DEMOLITION AND REMEDIATION
ADDENDUM DETAILED SITE INVESTIGATION

1 INTRODUCTION

The closed Tokanui Hospital (the Site) is a former psychiatric hospital approximately 80 hectares (ha) in area, located approximately 14km southeast of Te Awamutu, Waikato, with 74 buildings, a decommissioned wastewater treatment plant, swimming pool, eight substations, a closed landfill (also referred to as the 'existing disposal site') and substantial roading, underground infrastructure, and services.

The land is presently in a degraded state, arising from the hospital buildings and associated infrastructure still present on it. Many of the former Tokanui Hospital buildings remain, and these buildings are generally in very poor condition. While a range of potential site contamination issues have been ruled out through earlier investigations, the primary contamination issues relate to localised contamination of soil around the building perimeters (forming a 'halo' around the buildings) from lead-based paint and/or asbestos. Accordingly, the Deed requires that before offering the land to Maniapoto, the Crown must demolish and remove buildings and structures, and remediate the land, leaving it in a grassed state.

A detailed summary of the site history and contaminated land investigations undertaken to date can be found in the report titled *'Toitū Te Whenua – Land Information New Zealand, Former Tokanui Psychiatric Hospital Demolition and Remediation, Remedial Options Report'* (henceforth referred to as 'the ROR') dated May 2024 and prepared by Fraser Thomas Limited (FTL) and HAIL Environmental Limited (HAIL Environmental). This report should be read in conjunction with the ROR.

This report covers additional soil sampling/lab testing and XRF investigation undertaken by FTL and HAIL Environmental in February-March 2024 to fill in gaps where there was found to be no sampling or insufficient sampling around hospital buildings and in other additional locations to satisfy Contaminated Land Management (CLM) Guideline requirements. It also includes a summary of results from previous soil sampling investigations in the former Wastewater Treatment Plant (WWTP) area.

The format of this report is as follows:

- Rationale, objectives and scope of work;
- Investigation methodology;
- Background Information;
- Intrusive Sampling and Results;
- Discussion and Conclusions; and,
- Site plans, representative photographs and other relevant information in appendix form.

This investigation has been managed, reviewed, and approved by Suitably Qualified and Experienced Practitioners (SQEPs), as defined in the Resource Management (National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations, 2011 (NESCS).

2 RATIONALE, OBJECTIVES AND SCOPE OF WORK

The main rationale and objectives for this investigation were:

- To better understand the nature of the soils (visual observation, soil sampling) surrounding select existing structures and other specified locations at the site;
- Determine the nature and severity of contamination (if any) in these soils; and,
- Determine whether excess excavated soil, if any, from site remediation can be retained on-site or where it can be disposed of (cleanfill, managed fill or landfill).

3 INVESTIGATION METHODOLOGY

The methodology used for this site assessment is summarised below:

1. Desktop study involving review of existing environmental assessments for the subject site;
2. Gap Analysis, identifying areas of the site not assessed to a sufficient standard;
3. Soil sampling and laboratory analysis (FTL) and X-ray fluorescence spectrometry (XRF) investigation (HAIL Environmental);
4. Preparation of an Addendum Detailed Site Investigation (DSI) report including the results of the GAP analysis, additional sampling and analysis, conclusions and recommendations; and,
5. Provision of site plans, relevant documentation and representative photographs as appendices to this report.

Fraser Thomas Limited & HAIL Environmental Limited Health and Safety Management Plan procedures were followed throughout the duration of the investigation.

4 BACKGROUND INFORMATION

The history of the site has been detailed in numerous preceding reports, prepared by FTL and other consultants.

A detailed summary of the site history can be found in the report titled '*Toitū Te Whenua – Land Information New Zealand, Former Tokanui Psychiatric Hospital Demolition and Remediation, Remedial Options Report*' (henceforth referred to as 'the ROR') dated May 2024 and prepared by FTL and HAIL Environmental. This report should be read in conjunction with the ROR.

In brief, a GAP analysis was undertaken as part of reviewing previously completed reports for the site, which included plotting all sampling locations with available contamination lab testing results in ArcGIS for the site. During this process, it was noted that some existing soils surrounding structures at the site had not been assessed at a density sufficient to comply with the relevant Ministry for the Environment (MfE) Contaminated Land Management Guidelines (CLMGs), with this sampling being needed to enable informed decision-making regarding soil reuse and/or disposal. Furthermore, some soils surrounding structures had not been assessed at all. Investigation was also undertaken of Area I (based on this being a potential localised fill area) and of the Culvert 2 embankment (proposed for removal) to check for contamination in these locations, while results from previous intrusive investigations of the former WWTP are included in this report to inform minor soil contamination remedial works in this area.

Following this GAP analysis and review in February/March 2024, FTL and HAIL Environmental undertook additional investigation, targeting these soils, involving a combination of additional soil sampling and lab testing and XRF investigation. FTL were responsible for all asbestos testing work, while HAIL Environmental were responsible for the XRF investigation and verification lab testing for heavy metals.

This report presents the methodology and results of the additional investigation, which targeted the soils in the immediate vicinity of site structures, which were considered to be potentially impacted by HAIL I and E1, as well as soils in the Area I and Culvert 2 embankment areas.

5 INTRUSIVE SAMPLING

5.1 INTRODUCTION

The targeted intrusive investigation focused on the potential presence of heavy metals and asbestos in soil around site structures. This form of contamination is likely derived from lead-based paint and asbestos in deteriorated condition on select structures migrating during maintenance activities and/or migrating into soils on site due to substrate deterioration over time. It also checked for a wider range of contaminants in Area I and the Culvert 2 embankment areas.

5.2 DATA QUALITY OBJECTIVES & CONCEPTUAL SITE MODEL

In accordance with CLMG No 5, the Data Quality Objectives (DQOs) and Conceptual Site Model (CSM) for this investigation are summarized in Table 2.

Table 2: DQOs and CSM

Purpose of Investigation	Fill the data gaps required to determine lateral and vertical extent of contamination around existing site structures and other specific areas and to assess human health risks associated with the proposed remediation of these areas.	
Define boundaries	Investigation focused on the soils surrounding existing structures at the site and Area I and Culvert 2 embankment	
Develop Conceptual Site Model	Known/possible HAIL land use	HAIL 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; and HAIL E1 – Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.
	Contaminants of concern	Site structures: Heavy metals and asbestos Area I and Culvert 2 Embankment: Heavy metals, polycyclic aromatic hydrocarbons (PAHs) and asbestos + organochlorine pesticides (OCPs) (embankment only)
	Distribution of contaminants	Lateral – across the site Vertical – depending on the soil type
	Receptors	Site users (long term) and construction workers (short term)
	Potential pathways	Dermal contact, ingestion and inhalation
	Applicable land use scenario	Site Specific Remedial Standards – Wetlands & Rural Residential Standards; and NESCS Commercial/Industrial outdoor worker (unpaved) standard.
Additional information required (Sampling and Analysis Plan)	Targeted sampling was undertaken across the site. Specific soils in the immediate vicinity of select structures were targeted for: • XRF screening, followed by collection of soil samples for laboratory verification for heavy metals (for structures where potential lead paint in deteriorated condition was observed). • Targeted sampling of soils in the immediate vicinity of structures built with asbestos containing materials (ACM) observed to be in a deteriorated condition. • Targeted sampling was also undertaken in Area I and across the Culvert 2 Embankment.	

5.3 EVALUATION BASIS

The sampling results have been compared with:

- The site-specific remedial standards, as presented in the HAIL Environmental Site-Specific Risk Assessment, Version 3.2, dated February 2024; and
- The NESCS Soil Contaminant Standards (SCS) for Commercial/Industrial Outdoor Worker (unpaved) land use, which incorporate the BRANZ 2017 Asbestos in Soil Guidelines, specifically the soil guidelines for Commercial/Industrial sites.

5.4 METHODOLOGY

5.4.1 Site Structures

Between the 12th – 16th February 2024, FTL personnel collected a total of 102 individual samples from 51 locations at two depths using a 50mm Hand Auger. All shallow samples (0-0.15m depth below ground level (bgl)) were analysed for semi-quantitative asbestos in soil at an IANZ accredited laboratory.

Based on the initial sampling results, a further 11 samples were analysed from the next depth tier (0.15-0.3m bgl), in order to better delineate the contamination detected in the shallow samples.

The remaining samples were stored on hold at an IANZ accredited laboratory.

5.4.2 Halo sampling

Concurrently, between the dates of 13th - 22nd February 2024, HAIL Environmental personnel completed halo sampling to assess the extent of lead and/or zinc contamination around site buildings. For consistency with previous investigations (Refs: AECOM, GHD), field screening was generally completed at 0.5, 1.5, 2.5, 3.5 and 6.5m distances along transects set out perpendicular to each building. Screening was also completed at 100mm depth increments at the 0.5 m distance.

Up to five transects were set out at each building, generally excluding buildings previously assessed. Buildings constructed from materials highly unlikely to include lead-based paint (e.g. uPVC cladding) were excluded from the current investigation.

At buildings surrounded or largely surrounded by impermeable surfacing or hardfill (e.g. B21, B23, B26, B28, B53, B58, B59, B62, B63, B71), test pits were excavated to a maximum depth of 1m bgl. Field screening was completed at 100mm depth increments at the edge of the test pit nearest the building.

Field screening was completed using XRF: 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 VCR XRF instrument was used with 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. The instrument was calibrated by the manufacturer, and calibration was checked using standard reference materials (NIST 2710A and 2711A) and a plastic blank before and after operation, including at any battery change during the day.

Soils were screened *in situ*. Replicate measurements were collected at a minimum rate of 1 in every 10 measurements. HAIL Environmental XRF data is included as Appendix C.

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 and/or zinc concentrations identified by the XRF.

Soil samples were collected directly into laboratory-supplied glass jars and submitted to an IANZ accredited laboratory for total recoverable lead and/or zinc analysis.

In total, 28 laboratory verification samples were collected from 25 locations at variable depths across 34 transects and 10 test pits.

5.4.3 Leachability sampling

Leachability sampling was completed on soils around a subset of buildings to assess soil for removal. These buildings were B2, B11, B12, B19, B21, B38, B55, B56 and B59.

Matched soil samples collected during the halo sampling to represent the lower, middle and upper range of lead and zinc concentrations identified by the XRF were submitted to an IANZ accredited laboratory for Synthetic Precipitation Leaching Procedure (SPLP) analysis for lead and zinc. The SPLP test simulates leaching during typical environmental conditions.

In total, 12 samples were collected from 11 locations at variable depths across 11 transects for SPLP analysis for lead and/or zinc.

5.4.4 Gardener shed sampling

Soils in the vicinity of the former 'Gardener' shed (B59) were sampled for selected heavy elements and pesticide residues, to supplement the GHD 2023 investigation (Ref: GHD).

Four test pits were excavated to a maximum depth of 1 m bgl along the northern and eastern walls, with soil samples collected from a depth of between 0.0-0.1 m bgl and a depth of 0.5 m bgl.

The samples were submitted to an IANZ accredited laboratory for acid herbicide analysis. The laboratory was also instructed to prepare a composite of the four shallow samples for organochlorine pesticide (OCP) analysis.

These samples are representative of the soil that might have been impacted by HAIL activity I and which are likely to be disturbed during the proposed remedial works.

The breakdown of all sampling is shown in Table 3 below.

Table 3: FTL - Soil Sample Breakdown

Sample ID and depth (m)	Soil description	Test
B02 A – D 0.1, B03 A – B 0.1, B10 A – B 0.1, B20 A – C 0.1, B23 A – F 0.1, B28 A – C 0.1, B30 A – F 0.1, B53 A, C, D 0.1, B55 A – F 0.1, B56 A – D 0.1, B58 A – C 0.1, B62 A 0.1, B63 B – C 0.1, B71 A – B 0.1, B75 A – B 0.1, EF01	Topsoil with minor rootlets	Semi-Quantitative Asbestos in Soil (BRANZ)
B20 A 0.3, B30 A, B, D, E, 0.3, B55 D 0.3, B56 C 0.3, B58 C 0.3, B63 B, C 0.3, B75 A 0.3	Light brown to dark brown silty topsoil with minor clay	
B26 FILL 0.4	Grey clay with dark streaks	
B2/3 A 0.6, B2/4 A 0.5, B56/4 A 0.4	Orange-brown silt	Total recoverable lead
B3/1 A 0.0, B11/3 A 0.0, B12/2 A 0.2, B12/4 A 0.1, B12/4 B 0.0, B15/4 B 0.0, B15/5 A 0.0, B19/2 A 0.0, B19/3 A 0.1, B21/3 A 0.0, B21/4 A 0.0, B30/3 A 0.0, B37/2 A 0.0, B38/2 A 0.0, B45/3 A 0.0, B46/3 A 0.2, B47/3 A 0.0, B48/3 A 0.0, B55/3 A 0.0, B55/4 A 0.0, B56/3 A 0.0, B56/4 A 0.0, B28 TP01 0.2, B53 TP02 0.2, B53 TP03 0.0, B58 TP01 0.1, B58 TP02 0.1, B63 TP01 0.2, B71 TP01 0.5, B59 TP01 0.1, B59 TP02 0.1, B59 TP03 0.1, B59 TP04 0.1	Light brown to dark brown silty topsoil	
B59 TP01 0.5, B59 TP02 0.5, B59 TP03 0.5, B59 TP04 0.5, B63 TP02 0.5	Orange and grey silty clay	
B11/3 A 0.0, B11/3 A 0.1, B12/4 B 0.0, B12/4 B 0.0, B19/2 A 0.0, B21/3 A 0.0,	Brown silty topsoil	Total recoverable lead and/or zinc;

B38/2 A 0.0, B56/3 A 0.0, B56/4 A 0.0, B55/3 A 0.0, B55/4 A 0.0, B59 TP02 0.1		SPLP lead and/or zinc
B59 TP01 0.1, B59 TP02 0.1, B59 TP03 0.1, B59 TP04 0.1	Brown silty topsoil	Acid herbicides
B59 TP01 0.5, B59 TP02 0.5, B59 TP03 0.5	Orange and grey silty clay	
Composite of B59 TP01 0.1, B59 TP02 0.1, B59 TP03 0.1 and B59 TP04 0.1,	Brown silty topsoil	OCPs

The sampling locations and results are shown on FTL Figures 33097/ADSI/002 & 33097/ADSI/B02 – 33097/ADSI/B75 appended to this report and in the following table. All FTL laboratory results are provided as Appendix B, while HAIL Environmental XRF/lab results are provided as Appendix C

5.4.5 Suspected Fill Pockets

During this intrusive investigation work, a number of locations were identified where potential fill pockets may be present, based on observation of some construction and demolition waste, and thus potentially associated with historical demolition works or former site construction activities. These pockets appeared to be relatively minor and it was decided to handle them under the accidental discovery process during site demolition works. These locations are identified as NBA (non-building areas) 1-11 on Figure NBA01.

The locations of Area I and the Culvert 2 embankment are also shown on this drawing.

5.4.6 Area I

Earlier investigation described in the separate FTL Intrusive Investigation report (June 2024) for the former site landfill included a walkover and more widespread sampling along the western side of the Wharekōrino Stream. This work along with a desktop review of aerial photographs identified Area I as a potential historical fill area, based on the findings of three test pits in this area (TP50, TP56 & TP57). Fill material mainly comprising silt/sand, minor clay and gravel and variable construction debris (<10 to 40%), minor general refuse (TP57 only) and buried topsoil were found in these testpits. Representative testpit photos are shown below.



Figure 1: TP50 Photos



Figure 2: TP56 Photo



Figure 3: TP57 Photo

It appears filling in this area may have been more opportunistic than planned and associated with a number of natural depressions present in this area as well as a cavity created by a fallen tree.

As part of this Addendum DSI, additional testpit investigation was undertaken of Area I to better delineate the horizontal and vertical extent of soil contamination. This involved nine testpits, labelled TPD01-09. Potential ACM was observed in TPD03 at 0.2m, 0.6-0.9.7m and 1m; TPD04 at 1.4m and TPD06 at 0.8m depth. All testpits primarily comprised soil fill materials (silts/sands and minor clays/gravel). Samples from each testpit were tested for Heavy metals, PAHs, OCPs and asbestos.

5.4.7 Culvert 2 Embankment

This is a redundant road embankment crossing the Wharekōrino Stream that provided an historical side road entrance to the Site. The road embankment is approximately 6m wide (at the top) by 50-60m long. It is relatively high, with an estimated height of 5.5m from the stream bed to the embankment crest. Geotechnical investigation of this embankment found that the majority of the fill material appears to be controlled fill, likely borrowed from a nearby source. The exception was fill material, containing minor (ETP05), trace (ETP06) and abundant (ETP07) construction debris including concrete, bricks, metal and wire in 0.6-1.0m thick layers. Based on its nature, fill material with abundant (>50%) construction debris has been classified as non-engineered, 'Landfill' material – this applies to ETP07 only. Relevant photos are shown below.

	
ETP05: Minor (5-12%) C&D debris present including concrete/brick fragments at 1.4-2.4m depth.	ETP06: Trace (<5%) C&D debris, including concrete/burnt debris at 1.4-2.0m; 250dia asbestos pipe at 1.8-2.2m depth.



Figure 4: Embankment Testpit Findings

5.5 RESULTS SUMMARY

5.5.1 Site Structures

The soil sampling results are summarised in the table below. The laboratory certificates are shown in Appendices C and E.

4.5 RESULTS SUMMARY

The soil sampling results are summarised in the table below. The laboratory certificates are shown in Appendix E

Table 4: Summary of Asbestos Sampling Results

Former Tokanui Psychiatric Hospital: Addendum DSI Results																			
Sample Date	Background Concentrations	Site Specific Remedial Standard ¹		NESCS commercial/ industrial outdoor worker (unpaved) ²	Waste Acceptance Criteria		12/2/24 - 16/2/24												
Sample Name							B02 A 0.1	B02 B 0.1	B02 C 0.1	B02 D 0.1	B03 A 0.1	B03 B 0.1	B10 A 0.1	B10 B 0.1	B20 A 0.1	B20 A 0.3	B20 B 0.1	B20 C 0.1	B23 A 0.1
Sample Depth (m)					WRC Cleanfill Criteria	Hampton Downs landfill	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0.15-0.3	0-0.15	0-0.15	0-0.15
Lab Number							Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00643/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097
Heavy Metals (mg/kg dry weight)	95% upper limit for background (mg/kg)																		
Asbestos (SQ)		Wetlands & Rural Residential Standard	Managed Standard		ND	AF/FA & ACM	ND	ND	ND	ND	ND	ND	ND	ND	Chrysotile (White Asbestos) Detected	ND	ND	ND	ND
AF/FA	ND	< 0.001		< 0.001			-	-	-	-	-	-	-	-	< 0.001*	-	-	-	-
% ACM	ND	< 0.01	< 0.02	< 0.05			-	-	-	-	-	-	-	-	< 0.01	-	-	-	-

Note:
1. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated February 2024
2. BRANZ 2017 Asbestos in Soil guidelines of 0.05% w/w % ACM or 0.001% w/w for % FA & AF fraction for Commercial/Industrial sites.

Underlined: Above background concentrations
RED: Exceeded Site Specific Remedial Standards
BOLD: Exceeded NES:CS Commercial/Industrial Outdoor Worker
ND: Not detected
- Not tested for
Above cleanfill acceptance criteria
Above Class 1 landfill acceptance criteria

Former Tokanui Psychiatric Hospital: Addendum DSI Results																			
Sample Date	Background Concentrations	Site Specific Remedial Standard ¹		NESCS commercial/ industrial outdoor worker (unpaved) ²	Waste Acceptance Criteria		12/2/24 - 16/2/24												
Sample Name							B23 D 0.1	B23 E 0.1	B23 F 0.1	B26 Fill 0.4	B28 A 0.1	B28 B 0.1	B28 C 0.1	B30 A 0.1	B30 A 0.3	B30 B 0.1	B30 B 0.3	B30 C 0.1	B30 D 0.1
Sample Depth (m)					WRC Cleanfill Criteria	Hampton Downs landfill	0-0.15	0-0.15	0-0.15	0.35-0.45	0-0.15	0-0.15	0-0.15	0-0.15	0.15-0.3	0-0.15	0.15-0.3	0-0.15	0-0.15
Lab Number							Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00643/33097	Q-00618/33097	Q-00643/33097	Q-00618/33097	Q-00618/33097
Heavy Metals (mg/kg dry weight)	95% upper limit for background (mg/kg)																		
Asbestos (SQ)		Wetlands & Rural Residential Standard	Managed Standard		ND	AF/FA & ACM	ND	ND	ND	ND	ND	ND	ND	Chrysotile (White Asbestos) Detected	ND	Amosite (Brown Asbestos) & Chrysotile (White Asbestos) Detected	Chrysotile (White Asbestos) Detected	ND	Chrysotile (White Asbestos) Detected
AF/FA	ND	< 0.001		< 0.001			-	-	-	-	-	-	-	< 0.001*	-	< 0.001*	< 0.001*	-	0.009
% ACM	ND	< 0.01	< 0.02	< 0.05			-	-	-	-	-	-	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01

Note:
1. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated February 2024
2. BRANZ 2017 Asbestos in Soil guidelines of 0.05% w/w % ACM or 0.001% w/w for % FA & AF fraction for Commercial/Industrial sites.

Underlined: Above background concentrations
RED: Exceeded Site Specific Remedial Standards
BOLD: Exceeded NES:CS Commercial/Industrial Outdoor Worker
ND: Not detected
- Not tested for
Above cleanfill acceptance criteria
Above Class 1 landfill acceptance criteria

Former Tokanui Psychiatric Hospital: Addendum DSI Results																				
Sample Date	Background Concentrations	Site Specific Remedial Standard ¹		NESCS commercial/ industrial outdoor worker (unpaved) ²	Waste Acceptance Criteria		12/2/24 - 16/2/24													
Sample Name							B30 E 0.3	B30 F 0.1	B53 A 0.1	B53 C 0.1	B53 D 0.1	B56 A 0.1	B56 B 0.1	B56 C 0.1	B56 C 0.3	B56 D 0.1	B58 A 0.1	B58 B 0.1	B58 C 0.1	B58 C 0.3
Sample Depth (m)					WRC Cleanfill Criteria	Hampton Downs landfill	0.15-0.3	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0.15-0.30	0-0.15	0-0.15	0-0.15	0-0.15	0.15-0.3
Lab Number							Q-00643/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00643/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00643/33097
Heavy Metals (mg/kg dry weight)	95% upper limit for background (mg/kg)																			
Asbestos (SQ)		Wetlands & Rural Residential Standard	Managed Standard		ND	AF/FA & ACM	ND	ND	ND	ND	ND	ND	ND	Amosite (Brown Asbestos) & Chrysotile (White Asbestos) Detected	Amosite (Brown Asbestos) & Chrysotile (White Asbestos) Detected	ND	ND	ND	Chrysotile (White Asbestos) Detected	ND
AF/FA	ND	< 0.001		< 0.001			-	-	-	-	-	-	-	0.007	0.004	-	-	-	< 0.001*	-
% ACM	ND	< 0.01	< 0.02	< 0.05			-	-	-	-	-	-	-	< 0.01	< 0.01	-	-	-	< 0.01	-

Note:
1. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated February 2024
2. BRANZ 2017 Asbestos in Soil guidelines of 0.05% w/w % ACM or 0.001% w/w for % FA & AF fraction for Commercial/Industrial sites.

Underlined: Above background concentrations
RED: Exceeded Site Specific Remedial Standards
BOLD: Exceeded NES:CS Commercial/Industrial Outdoor Worker
ND: Not detected
- Not tested for
Above cleanfill acceptance criteria
Above Class 1 landfill acceptance criteria

Former Tokanui Psychiatric Hospital: Addendum DSI Results																				
Sample Date	Background Concentrations	Site Specific Remedial Standard ¹		NESCS commercial/ industrial outdoor worker (unpaved) ²	Waste Acceptance Criteria		12/2/24 - 16/2/24													
Sample Name							B63 B 0.3	B63 C 0.1	B63 C 0.3	B71 A 0.1	B71 B 0.1	B75 A 0.1	B75 A 0.3	B75 B 0.1	B55 A 0.1	B55 B 0.1	B55 C 0.1	B55 D 0.1	B55 D 0.3	B55 E 0.1
Sample Depth (m)					WRC Cleanfill Criteria	Hampton Downs landfill	0.15-0.3	0-0.15	0.15-0.3	0-0.15	0-0.15	0-0.15	0.15-0.3	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0.15-0.3	0-0.15
Lab Number							Q-00643/33097	Q-00618/33097	Q-00643/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00643/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33098	Q-00618/33097
Heavy Metals (mg/kg dry weight)	95% upper limit for background (mg/kg)																			
Asbestos (SQ)		Wetlands & Rural Residential Standard	Managed Standard		ND	AF/FA & ACM	ND	Chrysotile (White Asbestos) Detected	Chrysotile (White Asbestos) & Crocidolite (Blue Asbestos) Detected	ND	ND	Chrysotile (White Asbestos) Detected	ND	ND	ND	ND	ND	Chrysotile (White Asbestos) Detected	Chrysotile (White Asbestos) Detected	ND
AF/FA	ND	< 0.001		< 0.001			-	< 0.001*	< 0.001*	-	-	< 0.001*	-	-	-	-	-	0.008	0.004	-
% ACM	ND	< 0.01	< 0.02	< 0.05			-	< 0.01	< 0.01	-	-	< 0.01	-	-	-	-	-	< 0.01	< 0.01	-

Note:
1. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated February 2024
2. BRANZ 2017 Asbestos in Soil guidelines of 0.05% w/w % ACM or 0.001% w/w for % FA & AF fraction for Commercial/Industrial sites.

Underlined: Above background concentrations
RED: Exceeded Site Specific Remedial Standards
BOLD: Exceeded NES:CS Commercial/Industrial Outdoor Worker
ND: Not detected
- Not tested for
Above cleanfill acceptance criteria
Above Class 1 landfill acceptance criteria

5.5.2 Halo sampling

Halo sampling identified elevated lead concentrations in shallow soils around buildings. Lead concentrations decreased with distance from the building and with depth in the soil.

There was a strong correlation between the lead XRF data and the matched soil samples in the February 2024 dataset. When the intercept was set to zero for the February 2024 dataset, the regression slope was 1.05 and the correlation coefficient (R^2) was 0.95. The February 2024 lead XRF data was corrected on this basis.

The corrected lead XRF data was combined with the March 2023 dataset and then categorised based into one of two groups based on the reported presence of high-lead paint [Ref: 4Sight]. Each group was then plotted to show lead concentrations as a function of both distance and depth, with standard deviation included as a measurement of error. The 95% upper confidence level (UCL) was also calculated.

Buildings with high-lead paints (Figure 5) generally had substantially higher halo soil lead concentrations, than other buildings (Figure 6).

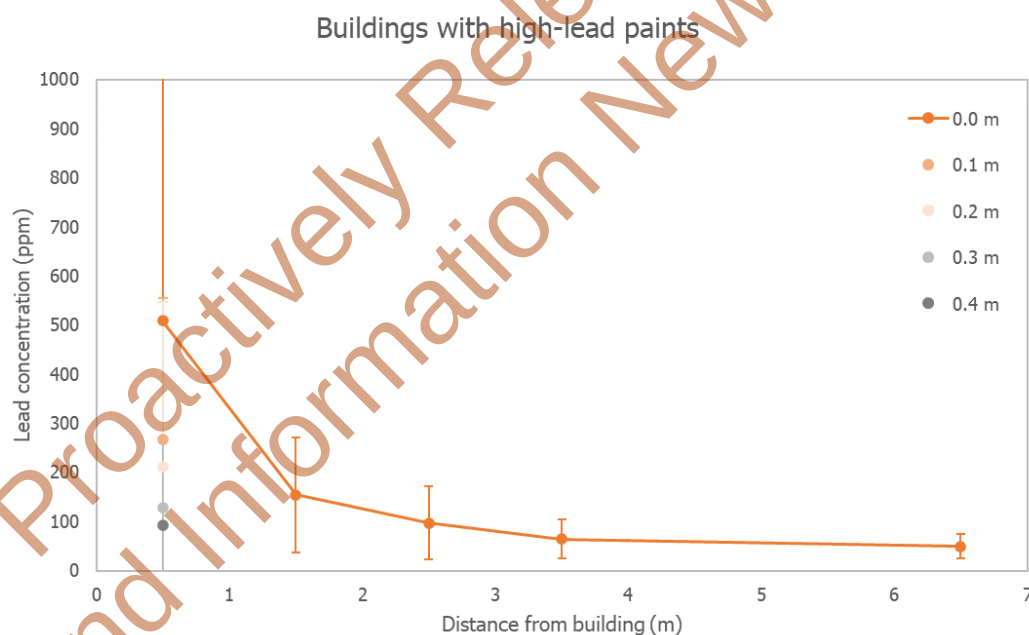


Figure 5: Lead concentrations with depth and distance from buildings with high-lead paints

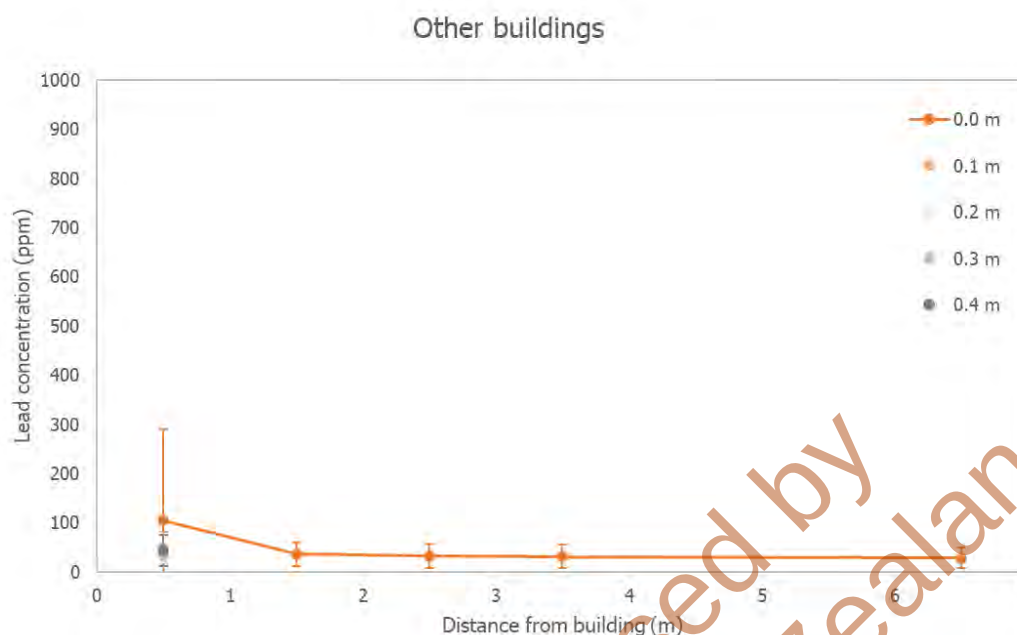


Figure 6: Lead concentrations with depth and distance from other buildings

Overall, the RPD for lead XRF replicates was 22%, which is within the 30% data quality objective. The average RPD of replicates with lead concentrations less than 2000 ppm was 15% and the average RPD of replicates with lead concentrations above 2000 ppm was 22 %. 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. By the same token, heterogeneity is generally lower at low concentrations and error bars are smaller further away from buildings.

Halo sampling identified elevated zinc concentrations in shallow soils around many of the buildings where lead was elevated. Zinc concentrations generally decreased with distance from the building and with depth in the soil.

There was a poor correlation between the zinc XRF data and the matched soil samples in the February 2024 dataset. The XRF data could not be corrected on this basis.

5.5.3 Gardener shed sampling

Acid herbicides were not detected in samples collected in the vicinity of the Gardener shed (B59). Organochlorine pesticides were detected in the composite sample, and there only as traces (0.013 and 0.023 mg/kg) of 4,4'-DDE and 4,4'-DDT, respectively.

5.5.4 Leachability sampling

There was a strong correlation between the total recoverable and the SPLP leachable lead. When the intercept was set to zero, the regression slope was 0.00003 and the correlation coefficient (R^2) was 0.92 (Figure 3).

On this basis, the average SPLP leachable lead concentration for the most impacted samples – from the haloes of buildings with high-lead paints at 0.5 m distance and 0.0 m depth, average total concentration 455 mg/kg – could be predicted as 0.01 mg/L (identified as grey square on Figure 7).

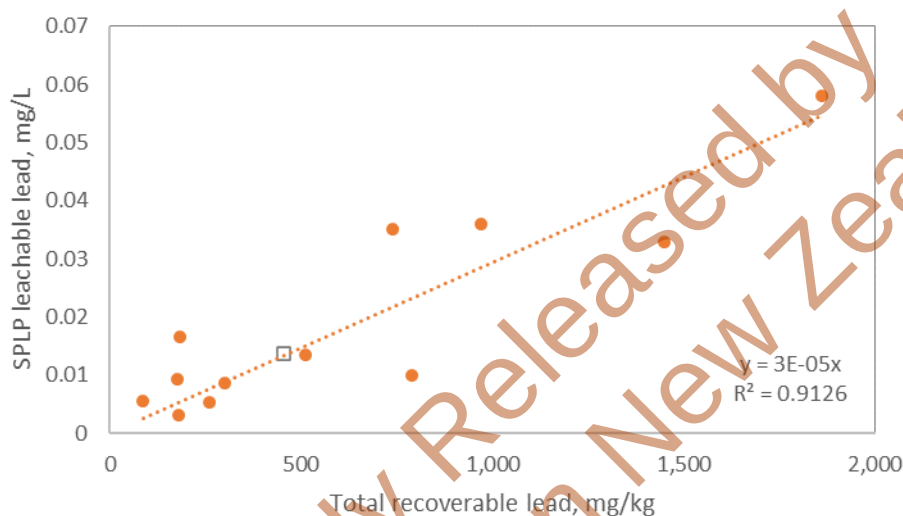


Figure 7: SPLP leachable soil lead around buildings with high-lead paints

There was a strong correlation between the total recoverable and the SPLP leachable zinc. When the intercept was set to zero, the regression slope was 0.00005 and the correlation coefficient (R^2) was 0.83 (Figure 8).

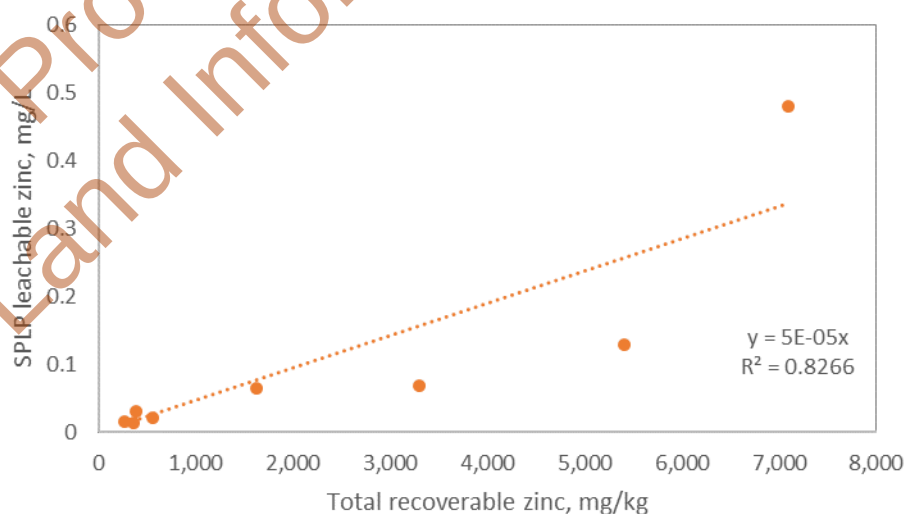


Figure 8: SPLP leachable soil zinc around buildings with high-lead paints

5.5.5 Area I

The soil sampling results are summarised in the table below, while the sampling locations are shown in Figures NBA02-03. The laboratory certificates are shown in Appendices C.

The TP50, 56 and 57 sampling found:

- Two topsoil samples from TP50 and TP56 contained heavy metals at above background levels but well within adopted site-specific remedial standards, while low level PAH concentrations were also found. Asbestos was found in TP56 at 0.003% w/w, exceeding the site-specific remedial standards.
- Fill samples from TP50 (0.25-0.35m, 0.45-0.55m) and TP57 (0.75-0.85m, 1.45-1.55m) also contained above background heavy metal concentrations but within site specific remedial standards, while low level PAH concentrations were also found. Asbestos was detected at <0.001% w/w in both TP50 samples.

The additional TPD samples (0-0.4m depth) found above background heavy metal concentrations but within site specific remedial standards, while low level PAH concentrations were also found. Asbestos was detected in three samples at <0.001% w/w (TPD04 and TPD08 and at 0.005% w/w (TPD03), with the latter exceeding the site-specific standard.

Proactively Released by
Land Information New Zealand

Table 5: Summary of Sampling Results – Area I – Testpit 50, 56 and 57 Results

Former Tokanui Psychiatric Hospital Closed Landfill: Area I – Testpit 50, 56 and 57 Results											
Sample Date	Background Concentrations ¹	Site Specific Remedial Standards - Rural Residential ^{2,3}	Site Specific Remedial Standards - Managed ^{2,3}	Waste Acceptance Criteria	20-Apr-23						
Sample Name				WRC Cleanfill Criteria	TP50	TP56	TP50	TP50	TP57	TP57	TP56
Sample Depth (m)					0.0m-0.1m	0.0m-0.1m	0.25-0.35m	0.45-0.55m	0.75-0.85m	1.45-1.55m	2.25-2.35m
Lab Number					3257173.26	3257173.34	3257173.27	3257173.28	3257173.36	3257173.37	3257173.35
Soil Strata Type											
Heavy Metals (mg/kg dry weight)	95% upper limit for background (mg/kg)				1	1	4	4	4	4	5
Arsenic	6.8	9	70	17	5	<u>8</u>	5	5	6	5	6
Boron	6.7	NS	NS	15	< 20	< 20	< 20	<u>30</u>	< 20	< 20	< 20
Cadmium	0.22	0.9	10	0.8	0.14	<u>0.4</u>	0.14	0.18	<u>0.23</u>	0.13	<u>0.57</u>
Chromium	30	150	150	56	12	13	15	13	18	14	11
Copper	25	280	280	120	<u>33</u>	<u>42</u>	<u>35</u>	<u>36</u>	<u>141</u>	<u>40</u>	<u>46</u>
Lead	20	120	460	78	<u>34</u>	<u>27</u>	<u>34</u>	<u>57</u>	<u>66</u>	<u>47</u>	<u>24</u>
Nickel	7.6	NS	NS	33	<u>8</u>	<u>6</u>	<u>8</u>	<u>13</u>	<u>8</u>	6	6
Zinc	53	350	450	175	<u>55</u>	<u>97</u>	<u>78</u>	<u>83</u>	<u>86</u>	<u>74</u>	<u>155</u>
PAHs											
BaP (Eq) NES	ND	6	35	2	<u>0.48</u>	< 0.035*	<u>0.33</u>	<u>0.58</u>	<u>0.193</u>	<u>0.98</u>	< 0.043
Asbestos (SQ)											
AF/FA	ND	< 0.001	< 0.001	ND	ND	0.003	< 0.001*	< 0.001*	ND	ND	ND
% ACM	ND	< 0.01	< 0.01		ND	ND	ND	ND	ND	ND	ND

Note:

* = Residual concentrations detected

- Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data, sourced from: <https://www.waikatoregion.govt.nz/services/regional-services/waste-hazardous-substances-and-contaminated-sites/contaminated-sites/natural-background-concentrations/>
- Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated February 2024
- BRANZ 2017 Asbestos in Soil guidelines of 0.01% w/w % ACM or 0.001% w/w for % FA & AF fraction for Residential sites (Residential guidelines applied to assess risk to Remedial workers)

Underlined: Above background concentrations

RED: Exceeded SSRA Rural Residential

BOLD: Exceeded SSRA Managed

ND: Not detected

NL: No limit

NS: Not stated

- Not tested for

Above cleanfill acceptance criteria

Soil Strata Type

- | | |
|---|--|
| 1 | Topsoil |
| 2 | Landfill cap |
| 3 | Interface of landfill cap and mixed fill |
| 4 | Mixed Fill |
| 5 | Interface of mixed fill and natural ground |
| 6 | Natural ground |

J:\33 series\33097 LINZ Tokanui Hospital\Intrusive Investigation\Results\Useful

Table 5: Summary of Sampling Results – Area I – TPD Results

Former Tokanui Psychiatric Hospital Closed Landfill: Area I – TPD Results													
Sample Date	Background Concentrations ¹	Site Specific Remedial Standards - Rural Residential ^{2,3}	Site Specific Remedial Standards - Managed ^{2,3}	Waste Acceptance Criteria	12/2/24 - 16/2/24								
Sample Name				WRC Cleanfill Criteria	TPD 01	TPD 02	TPD 03	TPD 04	TPD 05	TPD 06	TPD 07	TPD 08	TPD 09
Sample Depth (m)					0 - 0.04	0 - 0.04	0 - 0.04	0 - 0.04	0 - 0.04	0 - 0.04	0 - 0.04	0 - 0.04	0 - 0.04
Lab Number					Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097	Q-00618/33097
Soil Strata Type													
Heavy Metals (mg/kg dry weight)	95% upper limit for background (mg/kg)				1	1	1	1	1	1	1	1	1
Arsenic	6.8	9	70	17	6	8	6	5	5	4	5	6	6
Boron	6.7	NS	NS	15	-	-	-	-	-	-	-	-	-
Cadmium	0.22	0.9	10	0.8	0.19	0.21	0.21	0.18	0.11	<0.10	0.3	0.28	0.28
Chromium	30	150	150	56	15	20	16	17	20	18	16	12	19
Copper	25	280	280	120	39	44	43	43	52	47	43	36	58
Lead	20	120	460	78	19.3	21	35	51	35	28	28	23	24
Nickel	7.6	NS	NS	33	8	7	8	12	11	9	8	7	10
Zinc	53	350	450	175	77	89	78	101	73	63	230	106	98
PAHs													
BaP (Eq) NES	ND	6	35	2	<0.034	<0.036	0.043	0.39	0.28	0.182	0.064	0.06	<0.033
Asbestos (SQ)				ND									
AF/FA	ND	< 0.001	< 0.001		ND	ND	0.005	<0.001*	ND	ND	ND	<0.001*	ND
% ACM	ND	< 0.01	< 0.01		ND	ND	<0.01	<0.01	ND	ND	ND	<0.01	ND

Note:

* = Residual concentrations detected

1. Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data, sourced from: <https://www.waikatoregion.govt.nz/services/regional-services/waste-hazardous-substances-and-contaminated-sites/contaminated-sites/natural-background-concentrations/>

2. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated February 2024

3. BRANZ 2017 Asbestos in Soil guidelines of 0.01% w/w % ACM or 0.001% w/w for % FA & AF fraction for Residential sites (Residential guidelines applied to assess risk to Remedial workers)

Underlined: Above background concentrations

RED: Exceeded SSRA Rural Residential

BOLD: Exceeded SSRA Managed

ND: Not detected

NL: No limit

NS: Not stated

- Not tested for

Above cleanfill acceptance criteria

Soil Strata Type

1	Topsoil
2	Landfill cap
3	Interface of landfill cap and mixed fill
4	Mixed Fill
5	Interface of mixed fill and natural ground
6	Natural ground

5.5.6 Culvert 2 Embankment

The soil sampling results are summarised in the table below, while the sampling locations are shown in Figures NBA04. The laboratory certificates are shown in Appendices C.

Embankment fill testing for contamination found that all samples complied with site specific remedial standards. Most samples were within or slightly above background levels, although Benzo-a-pyrene equivalent (BAP) was detected in one sample at 5.4mg/kg and asbestos was detected at one location at <0.001% w/w, adjacent to where an asbestos pipe was found.

Proactively Released by
Land Information New Zealand

Table 6: Summary of Sampling Results – Culvert 2 Embankment

Former Tokanui Psychiatric Hospital: Culvert 2 Embankment Testing																
Sample Date	Background Concentrations ¹	Site Specific Remedial Standards - Rural Residential ^{2,3}	Site Specific Remedial Standards - Managed ^{2,3}	Waste Acceptance Criteria	12/2/24 - 16/2/24											
Sample Name					ETP01	ETP01	ETP02	ETP03	ETP03	ETP04	ETP04	ETP04	ETP04	ETP05	ETP05	ETP05
Sample Depth (m)				0-0.15	0.1-0.3	0.1-0.5	0-0.15	0.6-1.4	0-0.15	0.1-0.5	1.5-2.5	2.5-3.5	0.15-0.30	0.3-1.0	1.0-2.0	2.0-3.0
Lab Number				Q-00618/33097	3482767.1	3482767.2	Q-00618/33097	3482767.2	Q-00618/33097	3482767.2	3482767.2	3482767.3	Q-00618/33097	3482767.3	3482767.3	3482767.3
Heavy Metals	95% upper limit for background (mg/kg)			WRC Cleanfill Criteria												
(mg/kg dry weight)																
Arsenic	6.8	9	70	17	-	3	4	-	6	-	5	2	< 2	-	5	3
Cadmium	0.22	0.9	10	0.8	-	< 0.10	< 0.10	-	< 0.10	-	< 0.10	< 0.10	< 0.10	-	< 0.10	< 0.10
Chromium	30	150	150	56	-	10	18	-	16	-	18	8	6	-	14	10
Copper	25	280	280	120	-	15	24	-	<u>39</u>	-	25	9	10	-	<u>33</u>	13
Lead	20	120	460	78	-	15.7	17	-	19.8	-	16.3	14.8	13.3	-	18.5	18.8
Nickel	7.6	NS	NS	33	-	6	<u>11</u>	-	<u>8</u>	-	<u>11</u>	3	3	-	<u>9</u>	5
Zinc	53	350	450	175	-	46	<u>58</u>	-	<u>54</u>	-	<u>62</u>	42	26	-	<u>57</u>	<u>65</u>
OCPs																
Total DDT	-	-	-	ND	-	< 2	< 2	-	< 2	-	< 2	< 2	< 2	-	< 2	< 2
Dieldrin	-	-	-	ND	-	< 0.5	< 0.5	-	< 0.5	-	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5
PAHs																
BAP Eq	ND	6	35	2	-	< 1.3	< 1.3	-	< 1.3	-	< 1.3	< 1.3	< 1.3	-	<u>5.4</u>	< 1.3
Asbestos (S/Q)			-		ND	-	-	ND	-	ND	-	-	-	ND	-	-
AF/FA	ND	< 0.001	< 0.001	ND	ND	-	-	ND	-	ND	-	-	-	ND	-	-
% ACM	ND	< 0.01	< 0.01		ND	-	-	ND	-	ND	-	-	-	-	ND	-
Refer geotech notes below					-	-	-	-	-	-	-	-	-	-	A	B

Former Tokanui Psychiatric Hospital: Culvert 2 Embankment Testing																
Sample Date	Background Concentrations ¹	Site Specific Remedial Standards - Rural Residential ^{2,3}	Site Specific Remedial Standards - Managed ^{2,3}	Waste Acceptance Criteria	12/2/24 - 16/2/24											
Sample Name				ETP06	ETP06	ETP06	ETP07	ETP07	ETP07	ETP07	ETP08	ETP08	ETP09	ETP09		
Sample Depth (m)				0.15-0.3	0.3-1.0	2.0-2.6	0.15-0.30	0.3-1.0	1.5-2.2	2.7-3.7	0.15-0.30	1.0-2.0	0.15-0.3	0.3-0.7		
Lab Number				Q-00618/33097	3482767.31	3482767.33	Q-00618/33097	3482767.35	3482767.36	3482767.38	Q-00618/33097	3482767.40	Q-00618/33097	3482767.42		
Heavy Metals (mg/kg dry weight)	95% upper limit for background (mg/kg)															
Arsenic	6.8	9	70	17	-	6	3	-	4	6	3	-	3	-	4	
Cadmium	0.22	0.9	10	0.8	-	< 0.10	< 0.10	-	< 0.10	0.25	< 0.10	-	< 0.10	-	< 0.10	
Chromium	30	150	150	56	-	20	7	-	18	10	8	-	8	-	12	
Copper	25	280	280	120	-	52	10	-	44	33	12	-	16	-	28	
Lead	20	120	460	78	-	19.9	17.6	-	17.8	26	17.5	-	19.8	-	22	
Nickel	7.6	NS	NS	33	-	10	4	-	9	6	4	-	4	-	7	
Zinc	53	350	450	175	-	64	39	-	62	76	43	-	53	-	67	
OCPs																
Total DDT	-	-	-	ND	-	< 2	< 2	-	< 2	< 2	< 2	-	< 2	-	< 2	
Dieldrin	-	-	-	ND	-	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	
PAHs																
BAP Eq	ND	6	35	2	-	< 1.3	< 1.3	-	< 1.3	< 1.3	< 1.3	-	< 1.3	-	< 1.3	
Asbestos (S/Q)			-		Chrysotile (White Asbestos) Detected	-	-	ND	-	-	-	ND	-	ND	-	
AF/FA	ND	< 0.001	< 0.001	ND	< 0.001*	-	-	ND	-	-	-	ND	-	ND	-	
% ACM	ND	< 0.01	< 0.01		< 0.01	-	-	ND	-	-	-	ND	-	ND	-	
Refer geotech notes below					-	C	C	-	D	-	-	-	-	-	-	

* = Residual concentrations detected

1. Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data, sourced from: <https://www.waikatoregion.govt.nz/services/regional-services/waste-hazardous-substances-and-contaminated-sites/contaminated-sites/natural-background-concentrations/>

2. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated Feburary 2024.

3. BRANZ 2017 Asbestos in Soil guidelines of 0.01% w/w % ACM or 0.001% w/w for % FA & AF fraction for Residential sites (Residential guidelines applied to assess risk to Remedial workers)

Underlined:	Above background concentrations	Supplementary Geotech Log Notes A. Suspected coal tar, associated with basecourse from geotech log B. ETP05 (1.4-2.4m) - minor construction debris, including concrete/brick fragments C. ETP06 (1.4-2.0m): trace construction debris,, including concrete/burnt debris + 350dia asbestos pipe through embankment (1.8-2.2m) D. ETP07 (1.6-2.2m) abundant (50%) constructoin debris including burnt wood, metal and concrete (refer Geotech memo 65547, 4 March 2024 for further details)
RED:	Exceeded SSRA Rural Residential	
BOLD:	Exceeded SSRA Managed	
ND:	Not detected	
-	Not tested for	
	Above cleanfill acceptance criteria	

5.5.7 Other Areas

The sampling results for two other areas tested by others have been included in this report as some remediation works are required in each area. These are the Agricultural area in the north eastern part of the site and the “demolished structure” area in the south eastern part of the site. Sampling results are included in table 7 and 8 below, while the sampling locations are shown in Figures NBA06 & NBA07.

The Agricultural Area sampling results have been analysed against the Site-Specific Standards. Arsenic and/or Lead was detected above Site Specific Rural Residential standard in 14 out of the 42 samples. One sample (B35 HA01) detected Lead exceeding the Site-Specific Managed Standards.

The results within the “demolished structure” area have been analysed against the Site-Specific Standards. 2 out of the 8 samples exceed the Site Specific Rural Residential standard, and 1 of these 2 exceeds the Specific Managed Standards for lead (DS02 TP03).

Proactively Released by
Land Information New Zealand

Table 7: Summary of Sampling Results – Agricultural Area

[illegible]

Former Tokanui Psychiatric Hospital: Agricultural Area Soil Sampling															
Sample Date	Background Concentrations ¹	Site-specific Rural Residential Remedial Standards for Tokanui ²	Site-Specific Managed Remedial Standards for Tokanui ²	Waste Acceptance Criteria		7-Jun-23									
Sample Name						B35 HA01	B35 HA01	B35 TP01	B35 TP01	B35 TP02	B35 TP02	B35 TP04	B35 TP04	B35 TP05	B35 TP05
Sample Depth (m)				0.1	0.5	0.1	0.5	0.1	0.5	0.1	0.5	0.1	0.5		
Lab Number				3299078.179	3299078.18	3299078.22	3299078.23	3299078.25	3299078.26	3299078.31	3299078.32	3299078.34	3299078.35		
Heavy Metals															
(mg/kg dry weight)				95% upper limit for background (mg/kg)			WRC Cleanfill Criteria	Hampton Downs landfill							
Arsenic	6.8	9	70	17	100	11	3	3	6	2	10	5	5	19	7
Boron	6.7	NS	NS	15	500	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Cadmium	0.22	0.9	10	0.8	20	0.5	0.1	0.1	0.1	0.16	0.13	0.1	0.17	0.1	0.1
Chromium	30	150	150	56	100	14	7	8	8	82	13	7	9	5	11
Copper	25	280	280	120	200	57	12	14	9	70	22	13	19	9	10
Lead	20	120	460	78	200	630	54	29	21	28	21	30	35	69	23
Mercury	0.23	3	3	1	4	0.54	0.1	0.1	0.1	0.19	0.14	0.1	0.18	0.1	0.1
Nickel	7.6	400	NS	33	200	7	3	5	4	250	13	5	4	2	4
Zinc	53	350	450	175	500	260	43	30	29	103	65	66	59	53	37
Asbestos (SQ)				ND	Accepted					ND	ND	ND	ND	ND	
AF/FA	ND	< 0.001	< 0.001			-	-	-	-						
% ACM	ND	< 0.01	< 0.01			-	-	-	-						

Former Tokanui Psychiatric Hospital: Agricultural Area Soil Sampling																
Sample Date	Background Concentrations ¹	Site-specific Rural Residential Remedial Standards for Tokanui ²	Site-Specific Managed Remedial Standards for Tokanui ²	Waste Acceptance Criteria		8-Jun-23										
Sample Name						HT TP25	HT TP25	HT TP27	HT TP27	HT TP27	HT TP28	HT TP29	HT TP29	HT TP30	HT TP30	HT TP31
Sample Depth (m)						0.2	1.2	0.1	0.5	0.7	0.1	0.1	0.5	0.1	0.5	0.1
Lab Number						3209697_28	3209697_30	3209697_31	3209697_32	3209697_33	3209697_35	3299078.133	3299078.134	3299078.136	3299078.137	3299078.139
Heavy Metals (mg/kg dry weight)																
Arsenic	6.8	9	70	17	100	<u>11</u>	2	<u>7</u>	3	3	4	<u>7</u>	3	<u>18</u>	4	<u>7</u>
Boron	6.7	NS	NS	15	500	-	-	-	-	-	< 20	< 20	<u>79</u>	< 20	<u>25</u>	< 20
Cadmium	0.22	0.9	10	0.8	20	0.22	0.1	0.14	0.1	0.1	0.1	<u>0.34</u>	0.1	<u>0.39</u>	0.1	0.19
Chromium	30	150	150	56	100	11	7	13	8	6	9	9	9	9	9	11
Copper	25	280	280	120	200	<u>109</u>	10	<u>28</u>	9	9	<u>27</u>	<u>32</u>	8	<u>39</u>	13	<u>26</u>
Lead	20	120	460	78	200	<u>51</u>	19.3	<u>83</u>	18.3	<u>22</u>	<u>43</u>	<u>159</u>	19.8	<u>145</u>	<u>21</u>	<u>83</u>
Mercury	0.23	3	3	1	4	-	-	-	-	-	-	0.14	0.1	0.12	0.1	0.1
Nickel	7.6	400	NS	33	200	-	-	-	-	-	-	7	4	<u>16</u>	4	<u>11</u>
Zinc	53	350	450	175	500	<u>97</u>	28	<u>81</u>	31	44	50	<u>148</u>	33	<u>121</u>	38	<u>123</u>
Asbestos (SQ)																
AF/FA	ND	< 0.001	< 0.001	ND	Accepted	-	-	-	-	-	-	ND	-	-	-	-
% ACM	ND	< 0.01	< 0.01			-	-	-	-	-	-	-	-	-	-	-

Former Tokanui Psychiatric Hospital: Agricultural Area Soil Sampling																
Sample Date	Background Concentrations ¹	Site-specific Rural Residential Remedial Standards for Tokanui ²	Site-Specific Managed Remedial Standards for Tokanui ²	Waste Acceptance Criteria		14-Jun-23										
Sample Name						DIP HA01	DIP HA02	DIP HA03	DIP TP01	DIP TP02	DIP TP03	HT Composite G (G1 - G3)	HT Composite G (G1 - G3)	HT Composite H (H1 - H3)	HT Composite H (H1 - H3)	
Sample Depth (m)				WRC Cleanfill Criteria	Hampton Downs landfill	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.5	0.1	0.5	
Lab Number						3299080_96	3299080_97	3299080_98	3209697_19	3209697_22	3209697_25	3299078.351	3299078.352	3299078.353	3299078.354	
Heavy Metals (mg/kg dry weight)																
Arsenic	6.8	9	70	17	100	<u>9</u>	<u>12</u>	<u>16</u>	<u>11</u>	<u>7</u>	<u>14</u>	<u>8</u>	5	<u>8</u>	5	
Boron	6.7	NS	NS	15	500	-	-	-	-	-	-	<u>23</u>	< 20	<u>360</u>	< 20	
Cadmium	0.22	0.9	10	0.8	20	<u>0.43</u>	<u>0.5</u>	<u>0.35</u>	<u>0.27</u>	<u>0.27</u>	<u>0.23</u>	<u>0.47</u>	<u>0.23</u>	<u>0.36</u>	< 0.10	
Chromium	30	150	150	56	100	12	10	15	14	8	15	11	9	11	9	
Copper	25	280	280	120	200	<u>50</u>	<u>75</u>	<u>72</u>	<u>54</u>	<u>55</u>	<u>60</u>	<u>64</u>	<u>28</u>	<u>42</u>	16	
Lead	20	120	460	78	200	<u>88</u>	<u>104</u>	<u>85</u>	<u>65</u>	<u>80</u>	<u>59</u>	<u>56</u>	<u>23</u>	<u>57</u>	<u>23</u>	
Mercury	0.23	3	3	1	4	-	-	-	-	-	-	<u>0.51</u>	0.15	<u>0.3</u>	0.1	
Nickel	7.6	400	NS	33	200	-	-	-	-	-	-	<u>10</u>	6	<u>19</u>	4	
Zinc	53	350	450	175	500	<u>220</u>	<u>164</u>	<u>160</u>	<u>134</u>	<u>97</u>	<u>95</u>	<u>157</u>	<u>70</u>	<u>123</u>	35	
Asbestos (SQ)				ND	Accepted											
AF/FA	ND	< 0.001	< 0.001			ND	ND	ND	-	-	-	-	-	-	-	-
% ACM	ND	< 0.01	< 0.01			-	-	-	-	-	-	-	-	-	-	

* = Residual concentrations detected

1. Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data, sourced from: <https://www.waikatoregion.govt.nz/services/regional-services/waste-hazardous-substances-and-contaminated-sites/contaminated-sites/natural-background-concentrations/>

2. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated February 2024

Underlined: Above background concentrations

RED: Exceeded SSRA Rural Residential

BOLD: Exceeded SSRA Managed

NS: Not Stated

ND: Not detected

- Not tested for

Yellow: Above cleanfill acceptance criteria

Black: Above Hampton Downs Landfill

Table 8: Summary of Sampling Results – Demolished Structure

Former Tokanui Psychiatric Hospital: Demolished Structure Soil Sampling													
Sample Date	Background Concentrations ¹	Site-specific Rural Residential Remedial Standards for Tokanui ²	Site-Specific Managed Remedial Standards for Tokanui ²	Waste Acceptance Criteria									
Sample Name						DS02 TP01	DS02 TP01	DS02 TP02	DS02 TP03	DS02 TP03	DS02 TP04	DS02 TP05	DS02 TP05
Sample Depth (m)						0.1	0.5	0.1	0.1	0.5	0.1	0.1	0.5
Lab Number						3299078.303	3299078.304	3299078.306	3299078.309	3299078.31	3299078.312	3299078.315	3299078.316
Heavy Metals (mg/kg dry weight)													
Arsenic	6.8	9	70	17	100	6	4	7	6	6	5	6	4
Boron	6.7	NS	NS	15	500	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Cadmium	0.22	0.9	10	0.8	20	<u>0.25</u>	< 0.10	0.21	<u>0.62</u>	<u>0.16</u>	<u>0.23</u>	<u>0.48</u>	< 0.10
Chromium	30	150	150	56	100	15	<u>32</u>	14	13	14	8	17	9
Copper	25	280	280	120	200	<u>51</u>	<u>70</u>	<u>45</u>	<u>55</u>	<u>56</u>	20	<u>50</u>	<u>28</u>
Lead	20	120	460	78	200	<u>47</u>	<u>21</u>	<u>25</u>	490	<u>71</u>	<u>36</u>	240	<u>19.9</u>
Mercury	0.23	3	3	1	4	0.27	0.43	0.19	0.11	0.1	0.15	0.14	0.1
Nickel	7.6	400	NS	33	200	<u>8</u>	<u>14</u>	<u>8</u>	7	<u>11</u>	4	7	6
Zinc	53	350	450	175	500	<u>94</u>	<u>83</u>	<u>72</u>	200	290	<u>75</u>	<u>109</u>	30
Asbestos (SQ)				ND	Accepted	ND	ND	ND	ND	ND	ND	ND	ND
AF/FA	ND	< 0.001	< 0.001										
% ACM	ND	< 0.01	< 0.01										

* = Residual concentrations detected

1. Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data, sourced from: <https://www.waikatoregion.govt.nz/services/regional-services/waste-hazardous-substances-and-contaminated-sites/contaminated-sites/natural-background-concentrations/>

2. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated Feburary 2024

Underlined: Above background concentrations

RED: Exceeded SSRA Rural Residential

BOLD: Exceeded SSRA Managed

NS: Not Stated

ND: Not detected

- Not tested for

Yellow: Above cleanfill acceptance criteria

Black: Above Hampton Downs Landfill

6 WWTP INVESTIGATIONS

This section is included in this report, as these results have not been captured in other reports prepared for the resource consent application.

6.1 DSI – WSP (OCT 2019)

WSP undertook a Detailed Site Investigation (DSI) in October 2019 of the WWTP prior to its decommissioning and installation of a Wastewater Pump Station within the WWTP compound. Their desktop study concluded several current or historical HAIL activities have occurred within or adjacent to the Hospital WWTP.

They undertook soil sampling at 6 locations within the Tokanui Hospital WWTP, at two depths varying between 0.05 – 1.2m. Samples were analysed for metals, asbestos and Volatile Organic Compounds (VOCs) and assessed against the Waikato regional background concentrations and NESCS Commercial/Industrial outdoor worker (unpaved) Land use criteria. They found that metals (Arsenic, Copper, Cadmium, Lead, Nickel and Zinc) exceeded that background concentrations while asbestos & VOCs were all below the laboratory detection limit. No samples exceeded the NESCS Commercial/Industrial outdoor worker (unpaved) Land use Criteria.

For this report, these results have been reassessed against the adopted Site Specific Rural Residential Remedial Standard and Managed Remedial Standard. This assessment found that only one sample (TH06, 0.1m) exceeded the Site Specific Rural Residential Remedial Standard for Arsenic (15mg/kg concentration versus 9mg/kg standard). No samples exceeded the Managed Remedial Standard. One or more heavy metals were detected above the background concentrations in 10 out of the 12 samples.

6.2 DSI FACTUAL REPORT – GHD (JANUARY 2024)

GHD undertook DSI field work across the hospital site during March-September 2023. This included collecting 8 samples from 4 locations at two depths (0 – 0.1m and 0.4 -0.5m) within the former WWTP compound. The samples were analysed for a number of parameters including metals, Semi Volatile Organic Compounds (SVOC) and asbestos.

Reassessment of these results against the Site Specific Rural residential and managed remedial standards found that while 5 out of the 8 samples within the WWTP area exceeded the background concentration for one or more metals, all were within both remedial standards. All other parameters tested for were below laboratory detection limit.

Table 9: Summary of Sampling Results - Waste Water Treatment Plant

Former Tokanui Psychiatric Hospital: WSP Waste Water Treatment Plant Soil Sampling																
Sample Date	Background Concentrations ¹	Site-specific Rural Residential Remedial Standards for Tokanui ²	Site-Specific Managed Remedial Standards for Tokanui ²	Waste Acceptance Criteria		31-Oct-19										
Sample Name						TH01	TH01	TH02	TH02	TH03	TH03	TH04	TH04	TH05	TH05	TH06
Sample Depth (m)						0.05	1.2	0.05	1.1	0.05	1.1	0.1	1.1	0.1	0.9	0.1
Lab Number						19-38083-7	19-38083-8	19-38083-9	19-38083-10	19-38083-11	19-38083-12	19-38083-15	19-38083-16	19-38083-17	19-38083-18	19-38083-19
Heavy Metals (mg/kg dry weight)																
Arsenic	6.8	9	70	17	100	5.8	2.9	4	2.2	3.9	1.6	3.4	1.4	12	3.6	<u>15</u>
Boron	6.7	NS	NS	15	500	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.22	0.9	10	0.8	20	0.0071	0.028	0.2	0.037	0.11	0.03	0.098	0.028	<u>0.25</u>	0.036	<u>0.3</u>
Chromium	30	150	150	56	100	11	8.5	26.6	9.5	24.9	8.6	8.8	8.7	10	12	11
Copper	25	280	280	120	200	9.26	20.8	18.4	20.8	19.1	18.1	16.8	18.1	<u>73.6</u>	22	<u>84.6</u>
Lead	20	120	460	78	200	12.9	18.2	<u>20.6</u>	18.6	<u>19.7</u>	15.7	<u>22.3</u>	15.8	<u>53.3</u>	<u>22.6</u>	<u>73.5</u>
Mercury	0.23	3	3	1	4	0.098	0.068	0.19	0.073	0.09	0.056	0.13	0.057	0.2	0.094	0.18
Nickel	7.6	400	NS	33	200	4.7	5.54	<u>12.2</u>	6.21	<u>12.1</u>	5.4	5.06	5.19	5.79	6.27	7.24
Zinc	53	350	450	175	500	<u>83.8</u>	52.2	<u>94.1</u>	<u>62.1</u>	<u>77</u>	<u>58.9</u>	<u>70.8</u>	<u>54.7</u>	<u>91.4</u>	50	<u>105</u>
Asbestos (SQ)				ND	Accepted											
AF/FA	ND	< 0.001	< 0.001			ND	-	ND	-	ND	-	ND	-	ND	-	ND
% ACM	ND	< 0.01	< 0.01			ND	-	ND	-	ND	-	ND	-	ND	-	ND

Former Tokanui Psychiatric Hospital: GHD Waste Water Treatment Plant Soil Sampling													
Sample Date	Background Concentrations ¹	Site-specific Rural Residential Remedial Standards for Tokanui ²	Site-Specific Managed Remedial Standards for Tokanui ²	Waste Acceptance Criteria		13-Jun-23							
Sample Name						WWTP_TP01	WWTP_TP01	WWTP_TP02	WWTP_TP02	WWTP_TP03	WWTP_TP03	WWTP_TP04	WWTP_TP04
Sample Depth (m)						0 - 0.1	0.4 - 0.5	0 - 0.1	0.4 - 0.5	0 - 0.1	0.4 - 0.5	0 - 0.1	0.4 - 0.5
Lab Number						19-38083-7	19-38083-8	19-38083-9	19-38083-10	19-38083-11	19-38083-12	19-38083-15	19-38083-16
Heavy Metals (mg/kg dry weight)													
Arsenic	6.8	9	70	17	100	-	-	-	-	-	-	-	-
Boron	6.7	NS	NS	15	500	<20	<20	<20	<20	<20	<20	<20	<20
Cadmium	0.22	0.9	10	0.8	20	0.12	<0.10	0.13	<0.10	0.22	<0.10	0.1	0.13
Chromium	30	150	150	56	100	7	5	8	5	8	7	11	11
Copper	25	280	280	120	200	14	14	15	14	<u>26</u>	14	14	14
Lead	20	120	460	78	200	17.5	16.2	19.8	15.1	<u>114</u>	17.6	15.6	15.4
Mercury	0.23	3	3	1	4	<0.10	<0.10	0.11	<0.10	0.1	<0.10	<0.10	<0.10
Nickel	7.6	400	NS	33	200	4	4	5	4	5	4	<u>9</u>	<u>8</u>
Zinc	53	350	450	175	500	<u>59</u>	38	<u>57</u>	44	<u>103</u>	39	<u>78</u>	<u>81</u>
Asbestos (SQ)				ND	Accepted								
AF/FA	ND	< 0.001	< 0.001			ND	ND	ND	ND	ND	ND	ND	ND
% ACM	ND	< 0.01	< 0.01			ND	ND	ND	ND	ND	ND	ND	ND

* = Residual concentrations detected

1. Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data, sourced from: <https://www.waikatoregion.govt.nz/services/regional-services/waste-hazardous-substances-and-contaminated-sites/contaminated-sites/natural-background-concentrations/>

2. Site Specific Remedial Standards as presented in HAIL Environmental Ltd Site Specific Risk Assessment, Version 3.2, dated Feburary 2024

Underlined: Above background concentrations

RED: Exceeded SSRA Rural Residential

BOLD: Exceeded SSRA Managed

NS: Not Stated

ND: Not detected

- Not tested for

Above cleanfill acceptance criteria

7 DISCUSSION

7.1 SOIL ANALYTICAL RESULTS

7.1.1 Site Structures

The soil sampling results do not comply with the adopted Site-Specific guidelines and the NESCS guidelines. In particular:

- Asbestos fibres were detected in 17 of the 62 samples analysed.
- The concentrations of asbestos fibres detected in 9 of the samples (B20 A 0.1m, B30 A 0.1m, B30 B 0.1m, B30 B 0.3m, B30 D 0.3m, B58 C 0.1m, B63 C 0.1m, B63 C 0.3m & B75 A 0.1m) were below the site-specific remedial standard and the NESCS commercial/industrial outdoor worker (unpaved) standard.
- The concentrations of asbestos fibres detected in 7 of the samples (B30 D 0.1m, B30 E 0.1m, B56 C 0.1m, B56 C 0.3m, B63 B 0.1m, B55 D 0.1m & B55 D 0.3m) exceeded both the site-specific remedial standard and the NESCS commercial/industrial outdoor worker (unpaved) standard.
- The concentrations detected in the 7 samples mentioned above all fall within “asbestos related work” classification as stated in BRANZ (2017).
- Halo sampling confirmed elevated lead concentrations in shallow soils around buildings. Lead concentrations decreased with distance from the building and with depth in the soil. Overall, lead exceeded the site-specific rural residential remediation standard to a distance of 3 m from the building and to the base of topsoil at B2, B5, B7, B8, B11, B13, B15, B17, B18, B21, B23, B24, B27, B29, B33, B35, B37, B38, B52, B58, B59, B73 and in places around B12, B19, B55, B74 and exceeded the site-specific managed remedial standard to a distance of 1 m from the building and to a depth of 0.25 m.
- Elevated lead confirmed on the west side of B12, the east side of B19, and close to B55 may be a result of severely deteriorated lead paint on minor elements such as window frames or indicate fill material (B12), as lead distributions at these locations do not follow the general trend of decreasing away from the building and with depth.
- Halo sampling also identified elevated zinc concentrations in shallow soils around many of the buildings where lead was elevated. Similar to lead, zinc concentrations generally decreased with distance from the building and with depth in the soil.

Additionally, it is noted that leachability sampling confirmed a strong correlation between the total recoverable and the SPLP leachable lead and zinc. Trace levels of DDT were confirmed in soils in the vicinity of the gardener shed.

7.1.2 Area I

Delineation testing in Area I has found that the majority of this area comprises silts/sands with minor gravels and clay while construction and demolition debris and some asbestos contamination is present in isolated areas. Hence, the actual area/volume requiring remediation can be significantly reduced from the area shown on Figure NBA02-03.

7.1.3 Culvert 2 Embankment

Testing of the Culvert 2 embankment soils has found that the majority of these soils are suitable for reuse as backfill material within the hospital as part of the demolition works, apart from some pockets of construction and demolition waste and some asbestos pipework that can be separated out as part of the embankment removal process.

7.2 CONSENTING REQUIREMENTS & SOIL MANAGEMENT/REMEDIAL REQUIREMENTS

Consenting requirements will be presented by SLR Consulting Limited in a separate planning memorandum or report, while soil management/remedial requirements will be presented by Fraser Thomas Limited in the Remedial Action Plan (RAP).

8 CONCLUSIONS

A detailed summary of the site history and contaminated land investigations undertaken to date can be found in the report titled *'Toitū Te Whenua – Land Information New Zealand, Former Tokanui Psychiatric Hospital Demolition and Remediation, Remedial Options Report'* ('ROR') dated May 2024 and prepared by Fraser Thomas Limited and HAIL Environmental Limited. This report should be read in conjunction with the ROR.

This Addendum DSI report covers an additional soil sampling/lab testing and X-ray fluorescence spectrometry (XRF) investigation undertaken by Fraser Thomas and HAIL Environmental in February-March 2024. This investigation was undertaken to fill in gaps where there was found to be no sampling or insufficient sampling around hospital buildings, to satisfy Contaminated Land Management (CLM) Guideline requirements.

In total, 102 individual samples from 51 locations at two depths were collected around site structures (mainly buildings) across the site for semi-quantitative asbestos in soil analysis, with 51 shallow samples and 11 deeper samples tested. The soil sampling results identified asbestos fibres in 17 of the 62 samples analysed. The concentrations of asbestos fibres detected in 7 of the samples (B30 D 0.1m, B30 E 0.1m, B56 C 0.1m, B56 C 0.3m, B63 B 0.1m, B55 D 0.1m & B55 D 0.3m) exceeded both the site-specific remedial standard and the Resource Management (National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations (2011) commercial/industrial outdoor worker (unpaved) standard.

Halo sampling confirmed elevated lead concentrations in shallow soils around buildings, with concentrations decreasing with distance from the building and with depth in the soil. Lead exceeded the site-specific rural residential remediation standard to a distance of 3 m from the building and to the base of topsoil at B2, B5, B7, B8, B11, B13, B15, B17, B18, B21, B23, B24, B27, B29, B33, B35, B37, B38, B52, B58, B59, B73 and in places around B12, B19, B55, B74 and exceeded the site-specific managed remedial standard to a distance of 1m from the building and to a depth of 0.25m.

Halo sampling also identified elevated zinc concentrations in shallow soils around many of the buildings where lead was elevated. Similar to lead, zinc concentrations generally decreased with distance from the building and with depth in the soil. Leachability sampling confirmed a strong correlation between the total recoverable and the SPLP leachable lead and zinc.

Gardener shed (B59) sampling confirmed trace levels of DDT, but no further evidence of other herbicides.

During this intrusive investigation work, a number of locations were identified where potential fill pockets may be present, potentially associated with historical demolition works or former site construction activities. These pockets appeared to be relatively minor and it was decided to handle them under the accidental discovery process during site demolition works. These locations are identified as NBA (non-building areas) 1-11 on Figure NBA01.

Delineation testing in Area I has found that the majority of this area comprises silts/sands with minor gravels and clay while construction and demolition debris and some asbestos fibre and bulk material contamination is present in isolated areas.

The majority of the Culvert 2 embankment soils are suitable for reuse as backfill material within the hospital as part of the demolition works, apart from some pockets of construction and demolition waste and some asbestos pipework that can be separated out as part of the embankment removal process.

9 LIMITATIONS

We have performed our services for this project in accordance with current professional standards for an assessment of the nature and extent of any soil contamination on-site, based upon preliminary site assessment investigations and current regulatory standards for site contamination. The scope of the site assessment activities was generally in accordance with the Ministry for Environment Contaminated Land Management Guideline's (Parts 1 (2021), 2 (2011) and 5 (2021)) and the NESCS (2011). Conclusions on actual or potential contamination cannot be applied to areas outside of the site investigation. We do not assume any liability for misrepresentation or items not visible, accessible or present at the subject site during the time of the site inspection.

Copyright of this report is held by Fraser Thomas Ltd and HAIL Environmental. The professional opinion expressed herein has been prepared solely for, and is furnished to our client, Toitū Te Whenua – Land Information New Zealand, on the express condition that it will only be used for the works and the purpose for which it is intended.

No liability is accepted by this firm or by any principal, or director, or any servant or agent of this firm, in respect of its use by any other person, and any other person who relies upon any matter contained in this report does so entirely at its own risk. This disclaimer shall apply

notwithstanding that this report may be made available to any person by any person in connection with any application for permission or approval, or pursuant to any requirement of law.

Proactively Released by
Land Information New Zealand

Proactively Released by
Land Information New Zealand

Figures

TOITŪ TE WHENUA – LAND INFORMATION NEW ZEALAND

FORMER TOKANUI HOSPITAL DEMOLITION AND REMEDIATION

33097

Addendum Detailed Site Inspection

CONTAMINATED SOIL

13/11/2024



**Fraser
Thomas**

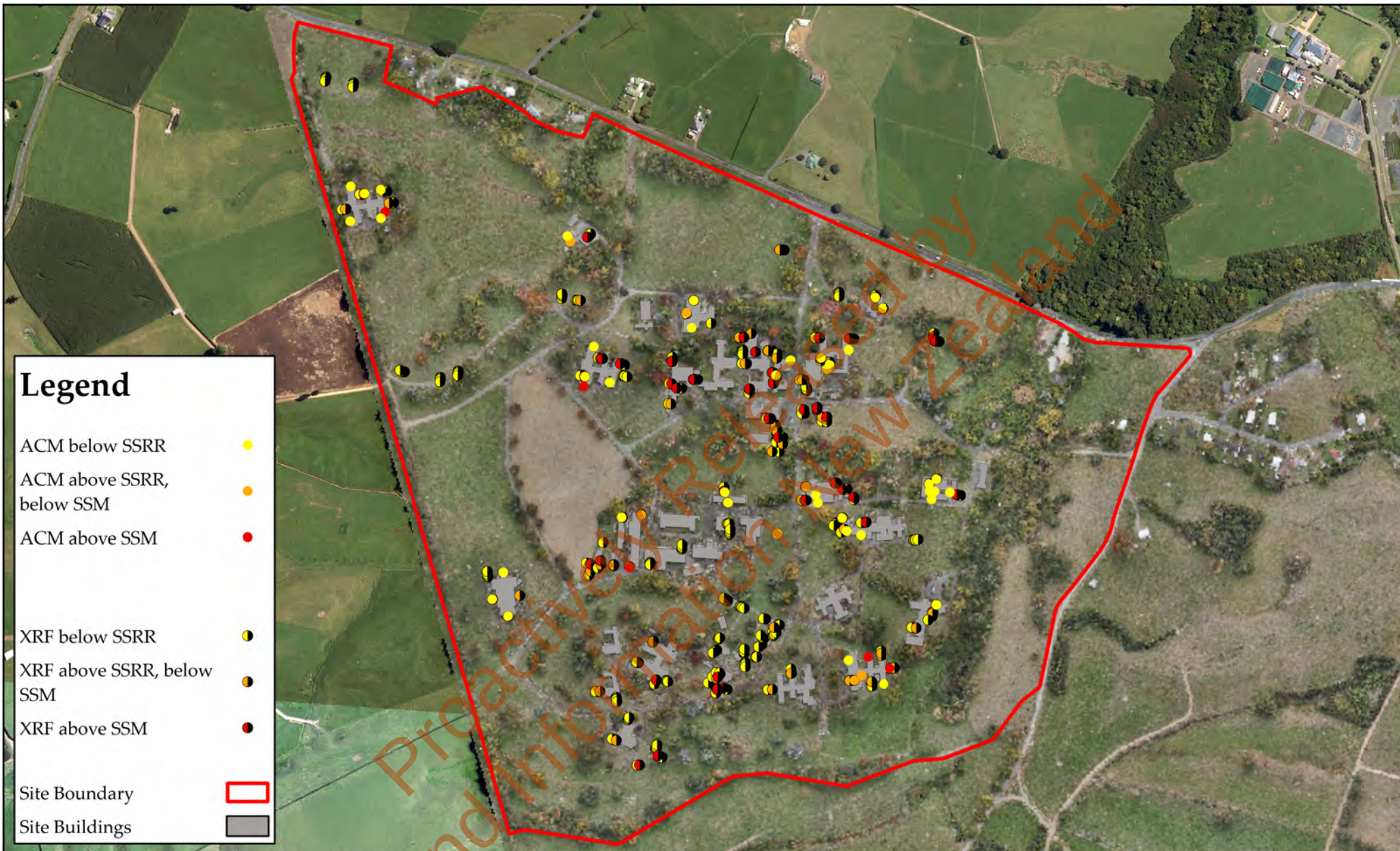
ENGINEERS • RESOURCE MANAGERS • SURVEYORS

List of Drawings

Drawing	Drawing Title	Revision	Drawing	Drawing Title	Revision
33097/F1	Site Location Plan	A	NBA01	NBA Location Plan	A
33097/F2	Additional Sample Location Plan	A	NBA02	NBA (Area 1 - Topsoil)	A
			NBA03	NBA (Area 1 - Fill)	A
33097/F2-1	B02	A	NBA04	NBA (Culvert 2 Embankment)	A
33097/F2-2	B03	A	NBA05	NBA (Former WWTP)	A
33097/F2-3	B10	A	NBA06	NBA (Agricultural Area)	A
33097/F2-4	B11	A	NBA07	NBA (Demolished Structure)	A
33097/F2-5	B12	A			
33097/F2-6	B14 + B15	A			
33097/F2-7	B19	A			
33097/F2-8	B21	A			
33097/F2-9	B23	A			
33097/F2-10	B27 + B28	A			
33097/F2-11	B26	A			
33097/F2-12	B30	A			
33097/F2-13	B33	A			
33097/F2-14	B45 + B46	A			
33097/F2-15	B47	A			
33097/F2-16	B36 - B39	A			
33097/F2-17	B48	A			
33097/F2-18	B53	A			
33097/F2-19	B59 + B60	A			
33097/F2-20	B62, B63 + B65	A			
33097/F2-21	B71	A			
33097/F2-22	B55	A			
33097/F2-23	B56	A			
33097/F2-24	B58	A			
33097/F2-25	B75	A			



Over 50 Years Fraser Thomas ENGINEERS • RESOURCE MANAGERS • SURVEYORS	Figure 1: Site Location Plan	Date: 11/11/2024 Figure Reference: 33097/ADSI/001 Drawn by: EB Reviewed by: SF Job Number: 33097 0 75 150 300 450 600 Meters	N
	Toitū Te Whenua Land Information New Zealand Addendum Detailed Site Investigation Report Former Tokanui Hospital Demolition and Remediation Project Tōkanui, Te Awamutu		



Legend

ACM below SSRR



ACM above SSRR,
below SSM



ACM above SSM



XRF below SSRR



XRF above SSRR, below
SSM



XRF above SSM



Site Boundary



Site Buildings



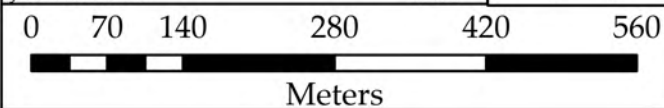
**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2: Additional Sample Location Plan

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/002
Drawn by: EB
Reviewed by: SF
Job Number: 33097





**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-1: Additional Sampling Plan - B02

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B02
Drawn by: EB
Reviewed by: SF
Job Number: 33097

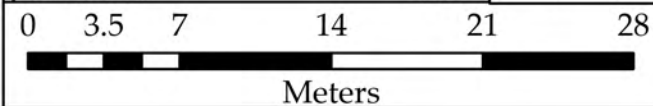






Figure 2-3: Additional Sampling Plan - B10

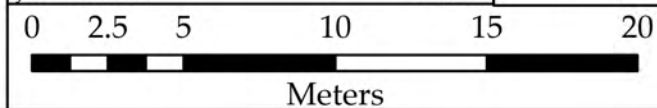




Figure 2-4: Additional Sampling Plan - B11

Toitū Te Whenua Land Information New Zealand
 Addendum Detailed Site Investigation Report
 Former Tokanui Hospital Demolition and Remediation Project
 Tokanui, Te Awamutu

Date: 11/11/2024
 Figure Reference: 33097/ADSI/B11
 Drawn by: EB
 Reviewed by: SF
 Job Number: 33097

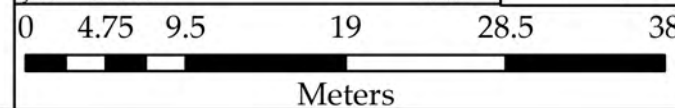




Figure 2-5: Additional Sampling Plan - B12





Figure 2-6: Additional Sampling Plan - B14 + B15







Figure 2-9: Additional Sampling Plan - B23

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tokanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B23
Drawn by: EB
Reviewed by: SF
Job Number: 33097

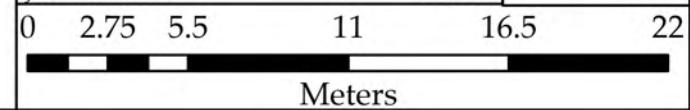




Figure 2-10: Additional Sampling Plan - B27 + B28





Legend

ACM below SSRR



ACM above SSRR,
below SSM



ACM above SSM



XRF below SSRR



XRF above SSRR, below
SSM



XRF above SSM



Site Boundary



Site Buildings



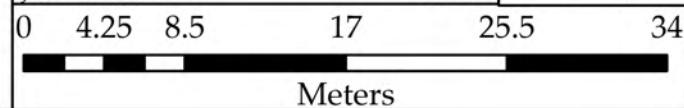
**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-11: Additional Sampling Plan - B26

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B26
Drawn by: EB
Reviewed by: SF
Job Number: 33097





**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-12: Additional Sampling Plan - B30

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B30
Drawn by: EB
Reviewed by: SF
Job Number: 33097

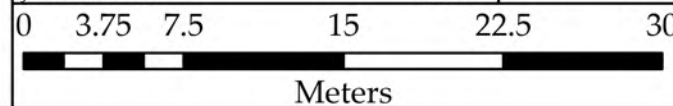




Figure 2-13: Additional Sampling Plan - B33

Toitū Te Whenua Land Information New Zealand
 Addendum Detailed Site Investigation Report
 Former Tokanui Hospital Demolition and Remediation Project
 Tokanui, Te Awamutu

Date: 11/11/2024
 Figure Reference: 33097/ADSI/B33
 Drawn by: EB
 Reviewed by: SF
 Job Number: 33097

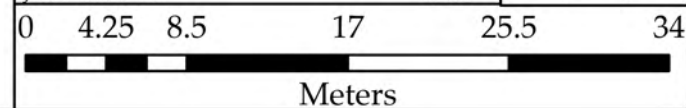


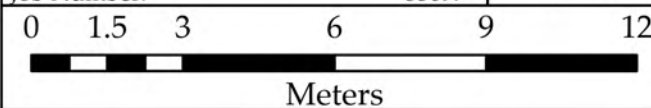




Figure 2-15: Additional Sampling Plan - B47

Toitū Te Whenua Land Information New Zealand
 Addendum Detailed Site Investigation Report
 Former Tokanui Hospital Demolition and Remediation Project
 Tokanui, Te Awamutu

Date: 11/11/2024
 Figure Reference: 33097/ADSI/B47
 Drawn by: EB
 Reviewed by: SF
 Job Number: 33097



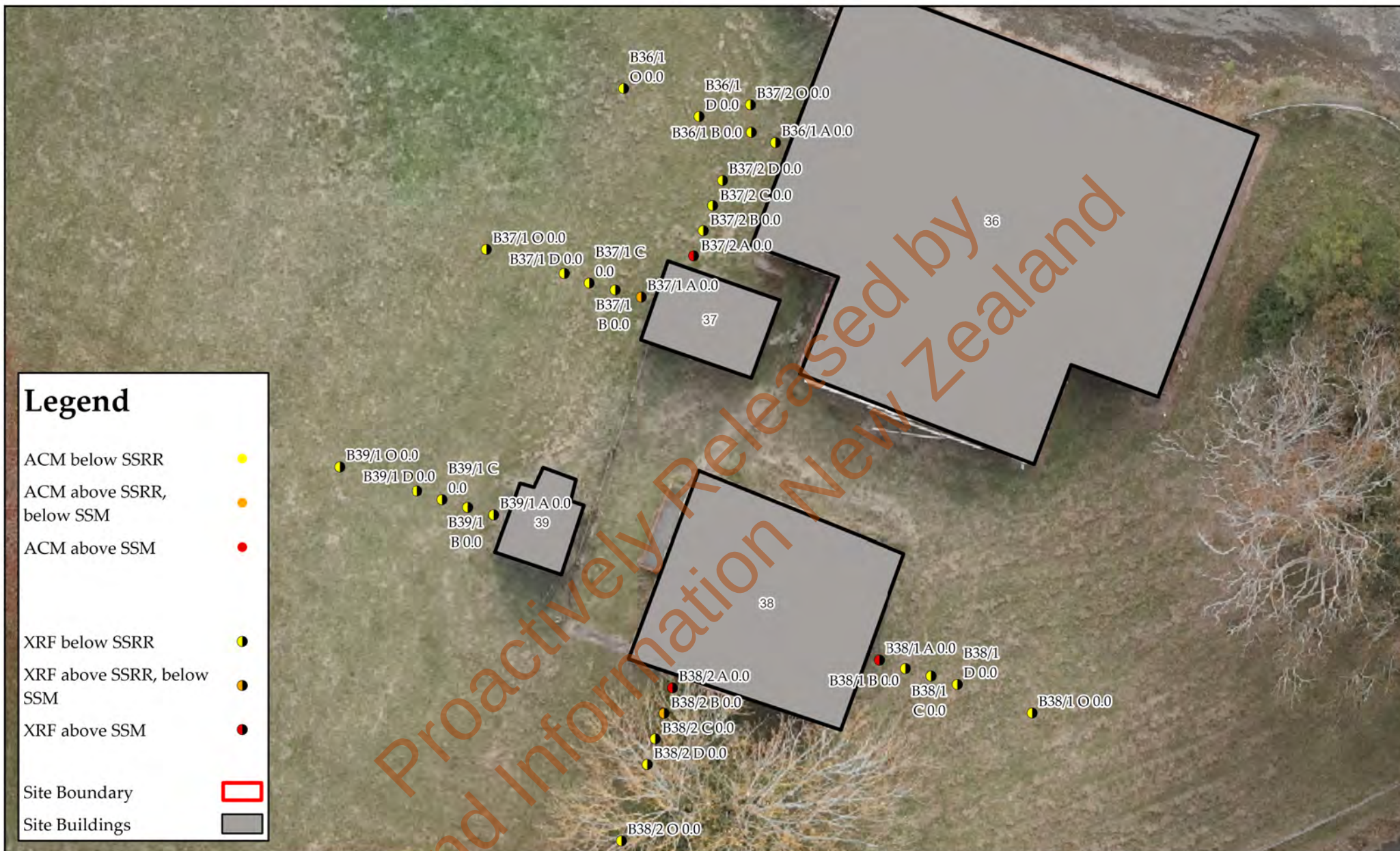
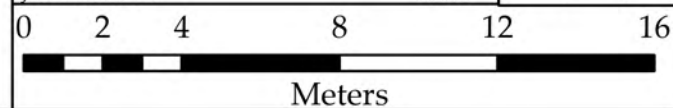


Figure 2-16: Additional Sampling Plan - B36 - B39





**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-17: Additional Sampling Plan - B48

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tokanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B48
Drawn by: EB
Reviewed by: SF
Job Number: 33097

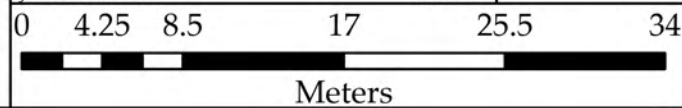




Figure 2-18: Additional Sampling Plan - B53





**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-19: Additional Sampling Plan - B59 + B60

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B59+B60
Drawn by: EB
Reviewed by: SF
Job Number: 33097

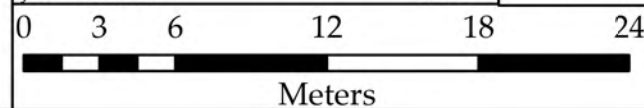




Figure 2-20: Additional Sampling Plan - B62, B63 + B65





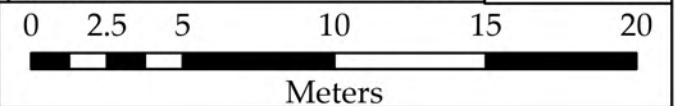
**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-21: Additional Sampling Plan - B71

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B71
Drawn by: EB
Reviewed by: SF
Job Number: 33097







Legend

ACM below SSRR



ACM above SSRR,
below SSM



ACM above SSM



XRF below SSRR



XRF above SSRR, below
SSM



XRF above SSM



Site Boundary



Site Buildings



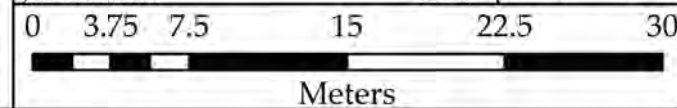
**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-23: Additional Sampling Plan - B56

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B56
Drawn by: EB
Reviewed by: SF
Job Number: 33097





Legend

- ACM below SSRR ●
- ACM above SSRR, below SSM ●
- ACM above SSM ●

- XRF below SSRR ●
- XRF above SSRR, below SSM ●
- XRF above SSM ●

- Site Boundary
- Site Buildings



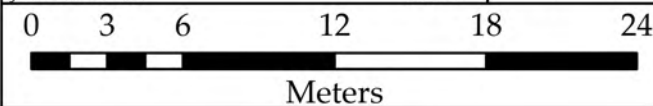
**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-24: Additional Sampling Plan - B58

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B58
Drawn by: EB
Reviewed by: SF
Job Number: 33097





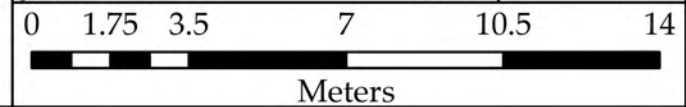
**Fraser
Thomas**

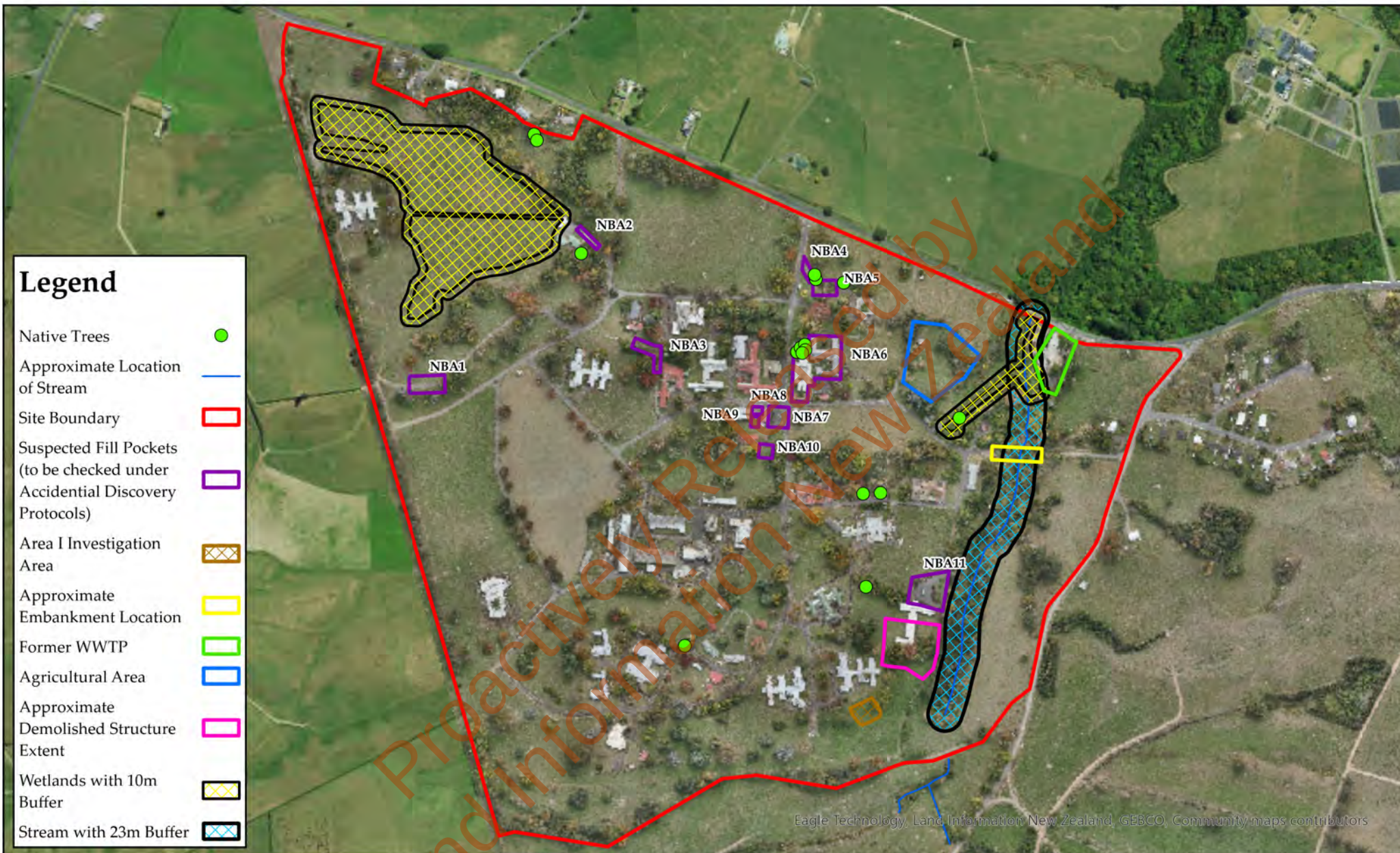
ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure 2-25: Additional Sampling Plan - B75

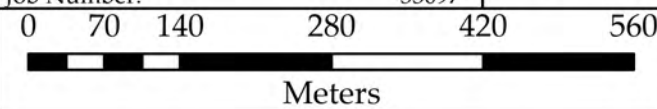
Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tōkanui, Te Awamutu

Date: 11/11/2024
Figure Reference: 33097/ADSI/B75
Drawn by: EB
Reviewed by: SF
Job Number: 33097





 Fraser Thomas ENGINEERS • RESOURCE MANAGERS • SURVEYORS	Figure NBA01: Non-Building Areas Location Plan	Date: 16/09/2024 Figure Reference: 33097/NBA01 Drawn by: AF Reviewed by: SF Job Number: 33097	
	Toitū Te Whenua Land Information New Zealand Addendum Detailed Site Investigation Report Former Tokanui Hospital Demolition and Remediation Project Tokanui		





Legend

Above SSM



Below SSRR



Area I Investigation
Area



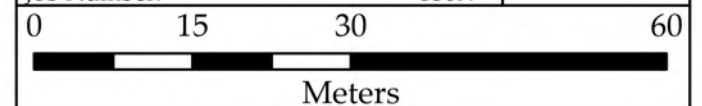
**Fraser
Thomas**

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

Figure NBA02: Visual and Intrusive Investigation Findings - NBA (Area I - Topsoil)

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tokanui

Date: 05/11/2024
Figure Reference: 33097NBA02
Drawn by: AF
Reviewed by: SF
Job Number: 33097



TPD03: Minor (5 - 12%) Construction and Demolition (C&D) material, including potential ACM observed at 0.2m, 0.6 - 0.7m and 1m depth.

TPD04: Minor (5 - 12%) C&D material, including potential ACM observed at 1.4m depth.

TPD05: Minor (5 - 12%) C&D material at 1.5m depth.

TPD06: Minor (5 - 12%) C&D material, including potential ACM observed at 0.8m depth.

TPD50: $\leq 30\%$ Construction and Demolition (C&D) material at 0.2 - 0.8m depth and $\leq 10\%$ C&D material at 0.8-1.9m depth.

TP57: ≤ 10 C&D materials at 0.1-2.0m depth, increasing to 40% C&D materials at 1.1m depth.

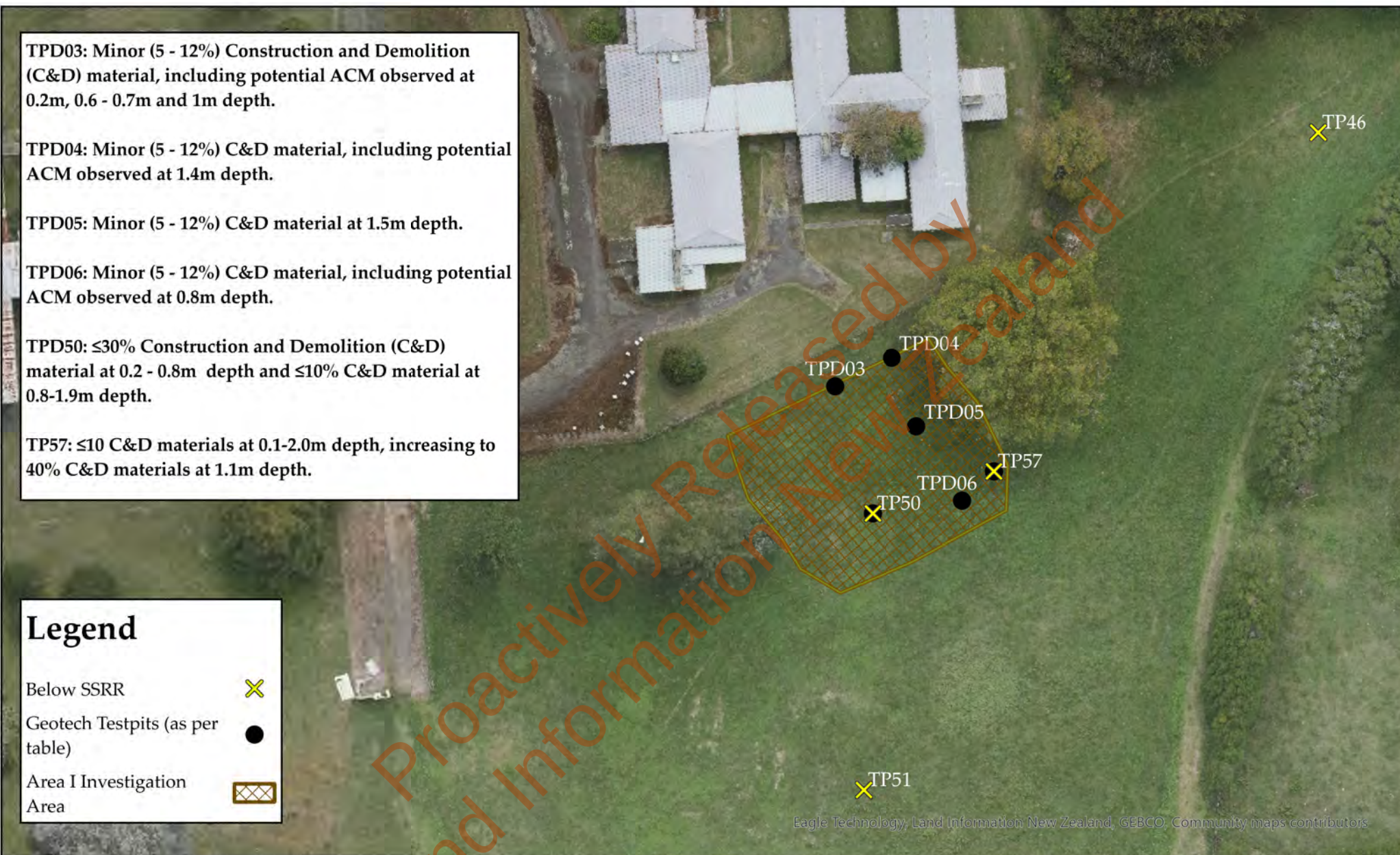
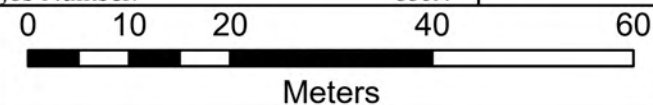
Legend

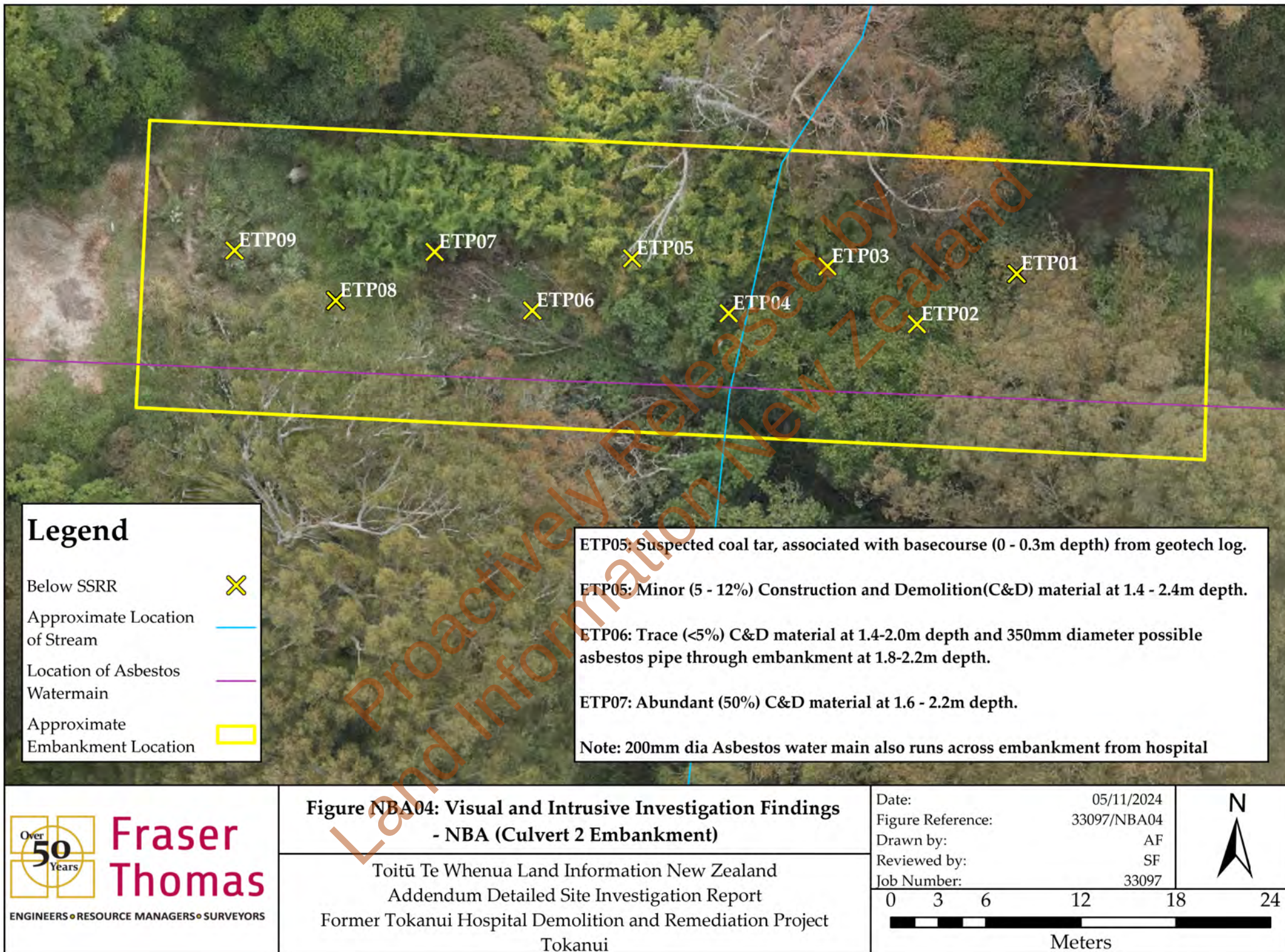
Below SSRR	✕
Geotech Testpits (as per table)	●
Area I Investigation Area	⊠

Figure NBA03: Visual and Intrusive Investigation Findings - NBA (Area I - Fill)

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tokaui

Date: 16/09/2024
Figure Reference: 33097NBA03
Drawn by: AF
Reviewed by: SF
Job Number: 33097





No Construction and Demolition material found in this area

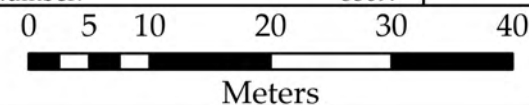
Legend

Below SSRR	×
Above SSRR, Below SSM	⦿
Approximate Location of Stream	—
Former WWTP	□
Site Boundary	□

Figure NBA05: Visual and Intrusive Investigation Findings - NBA (Former Wastewater Treatment Plant)

Toitū Te Whenua Land Information New Zealand
Addendum Detailed Site Investigation Report
Former Tokanui Hospital Demolition and Remediation Project
Tokaui

Date: 05/11/2024
Figure Reference: 33097/NBA05
Drawn by: AF
Reviewed by: SF
Job Number: 33097





 Fraser Thomas ENGINEERS • RESOURCE MANAGERS • SURVEYORS	Figure NBA06: Visual and Intrusive Investigation Findings - NBA (Agricultural Area)	Date: 05/11/2024 Figure Reference: 33097/NBA06 Drawn by: AF Reviewed by: SF Job Number: 33097	
	Toitū Te Whenua Land Information New Zealand Addendum Detailed Site Investigation Report Former Tokanui Hospital Demolition and Remediation Project Tokanui		





	Figure NBA07: Visual and Intrusive Investigation Findings - NBA (Demolished Structure)	Date: 05/11/2024 Figure Reference: 33097/NBA07 Drawn by: AF Reviewed by: SF Job Number: 33097	
	Toitū Te Whenua Land Information New Zealand Addendum Detailed Site Investigation Report Former Tokanui Hospital Demolition and Remediation Project Tokanui		

Proactively Released by
Land Information New Zealand

Appendix A

***Ministry for the Environment
Contaminated Site Report Checklist***

ADDENDUM DETAILED SITE INVESTIGATION

0 number of samples including justification for number
selected and potential limitations of methodology adopted

	in the context of investigation objectives (eg, hotspot size, statistical reliability)			
o	sample depth	☒		4.2.5
o	composite sampling including number of sub-samples per sample		☐	4.2.6
o	background sampling methodology		☒	4.2.7
o	field sampling technique(s)	☒		4.3, 5.2
o	field screening technique(s)		☐	5.4
o	quality assurance and quality control	☒		4.3
5.	Sampling results			
o	summary of works undertaken with rationale for any departure from, or addition to, sampling and analysis plan	☒		6.2
o	field observations (eg, staining, odour, soil characteristics)	☒		5.2.1
o	evaluation of analytical laboratory results with comparison to background concentration levels (if relevant), contaminant standards and/or environmental guideline values	☒		7
o	evaluation of field screening results with comparison to background concentration levels (if relevant), contaminant standards and/or environmental guideline values		☐	7
o	results of field and laboratory sample quality assurance and/or quality control	☒		6.5 & 7.1
o	statistical analysis of results		☐	
6.	Disposal of soil (see FTL ROR and RAP reports for this info) transport, disposal, and tracking of soil and other materials taken away in the course of the activity		☒	
7.	Risk assessment (see FTL ROR and RAP reports for this info)			
o	Conceptual site model	☒		3
o	evaluation of the probability that contamination exists on the site	☒		3.3.11
o	characterisation of the source through adequate delineation of contamination horizontally and vertically and assessment of contaminant concentrations	☒		
o	identify and characterise potential pathways and receptors for each exposure area through relevant site properties (eg, assessment of geology, hydrogeology, building construction, site use)	☒		
o	determine the likelihood the contamination poses a risk to identified receptors including potential receptors	☒		
o	<i>evaluate the magnitude of that risk pursuant to regulation 10(2)(b):</i>	☒		

– the report on the detailed site investigation must state that the soil contamination exceeds the applicable standard in regulation 7 pursuant to regulation 10(3)(b): – recommendation on the suitability of the piece of land for the proposed activity, given the amount and kind of soil contamination o describe any requirements for management methods to mitigate identified risks (as necessary) o evaluate the magnitude of any identified risk to other receptors (eg, ecological) describe the limitations of the data collected and the assumptions and uncertainties inherent in the data and models used.			
8. Discussion		☒	
9. Conclusions	☒		
10 Recommendations (if relevant to report purpose)		☒	
11. Report limitations	☒		
12. SQEP certification of report (refer page iii)	☒		1.2
13. References	☒		
Appendices: relevant supporting information	☒		

Proactively Released by
Land Information New Zealand

Appendix B

FTL Laboratory Results & Transcripts

Semi Quantitative Analysis of Soil

Client: Fraser Thomas LTD
Contact: Elliot Bish
Tel: 021 225 4572
Email: ebish@ftl.co.nz
Address: 21 El Kobar Drive

Eurofins | Focus
Unit C1, 4 Pacific Rise
Mount Wellington
Auckland 1060
Tel: +64 (0) 9 525 0568

Site: : 33097

Date sample(s)
received: 20/02/2024

Date sample(s) analysed: 4/03/2024

Samples taken
by: Elliot Bish

Certificate / Job Number: Q-00618/33097

Qualitative Analysis of Asbestos

Lab ID	Sample ID	Sample Details	Sample Weight (g) (as received)	Fibres Identified
1	B02 A 0.1		606	ORF, NAD
2	B02 B 0.1		574	ORF, NAD
3	B02 C 0.1		600	ORF, NAD
4	B02 D 0.1		592	ORF, NAD
5	B03 A 0.1		613	ORF, NAD
6	B03 B 0.1		616	ORF, NAD
7	B10 A 0.1		736	ORF, NAD
8	B10 B 0.1		723	ORF, NAD
9	B20 A 0.1		728	CHR, ORF
10	B20 B 0.1		741	ORF, NAD
11	B20 C 0.1		1113	ORF, NAD
12	B23 A 0.1		1013	ORF, NAD
13	B23 B 0.1		822	ORF, NAD
14	B23 C 0.1		978	ORF, NAD
15	B23 D 0.1		885	ORF, NAD
16	B23 E 0.1		955	ORF, NAD
17	B23 F 0.1		1096	ORF, NAD
18	B26 Fill 0.4m		825	ORF, NAD
19	B28 A 0.1		865	ORF, NAD
20	B28 B 0.1		785	ORF, NAD
21	B28 C 0.1		771	ORF, NAD
22	B30 A 0.1		519	CHR, ORF
23	B30 B 0.1		543	AMO, CHR, ORF
24	B30 C 0.1		584	ORF, NAD
25	B30 D 0.1		574	CHR, ORF
26	B30 E 0.1		627	CHR, ORF
27	B30 F 0.1		613	ORF, NAD
28	B53 A 0.1		672	ORF, NAD

Qualitative Analysis of Asbestos

Lab ID	Sample ID	Sample Details	Sample Weight (g) (as received)	Fibres Identified
30	B53 C 0.1		861	ORF, NAD
31	B53 D 0.1		747	ORF, NAD
32	B56 A 0.1		613	ORF, NAD
33	B56 B 0.1		631	ORF, NAD
34	B56 C 0.1		614	AMO, CHR, ORF
35	B56 D 0.1		612	ORF, NAD
36	B58 A 0.1		908	ORF, NAD
37	B58 B 0.1		732	ORF, NAD
38	B58 C 0.1		1100	CHR, ORF
39	B62 A 0.1		1090	ORF, NAD
40	B63 B 0.1		1012	AMO, CHR, ORF
41	B63 C 0.1		721	CHR, ORF
42	B71 A 0.1		737	ORF, NAD
43	B71 B 0.1		737	ORF, NAD
44	B75 A 0.1		561	CHR, ORF
45	B75 B 0.1		629	ORF, NAD
46	B55 A 0.1		619	ORF, NAD
47	B55 B 0.1		718	ORF, NAD
48	B55 C 0.1		619	ORF, NAD
49	B55 D 0.1		646	CHR, ORF
50	B55 E 0.1		665	ORF, NAD
51	B55 F 0.1		567	ORF, NAD
52	TPD 01		725	ORF, NAD
53	TPD 02		701	ORF, NAD
54	TPD 03		686	AMO, CHR, ORF
55	TPD 04		819	AMO, CHR, ORF
56	TPD 05		855	ORF, NAD
57	TPD 06		796	ORF, NAD
58	TPD 07		670	ORF, NAD
59	TPD 08		787	CHR, ORF
60	TPD 09		615	ORF, NAD
61	ETP01 0.1m		880	ORF, NAD
62	ETP03 0.1m		937	ORF, NAD
63	ETP04 0.1m		902	ORF, NAD
64	ETP05 0.3m		780	ORF, NAD
65	ETP06 0.3m		841	CHR, ORF
66	ETP07 0.3m		780	ORF, NAD
67	ETP08 0.3m		811	ORF, NAD
68	ETP09 0.3m		811	ORF, NAD

Fibre Identification Key:

CHR – Chrysotile (White Asbestos)

AMO – Amosite (Brown / Grey Asbestos)

CRO – Crocidolite – (Blue Asbestos)

ORF – Organic Fibre

SMF – Synthetic Mineral Fibre

NFD – No Fibres Detected

UMF – Unknown Mineral Fibre

NAD – No Asbestos Detected

Scope of Accreditation:

1. The analytical comments marked (*) stated in the semi-quantitative analysis and the calculations in the semi-quantitative analysis of asbestos in soil are beyond Eurofins | Focus scope of accreditation.
2. The laboratory is not responsible for sampling errors when we have not taken the sample.
3. This certificate should be read in its entirety and shall not be reproduced except in full, without written approval of the laboratory.

Proactively Released by
Land Information New Zealand

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
1	B02 A 0.1	605.8	403.9	33.2	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	197.9	-	NAD	-					
					(<2mm) Fraction	206.0	-	NAD	-					
2	B02 B 0.1	573.5	341.8	40.3	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	156.7	-	NAD	-					
					(<2mm) Fraction	185.1	-	NAD	-					
3	B02 C 0.1	600.3	436.4	27.3	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	115.7	-	NAD	-					
					(<2mm) Fraction	320.7	-	NAD	-					
4	B02 D 0.1	592.2	360.8	39.1	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	193.3	-	NAD	-					
					(<2mm) Fraction	167.5	-	NAD	-					
5	B03 A 0.1	613.4	511.2	16.6	(>10mm) Fraction	19.9	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	101.1	-	NAD	-					
					(<2mm) Fraction	390.2	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
6	B03 B 0.1	615.9	495.9	19.4	(>10mm) Fraction	10.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	104.5	-	NAD	-					
					(<2mm) Fraction	381.4	-	NAD	-					
7	B10 A 0.1	736.1	601.4	18.3	(>10mm) Fraction	101.3	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	245.0	-	NAD	-					
					(<2mm) Fraction	255.1	-	NAD	-					
8	B10 B 0.1	722.6	530.3	26.6	(>10mm) Fraction	12.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	204.9	-	NAD	-					
					(<2mm) Fraction	312.6	-	NAD	-					
9	B20 A 0.1	727.5	590.0	18.8	(>10mm) Fraction	109.4	-	NAD	-	0.0001	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	200.3	-	NAD	-					
					(<2mm) Fraction	280.3	0.0001	FFF	100					
10	B20 B 0.1	741.3	588.2	20.7	(>10mm) Fraction	46.1	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	276.8	-	NAD	-					
					(<2mm) Fraction	265.3	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
11	B20 C 0.1	1113.0	1040.8	6.5	(>10mm) Fraction	355.3	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	502.1	-	NAD	-					
					(<2mm) Fraction	183.4	-	NAD	-					
12	B23 A 0.1	1013.3	866.1	14.5	(>10mm) Fraction	40.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	295.4	-	NAD	-					
					(<2mm) Fraction	529.9	-	NAD	-					
13	B23 B 0.1	822.0	660.6	19.6	(>10mm) Fraction	102.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	357.7	-	NAD	-					
					(<2mm) Fraction	200.2	-	NAD	-					
14	B23 C 0.1	977.7	805.8	17.5	(>10mm) Fraction	150.3	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	397.5	-	NAD	-					
					(<2mm) Fraction	258.0	-	NAD	-					
15	B23 D 0.1	884.6	804.9	8.9	(>10mm) Fraction	106.1	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	350.3	-	NAD	-					
					(<2mm) Fraction	348.5	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
16	B23 E 0.1	955.3	879.8	7.9	(>10mm) Fraction	232.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	310.8	-	NAD	-					
					(<2mm) Fraction	336.3	-	NAD	-					
17	B23 F 0.1	1095.8	1025.4	6.4	(>10mm) Fraction	251.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	380.2	-	NAD	-					
					(<2mm) Fraction	393.4	-	NAD	-					
18	B26 Fill 0.4m	825.1	575.5	30.2	(>10mm) Fraction	35.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	322.8	-	NAD	-					
					(<2mm) Fraction	217.7	-	NAD	-					
19	B28 A 0.1	865.2	689.3	20.3	(>10mm) Fraction	103.4	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	154.9	-	NAD	-					
					(<2mm) Fraction	431.0	-	NAD	-					
20	B28 B 0.1	785.4	583.0	25.7	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	280.1	-	NAD	-					
					(<2mm) Fraction	302.9	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
21	B28 C 0.1	771.3	601.5	22.0	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	257.1	-	NAD	-					
					(<2mm) Fraction	344.4	-	NAD	-					
22	B30 A 0.1	518.5	385.2	25.6	(>10mm) Fraction	0.0	-	NAD	-	0.0020	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	128.2	0.0245	BTP	8					
					(<2mm) Fraction	257.0	-	NAD	-					
23	B30 B 0.1	543.4	446.7	17.7	(>10mm) Fraction	32.2	-	NAD	-	0.0006	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	72.3	0.0042	CMP	15					
					(<2mm) Fraction	342.2	-	NAD	-					
24	B30 C 0.1	583.9	443.9	23.9	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	168.5	-	NAD	-					
					(<2mm) Fraction	275.4	-	NAD	-					
25	B30 D 0.1	573.9	440.8	23.1	(>10mm) Fraction	21.4	-	NAD	-	0.0378	-	<0.001	0.009	0.009
					(10-2mm) Fraction	138.3	0.4700	BTP	8					
					(<2mm) Fraction	281.1	0.0002	FFF	100					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
26	B30 E 0.1	626.8	476.4	23.9	(>10mm) Fraction	0.0	-	NAD	-	0.0107	-	<0.001	0.002	0.002
					(10-2mm) Fraction	197.4	0.1321	BTP	8					
					(<2mm) Fraction	279.0	0.0001	FFF	100					
27	B30 F 0.1	612.8	356.3	41.8	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	144.0	-	NAD	-					
					(<2mm) Fraction	212.3	-	NAD	-					
28	B53 A 0.1	672.4	394.9	41.2	(>10mm) Fraction	14.1	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	159.9	-	NAD	-					
					(<2mm) Fraction	220.9	-	NAD	-					
30	B53 C 0.1	861.3	550.9	36.0	(>10mm) Fraction	37.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	314.5	-	NAD	-					
					(<2mm) Fraction	198.6	-	NAD	-					
31	B53 D 0.1	746.6	557.5	25.3	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	233.2	-	NAD	-					
					(<2mm) Fraction	324.3	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
32	B56 A 0.1	613.1	465.3	24.1	(>10mm) Fraction	23.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	220.7	-	NAD	-					
					(<2mm) Fraction	221.4	-	NAD	-					
33	B56 B 0.1	630.9	493.9	21.6	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	125.2	-	NAD	-					
					(<2mm) Fraction	368.7	-	NAD	-					
34	B56 C 0.1	614.3	487.3	20.6	(>10mm) Fraction	0.0	-	NAD	-	0.0345	-	<0.001	0.007	0.007
					(10-2mm) Fraction	167.4	0.2298	CMP	15					
					(<2mm) Fraction	319.9	-	NAD	-					
35	B56 D 0.1	612.4	496.3	18.9	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	256.0	-	NAD	-					
					(<2mm) Fraction	240.3	-	NAD	-					
36	B58 A 0.1	908.4	811.7	10.6	(>10mm) Fraction	116.9	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	365.4	-	NAD	-					
					(<2mm) Fraction	329.4	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
37	B58 B 0.1	731.5	622.0	14.9	(>10mm) Fraction	22.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	374.3	-	NAD	-					
					(<2mm) Fraction	225.0	-	NAD	-					
38	B58 C 0.1	1099.7	1042.2	5.2	(>10mm) Fraction	474.1	-	NAD	-	0.0001	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	403.7	-	NAD	-					
					(<2mm) Fraction	164.4	0.0001	FFF	100					
39	B62 A 0.1	1089.9	994.2	8.7	(>10mm) Fraction	303.6	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	348.2	-	NAD	-					
					(<2mm) Fraction	342.4	-	NAD	-					
40	B63 B 0.1	1011.9	898.8	11.1	(>10mm) Fraction	309.2	-	NAD	-	0.0534	-	<0.001	0.006	0.006
					(10-2mm) Fraction	291.2	0.1780	CMP	15					
					(<2mm) Fraction	298.4	0.0267	FFF	100					
41	B63 C 0.1	721.0	502.6	30.3	(>10mm) Fraction	9.5	-	NAD	-	0.0001	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	248.6	-	NAD	-					
					(<2mm) Fraction	244.5	0.0001	FFF	100					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
42	B71 A 0.1	737.1	909.5	-23.4	(>10mm) Fraction	300.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	404.5	-	NAD	-					
					(<2mm) Fraction	204.3	-	NAD	-					
43	B71 B 0.1	737.1	427.5	42.0	(>10mm) Fraction	9.5	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	84.8	-	NAD	-					
					(<2mm) Fraction	333.2	-	NAD	-					
44	B75 A 0.1	561.3	389.6	30.6	(>10mm) Fraction	0.0	-	NAD	-	0.0001	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	92.9	-	NAD	-					
					(<2mm) Fraction	296.7	0.0001	FFF	100					
45	B75 B 0.1	628.9	435.6	30.6	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	121.4	-	NAD	-					
					(<2mm) Fraction	314.2	-	NAD	-					
46	B55 A 0.1	619.4	447.4	27.7	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	139.6	-	NAD	-					
					(<2mm) Fraction	307.8	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
47	B55 B 0.1	718.4	565.0	21.3	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	118.8	-	NAD	-					
					(<2mm) Fraction	446.2	-	NAD	-					
48	B55 C 0.1	618.9	508.6	17.7	(>10mm) Fraction	44.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	112.9	-	NAD	-					
					(<2mm) Fraction	351.5	-	NAD	-					
49	B55 D 0.1	645.9	451.9	29.9	(>10mm) Fraction	0.0	-	NAD	-	0.0370	-	<0.001	0.008	0.008
					(10-2mm) Fraction	93.9	0.4618	BTP	8					
					(<2mm) Fraction	358.0	0.0010	BTP	8					
50	B55 E 0.1	664.6	474.7	28.5	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	282.2	-	NAD	-					
					(<2mm) Fraction	192.5	-	NAD	-					
51	B55 F 0.1	567.2	437.8	22.8	(>10mm) Fraction	51.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	164.6	-	NAD	-					
					(<2mm) Fraction	222.2	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
52	TPD 01	724.9	539.8	25.4	(>10mm) Fraction	124.5	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	200.9	-	NAD	-					
					(<2mm) Fraction	214.4	-	NAD	-					
53	TPD 02	701.4	517.0	26.2	(>10mm) Fraction	103.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	167.3	-	NAD	-					
					(<2mm) Fraction	246.5	-	NAD	-					
54	TPD 03	686.2	516.6	24.7	(>10mm) Fraction	104.2	-	NAD	-	0.0232	-	<0.001	0.005	0.005
					(10-2mm) Fraction	157.9	0.0165	FFF	100					
					(<2mm) Fraction	254.5	0.0067	FFF	100					
55	TPD 04	818.6	668.9	18.2	(>10mm) Fraction	196.7	-	NAD	-	0.0024	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	247.8	0.0003	FFF	100					
					(<2mm) Fraction	224.4	0.0021	FFF	100					
56	TPD 05	854.5	695.8	18.5	(>10mm) Fraction	138.4	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	246.3	-	NAD	-					
					(<2mm) Fraction	311.1	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
57	TPD 06	796.0	627.1	21.2	(>10mm) Fraction	89.6	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	270.4	-	NAD	-					
					(<2mm) Fraction	267.1	-	NAD	-					
58	TPD 07	669.5	521.1	22.1	(>10mm) Fraction	97.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	226.0	-	NAD	-					
					(<2mm) Fraction	197.4	-	NAD	-					
59	TPD 08	786.6	589.3	25.0	(>10mm) Fraction	51.7	-	NAD	-	0.0018	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	194.3	0.0017	FFF	100					
					(<2mm) Fraction	343.3	0.0001	FFF	100					
60	TPD 09	615.3	409.8	33.4	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	159.9	-	NAD	-					
					(<2mm) Fraction	249.9	-	NAD	-					
61	ETP01 0.1m	879.6	799.8	9.0	(>10mm) Fraction	164.6	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	388.3	-	NAD	-					
					(<2mm) Fraction	246.9	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
62	ETP03 0.1m	937.4	810.0	13.6	(>10mm) Fraction	192.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	408.6	-	NAD	-					
					(<2mm) Fraction	208.7	-	NAD	-					
63	ETP04 0.1m	902.3	744.9	17.4	(>10mm) Fraction	148.9	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	414.3	-	NAD	-					
					(<2mm) Fraction	181.7	-	NAD	-					
64	ETP05 0.3m	780.0	566.8	27.3	(>10mm) Fraction	74.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	250.9	-	NAD	-					
					(<2mm) Fraction	241.9	-	NAD	-					
65	ETP06 0.3m	840.8	569.4	32.2	(>10mm) Fraction	19.6	-	NAD	-	0.0001	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	262.1	-	NAD	-					
					(<2mm) Fraction	287.7	0.0001	FFF	100					
66	ETP07 0.3m	780.2	495.0	36.5	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	249.7	-	NAD	-					
					(<2mm) Fraction	245.3	-	NAD	-					

***Semi Quantitative Analysis of Soil**

***Semi Quantitative Analysis of Asbestos in Soil**

Date sample(s) received: 20/02/2024

Date sample(s) analysed: 04/03/2024

Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (% w/w) ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
67	ETP08 0.3m	811.1	503.9	37.9	(>10mm) Fraction	14.5	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	253.3	-	NAD	-					
					(<2mm) Fraction	236.1	-	NAD	-					
68	ETP09 0.3m	811.1	503.9	37.9	(>10mm) Fraction	14.5	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	253.3	-	NAD	-					
					(<2mm) Fraction	236.1	-	NAD	-					

Analysis Method:

Samples submitted have been analysed to determine the mass fraction of asbestos in soil using low powered stereo microscopy followed by polarised light microscopy (PLM) including dispersion staining techniques as documented in (AS 4964-2004), Method for the qualitative identification of asbestos in bulk samples, BRANZ, New Zealand Guidelines for Assessing and Managing Asbestos in Soils:2017 and (TP 04) our internal method Technical Procedure for Qualitative and Semi Qualitative analysis of asbestos in soil.

Product Identification Key:

BTP	Bituminous Product	LSE	Loose Fill Insulation
CMP	Cement Product	NAD	No Asbestos Detected
COM	Composite	PPR	Paper Product
FFF	Free Fibres	RPL	Reinforced Plastics
FIB	Fibre Board	TXC	Textured Coating
GCP	Gaskets (compressed)	VNP	Vinyl Products
GRW	Gaskets (rope/woven)	VPP	Vinyl with paper backing
INB	Insulating Board	WVP	Woven Product

Interpretation of Key:

^a Percentage of Asbestos in product is adopted from HSG 264 - 2012, Asbestos the survey guide, Appendix 2, ACMS in buildings and categorized in our internal Technical Procedure (TP04) for Qualitative and Semi-Quantitative analysis of asbestos in soil. A dash (-) denotes that there was no asbestos found in that fraction.

^b Total Mass of Asbestos is the sum mass of asbestos-by-asbestos type in product type(^a) plus the mass of free fibre asbestos. A dash (-) denotes that there was no total mass of asbestos calculated asbestos found in that fraction.

^c Bonded Asbestos Containing Material in the greater than 10mm fraction as percentage of the total sample (% w/w). A dash (-) denotes that there was no bonded asbestos containing materials found in that fraction.

^d Asbestos as Fibrous Asbestos (FA) in greater than 10mm fraction as percentage of total sample (% w/w).

^e Asbestos as Asbestos Fines (AF) in less than 10mm fraction as a percentage of total sample (% w/w).

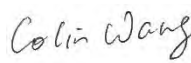
^f Total Friable Asbestos combining Fibrous Asbestos and Asbestos Fines as the percentage weight for weight of the total sample (% w/w).

Sample Retention: Hold soil samples will only be stored for one month from date of receipt.

Analyst Name: Rebecca Rawlings

Analyst Signature: 

Reviewed By KTP: Colin Wang

Reviewer Signature: 

Semi Quantitative Analysis of Soil

Client: Fraser Thomas LTD
Contact: Elliot Bish
Tel: 021 225 4572
Email: ebish@ftl.co.nz
Address: 21 El Kobar Drive

Focus Analytics Ltd
 Unit C1, 4 Pacific Rise
 Mount Wellington
 Auckland 1060
 Tel: +64 (0) 9 525 0568

Site: : 33097

Date sample(s)
 received: 27/04/2023

Date sample(s) analysed: 3/05/2023

Samples taken
 by: EB/BLM

Certificate / Job Number: Q-00417/33097

Qualitative Analysis of Asbestos

Lab ID	Sample ID	Sample Details	Sample Weight (g) (as received)	Fibres Identified
1	HA1 0.2-0.6m		569	ORF, NAD
2	TP37 0.2m		786	ORF, NAD
3	TP38 0.1m		704	ORF, NAD
4	TP38 0.3m		644	CHR, ORF
5	TP 38 2.0m		753	ORF, NAD
6	TP39 0.2m		671	ORF, NAD
7	TP39 0.5m		827	CHR, ORF
8	TP40 0.6m		765	ORF, NAD
9	TP40 1.0m		672	AMO, CHR, ORF
10	TP41 cap 0.2m		751	ORF, NAD
11	TP42 cap 0.2m		842	ORF, NAD
12	TP42 cap 1.0m		708	ORF, NAD
13	TP43 cap 0.3m		696	ORF, NAD
14	TP43 cap 0.7m		572	ORF, NAD
15	TP44 cap 0.4m		835	ORF, NAD
16	TP44 IF 1.0m		721	ORF, NAD
17	TP45 cap 0.2m		788	ORF, NAD
18	TP46 0.1m		677	ORF, NAD
19	TP46 0.3m		553	ORF, NAD
20	TP47 0.1m		541	ORF, NAD
21	TP48 0.1m		498	ORF, NAD
22	TP49 0.1m		573	ORF, NAD
23	TP50 0.1m		785	ORF, NAD
24	TP50 0.3m		673	CHR, ORF
25	TP50 0.5m		656	CHR, ORF
26	TP51 0.1m		581	ORF, NAD
27	TP51 0.25m		530	ORF, NAD

Qualitative Analysis of Asbestos

Lab ID	Sample ID	Sample Details	Sample Weight (g) (as received)	Fibres Identified
28	TP52 0.1m		672	ORF, NAD
29	TP54 0.1m		639	CHR, ORF
30	TP55 0.1m		910	ORF, NAD
31	TP56 0.1m		504	CHR, ORF
32	TP56 2.3m		533	ORF, NAD
33	TP57 0.8m		698	ORF, NAD
34	TP57 1.5m		598	ORF, NAD

Fibre Identification Key:

CHR – Chrysotile (White Asbestos)

AMO – Amosite (Brown / Grey Asbestos)

CRO – Crocidolite – (Blue Asbestos)

UMF – Unknown Mineral Fibre

ORF – Organic Fibre

SMF – Synthetic Mineral Fibre

NFD – No Fibres Detected

NAD – No Asbestos Detected

Scope of Accreditation:

1. The analytical comments marked (*) stated in the semi-quantitative analysis and the calculations in the semi-quantitative analysis of asbestos in soil are beyond Focus Analytics scope of accreditation.
2. The laboratory is not responsible for sampling errors when we have not taken the sample.
3. This certificate should be read in its entirety and shall not be reproduced except in full, without written approval of the laboratory.

***Semi Quantitative Analysis of Soil**

*Semi Quantitative Analysis of Asbestos in Soil														
Date sample(s) received: 27/04/2023														
Date sample(s) analysed: 3/05/2023														
Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
1	HA1 0.2-0.6m	569.2	450.8	20.8	(>10mm) Fraction	91.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	163.7	-	NAD	-					
					(<2mm) Fraction	195.3	-	NAD	-					
2	TP37 0.2m	786.2	659.0	16.2	(>10mm) Fraction	108.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	324.1	-	NAD	-					
					(<2mm) Fraction	226.1	-	NAD	-					
3	TP38 0.1m	704.3	610.7	13.3	(>10mm) Fraction	111.5	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	206.3	-	NAD	-					
					(<2mm) Fraction	292.9	-	NAD	-					
4	TP38 0.3m	643.9	513.3	20.2	(>10mm) Fraction	58.0	-	NAD	-	0.0014	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	148.0	0.0014	FFF	100					
					(<2mm) Fraction	307.3	-	NAD	-					
5	TP 38 2.0m	753.1	588.4	21.9	(>10mm) Fraction	132.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	196.0	-	NAD	-					
					(<2mm) Fraction	259.7	-	NAD	-					

***Semi Quantitative Analysis of Soil**

*Semi Quantitative Analysis of Asbestos in Soil														
Date sample(s) received: 27/04/2023														
Date sample(s) analysed: 3/05/2023														
Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample ^c	Asbestos as FA (%) w/w ^d	Asbestos as AF (%) w/w ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (%) w/w ^f
6	TP39 0.2m	670.5	552.1	17.6	(>10mm) Fraction	109.4	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	160.4	-	NAD	-					
					(<2mm) Fraction	282.3	-	NAD	-					
7	TP39 0.5m	826.7	678.9	17.8	(>10mm) Fraction	118.1	-	NAD	-	0.0051	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	265.6	0.0051	FFF	100					
					(<2mm) Fraction	295.2	-	NAD	-					
8	TP40 0.6m	765.3	602.0	21.3	(>10mm) Fraction	85.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	233.8	-	NAD	-					
					(<2mm) Fraction	283.0	-	NAD	-					
9	TP40 1.0m	671.7	499.4	25.6	(>10mm) Fraction	53.3	-	NAD	-	0.0413	-	<0.001	0.008	0.008
					(10-2mm) Fraction	191.8	0.1273	INB	25					
					(<2mm) Fraction	254.3	0.0095	FFF	100					
10	TP41 cap 0.2m	751.2	663.5	11.7	(>10mm) Fraction	248.9	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	253.9	-	NAD	-					
					(<2mm) Fraction	160.7	-	NAD	-					

***Semi Quantitative Analysis of Soil**

*Semi Quantitative Analysis of Asbestos in Soil														
Date sample(s) received: 27/04/2023														
Date sample(s) analysed: 3/05/2023														
Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample ^c (% w/w)	Asbestos as FA (%) w/w) ^d	Asbestos as AF (%) w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (%) w/w) ^f
11	TP42 cap 0.2m	841.7	720.1	14.4	(>10mm) Fraction	176.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	322.6	-	NAD	-					
					(<2mm) Fraction	220.7	-	NAD	-					
12	TP42 cap 1.0m	707.7	516.5	26.9	(>10mm) Fraction	38.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	282.5	-	NAD	-					
					(<2mm) Fraction	195.3	-	NAD	-					
13	TP43 cap 0.3m	695.5	595.4	14.3	(>10mm) Fraction	101.7	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	346.7	-	NAD	-					
					(<2mm) Fraction	147.0	-	NAD	-					
14	TP43 cap 0.7m	572.3	408.6	28.6	(>10mm) Fraction	47.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	202.0	-	NAD	-					
					(<2mm) Fraction	159.6	-	NAD	-					
15	TP44 cap 0.4m	834.8	734.5	11.9	(>10mm) Fraction	237.1	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	343.6	-	NAD	-					
					(<2mm) Fraction	153.8	-	NAD	-					

***Semi Quantitative Analysis of Soil**

*Semi Quantitative Analysis of Asbestos in Soil														
Date sample(s) received: 27/04/2023														
Date sample(s) analysed: 3/05/2023														
Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample ^c	Asbestos as FA (% w/w) ^d	Asbestos as AF (% w/w) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (% w/w) ^f
16	TP44 IF 1.0m	721.0	539.9	25.1	(>10mm) Fraction	108.1	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	292.6	-	NAD	-					
					(<2mm) Fraction	139.2	-	NAD	-					
17	TP45 cap 0.2m	788.1	708.6	10.1	(>10mm) Fraction	205.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	368.4	-	NAD	-					
					(<2mm) Fraction	135.2	-	NAD	-					
18	TP46 0.1m	677.1	482.9	28.7	(>10mm) Fraction	26.9	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	174.8	-	NAD	-					
					(<2mm) Fraction	281.2	-	NAD	-					
19	TP46 0.3m	553.2	365.7	33.9	(>10mm) Fraction	36.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	183.2	-	NAD	-					
					(<2mm) Fraction	146.3	-	NAD	-					
20	TP47 0.1m	540.6	357.1	33.9	(>10mm) Fraction	23.4	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	149.2	-	NAD	-					
					(<2mm) Fraction	184.5	-	NAD	-					

***Semi Quantitative Analysis of Soil**

*Semi Quantitative Analysis of Asbestos in Soil														
Date sample(s) received: 27/04/2023														
Date sample(s) analysed: 3/05/2023														
Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample ^c	Asbestos as FA (%) ^d w/w)	Asbestos as AF (%) ^e w/w)	Total Fibrous Asbestos + Asbestos Fines (Friable) (%) ^f w/w)
21	TP48 0.1m	498.0	342.7	31.2	(>10mm) Fraction	25.3	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	186.3	-	NAD	-					
					(<2mm) Fraction	131.1	-	NAD	-					
22	TP49 0.1m	572.9	403.6	29.4	(>10mm) Fraction	31.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	191.2	-	NAD	-					
					(<2mm) Fraction	181.2	-	NAD	-					
23	TP50 0.1m	785.2	583.1	25.7	(>10mm) Fraction	140.3	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	213.8	-	NAD	-					
					(<2mm) Fraction	229.0	-	NAD	-					
24	TP50 0.3m	672.5	502.4	25.2	(>10mm) Fraction	109.1	-	NAD	-	0.0001	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	122.0	0.0001	FFF	100					
					(<2mm) Fraction	271.3	-	NAD	-					
25	TP50 0.5m	656.1	537.9	18.0	(>10mm) Fraction	151.8	-	NAD	-	0.0025	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	163.5	0.0025	FFF	100					
					(<2mm) Fraction	222.6	-	NAD	-					

***Semi Quantitative Analysis of Soil**

*Semi Quantitative Analysis of Asbestos in Soil														
Date sample(s) received: 27/04/2023														
Date sample(s) analysed: 3/05/2023														
Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample ^c	Asbestos as FA (%) ^d w/w)	Asbestos as AF (%) ^e w/w)	Total Fibrous Asbestos + Asbestos Fines (Friable) (%) ^f w/w)
26	TP51 0.1m	580.6	421.9	27.3	(>10mm) Fraction	46.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	162.7	-	NAD	-					
					(<2mm) Fraction	213.0	-	NAD	-					
27	TP51 0.25m	530.1	332.9	37.2	(>10mm) Fraction	0.0	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	93.8	-	NAD	-					
					(<2mm) Fraction	239.1	-	NAD	-					
28	TP52 0.1m	672.4	505.6	24.8	(>10mm) Fraction	59.8	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	212.9	-	NAD	-					
					(<2mm) Fraction	232.9	-	NAD	-					
29	TP54 0.1m	639.2	481.5	24.6	(>10mm) Fraction	53.7	-	NAD	-	0.0213	-	<0.001	0.004	0.004
					(10-2mm) Fraction	200.0	0.0201	FFF	100					
					(<2mm) Fraction	227.8	0.0012	FFF	100					
30	TP55 0.1m	910.0	824.5	9.4	(>10mm) Fraction	7.6	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	559.7	-	NAD	-					
					(<2mm) Fraction	257.2	-	NAD	-					

***Semi Quantitative Analysis of Soil**

*Semi Quantitative Analysis of Asbestos in Soil														
Date sample(s) received: 27/04/2023														
Date sample(s) analysed: 3/05/2023														
Lab ID	Sample ID	As received weight (g)	Dry weight (g)	Moisture (%)	Fraction size (mm)	Dry fraction weight (g)	Asbestos product weight (g)	Asbestos product type	Percentage of asbestos in product ^a	Total mass of Asbestos in sample ^b	Bonded Asbestos containing material in sample (%) ^c	Asbestos as FA (%) ^d	Asbestos as AF (%) ^e	Total Fibrous Asbestos + Asbestos Fines (Friable) (%) ^f
31	TP56 0.1m	504.0	333.8	33.8	(>10mm) Fraction	12.7	-	NAD	-	0.0095	-	<0.001	0.003	0.003
					(10-2mm) Fraction	124.3	0.0087	FFF	100					
					(<2mm) Fraction	196.8	0.0008	FFF	100					
32	TP56 2.3m	533.0	326.2	38.8	(>10mm) Fraction	55.5	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	140.7	-	NAD	-					
					(<2mm) Fraction	130.0	-	NAD	-					
33	TP57 0.8m	697.6	536.6	23.0	(>10mm) Fraction	142.1	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	161.7	-	NAD	-					
					(<2mm) Fraction	232.8	-	NAD	-					
34	TP57 1.5m	597.6	421.0	29.5	(>10mm) Fraction	70.2	-	NAD	-	-	-	<0.001	<0.001	<0.001
					(10-2mm) Fraction	159.1	-	NAD	-					
					(<2mm) Fraction	191.7	-	NAD	-					

**Analysis Method:**

Samples submitted have been analysed to determine the mass fraction of asbestos in soil using low powered stereo microscopy followed by polarised light microscopy (PLM) including dispersion staining techniques as documented in (AS 4964-2004), Method for the qualitative identification of asbestos in bulk samples, BRANZ, New Zealand Guidelines for *Assessing and Managing Asbestos in Soils:2017* and (TP 04) *our internal method Technical Procedure for Qualitative and Semi Qualitative analysis of asbestos in soil.*

Product Identification Key:

BTP	Bituminous Product	LSE	Loose Fill Insulation
CMP	Cement Product	NAD	No Asbestos Detected
COM	Composite	PPR	Paper Product
FFF	Free Fibres	RPL	Reinforced Plastics
FIB	Fibre Board	TXC	Textured Coating
GCP	Gaskets (compressed)	VNP	Vinyl Products
GRW	Gaskets (rope/woven)	VPP	Vinyl with paper backing
INB	Insulating Board	WVP	Woven Product

Interpretation of Key:

^a Percentage of Asbestos in product is adopted from HSG 264 - 2012, Asbestos the survey guide, Appendix 2, ACMS in buildings and categorized in our internal Technical Procedure (TP04) for Qualitative and Semi-Quantitative analysis of asbestos in soil. A dash (-) denotes that there was no asbestos found in that fraction.

^b Total Mass of Asbestos is the sum mass of asbestos-by-asbestos type in product type(^a) plus the mass of free fibre asbestos. A dash (-) denotes that there was no total mass of asbestos calculated asbestos found in that fraction.

^c Bonded Asbestos Containing Material in the greater than 10mm fraction as percentage of the total sample (% w/w). A dash (-) denotes that there was no bonded asbestos containing materials found in that fraction.

^d Asbestos as Fibrous Asbestos (FA) in greater than 10mm fraction as percentage of total sample (% w/w).

^e Asbestos as Asbestos Fines (AF) in less than 10mm fraction as a percentage of total sample (% w/w).

^f Total Friable Asbestos combining Fibrous Asbestos and Asbestos Fines as the percentage weight for weight of the total sample (% w/w).

Sample Retention: Hold soil samples will only be stored for one month from date of receipt.

Analyst Name:Rebecca
Rawlings**Analyst Signature:****Reviewed By KTP:** Colin Wang**Reviewer
Signature:**



Certificate of Analysis

Page 1 of 7

Client:	Fraser Thomas Limited	Lab No:	3257173	SPV1
Contact:	Elliot Bish	Date Received:	27-Apr-2023	
	C/- Fraser Thomas Limited	Date Reported:	02-May-2023	
	PO Box 204006	Quote No:	92882	
	Highbrook	Order No:	PO000883	
	Auckland 2161	Client Reference:	33097	
		Submitted By:	Ben Laing-McConnell	

Sample Type: Soil						
Sample Name:		HA1 0.2-0.6m	Dup01	Dup02	TP37 0.2m	TP38 0.1m
		20-Apr-2023	20-Apr-2023	20-Apr-2023	20-Apr-2023	20-Apr-2023
Lab Number:		3257173.1	3257173.2	3257173.3	3257173.4	3257173.5
Individual Tests						
Dry Matter	g/100g as rcvd	73	-	-	72	75
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	5	6	7	5
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	28
Total Recoverable Cadmium	mg/kg dry wt	0.19	0.56	< 0.10	0.27	0.18
Total Recoverable Chromium	mg/kg dry wt	14	12	13	14	9
Total Recoverable Copper	mg/kg dry wt	48	48	28	44	26
Total Recoverable Lead	mg/kg dry wt	96	27	18.5	47	37
Total Recoverable Nickel	mg/kg dry wt	8	5	7	23	8
Total Recoverable Zinc	mg/kg dry wt	116	101	45	110	270
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	4.0	-	-	2.1	1.7
1-Methylnaphthalene	mg/kg dry wt	< 0.014	-	-	< 0.014	< 0.014
2-Methylnaphthalene	mg/kg dry wt	< 0.014	-	-	< 0.014	< 0.014
Acenaphthylene	mg/kg dry wt	0.016	-	-	< 0.014	< 0.014
Acenaphthene	mg/kg dry wt	< 0.014	-	-	< 0.014	< 0.014
Anthracene	mg/kg dry wt	0.036	-	-	0.021	0.016
Benzo[a]anthracene	mg/kg dry wt	0.26	-	-	0.186	0.123
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.44	-	-	0.21	0.179
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.67	-	-	0.31	0.26
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.66	-	-	0.31	0.26
Benzo[b]fluoranthene + Benzo[j]fluoranthene	mg/kg dry wt	0.53	-	-	0.25	0.21
Benzo[e]pyrene	mg/kg dry wt	0.29	-	-	0.126	0.103
Benzo[g,h,i]perylene	mg/kg dry wt	0.35	-	-	0.123	0.111
Benzo[k]fluoranthene	mg/kg dry wt	0.193	-	-	0.097	0.072
Chrysene	mg/kg dry wt	0.29	-	-	0.183	0.121
Dibenzo[a,h]anthracene	mg/kg dry wt	0.082	-	-	0.033	0.027
Fluoranthene	mg/kg dry wt	0.46	-	-	0.32	0.25
Fluorene	mg/kg dry wt	< 0.014	-	-	< 0.014	< 0.014
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.38	-	-	0.124	0.111
Naphthalene	mg/kg dry wt	< 0.07	-	-	< 0.07	< 0.07
Perylene	mg/kg dry wt	0.117	-	-	0.044	0.043
Phenanthrene	mg/kg dry wt	0.096	-	-	0.056	0.041
Pyrene	mg/kg dry wt	0.44	-	-	0.31	0.26



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:		TP38 0.3m 20-Apr-2023	TP38 2.0m 20-Apr-2023	TP39 0.2m 20-Apr-2023	TP39 0.5m 20-Apr-2023	TP40 0.6m 20-Apr-2023
Lab Number:		3257173.6	3257173.7	3257173.8	3257173.9	3257173.10
Individual Tests						
Dry Matter	g/100g as rcvd	77	73	72	78	76
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	72	8	5	3
Total Recoverable Boron	mg/kg dry wt	97	510	41	20	47
Total Recoverable Cadmium	mg/kg dry wt	0.15	3.2	0.50	0.17	< 0.10
Total Recoverable Chromium	mg/kg dry wt	10	38	13	11	10
Total Recoverable Copper	mg/kg dry wt	24	410	40	31	16
Total Recoverable Lead	mg/kg dry wt	34	360	79	76	17.4
Total Recoverable Nickel	mg/kg dry wt	8	54	12	10	8
Total Recoverable Zinc	mg/kg dry wt	85	1,640	191	105	46
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	1.4	0.7	14.6	2.4	0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.014	< 0.014	< 0.013	< 0.013
2-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.014	< 0.014	< 0.013	< 0.013
Acenaphthylene	mg/kg dry wt	< 0.013	< 0.014	0.018	< 0.013	< 0.013
Acenaphthene	mg/kg dry wt	< 0.013	< 0.014	0.129	0.019	< 0.013
Anthracene	mg/kg dry wt	0.016	< 0.014	0.43	0.051	< 0.013
Benzo[a]anthracene	mg/kg dry wt	0.091	0.046	1.00	0.168	0.026
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.143	0.058	1.27	0.22	0.033
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.21	0.086	1.83	0.32	0.049
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.21	0.085	1.81	0.32	0.048
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.160	0.074	1.26	0.25	0.037
Benzo[e]pyrene	mg/kg dry wt	0.081	0.037	0.72	0.135	0.021
Benzo[g,h,i]perylene	mg/kg dry wt	0.099	0.035	0.77	0.141	0.023
Benzo[k]fluoranthene	mg/kg dry wt	0.064	0.026	0.46	0.078	0.016
Chrysene	mg/kg dry wt	0.102	0.049	0.98	0.164	0.027
Dibenzo[a,h]anthracene	mg/kg dry wt	0.023	< 0.014	0.179	0.029	< 0.013
Fluoranthene	mg/kg dry wt	0.194	0.111	2.6	0.37	0.063
Fluorene	mg/kg dry wt	< 0.013	< 0.014	0.087	0.014	< 0.013
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.104	0.036	0.75	0.146	0.021
Naphthalene	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Perylene	mg/kg dry wt	0.040	0.014	0.28	0.050	< 0.013
Phenanthrene	mg/kg dry wt	0.045	0.046	1.28	0.180	0.030
Pyrene	mg/kg dry wt	0.21	0.097	2.5	0.37	0.068
Sample Name:		TP40 1.0m 20-Apr-2023	TP40 2.1m 20-Apr-2023	TP41 cap 0.2m 20-Apr-2023	TP42 cap 0.2m 20-Apr-2023	TP42 cap 1.0m 20-Apr-2023
Lab Number:		3257173.11	3257173.12	3257173.13	3257173.14	3257173.15
Individual Tests						
Dry Matter	g/100g as rcvd	78	69	86	87	72
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	7	2	3	3	3
Total Recoverable Boron	mg/kg dry wt	950	102	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.60	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	29	7	23	26	8
Total Recoverable Copper	mg/kg dry wt	41	17	18	19	16
Total Recoverable Lead	mg/kg dry wt	126	16.4	15.0	15.7	18.2
Total Recoverable Nickel	mg/kg dry wt	49	4	12	13	4
Total Recoverable Zinc	mg/kg dry wt	590	39	65	69	33
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	0.5	< 0.4	1.2	< 0.3	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.015	< 0.012	< 0.012	< 0.014
2-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.015	< 0.012	< 0.012	< 0.014

Sample Type: Soil						
Sample Name:		TP40 1.0m 20-Apr-2023	TP40 2.1m 20-Apr-2023	TP41 cap 0.2m 20-Apr-2023	TP42 cap 0.2m 20-Apr-2023	TP42 cap 1.0m 20-Apr-2023
Lab Number:		3257173.11	3257173.12	3257173.13	3257173.14	3257173.15
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Acenaphthylene	mg/kg dry wt	< 0.013	< 0.015	0.015	< 0.012	< 0.014
Acenaphthene	mg/kg dry wt	< 0.013	< 0.015	< 0.012	< 0.012	< 0.014
Anthracene	mg/kg dry wt	< 0.013	< 0.015	0.027	< 0.012	< 0.014
Benzo[a]anthracene	mg/kg dry wt	0.036	< 0.015	0.062	< 0.012	< 0.014
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.045	< 0.015	0.115	< 0.012	< 0.014
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.065	< 0.035	0.196	< 0.028	< 0.033
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.064	< 0.035	0.195	< 0.027	< 0.033
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.051	< 0.015	0.141	< 0.012	< 0.014
Benzo[e]pyrene	mg/kg dry wt	0.026	< 0.015	0.109	< 0.012	< 0.014
Benzo[g,h,i]perylene	mg/kg dry wt	0.027	< 0.015	0.169	< 0.012	< 0.014
Benzo[k]fluoranthene	mg/kg dry wt	0.021	< 0.015	0.043	< 0.012	< 0.014
Chrysene	mg/kg dry wt	0.035	< 0.015	0.060	< 0.012	< 0.014
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.013	< 0.015	0.037	< 0.012	< 0.014
Fluoranthene	mg/kg dry wt	0.070	< 0.015	0.113	< 0.012	< 0.014
Fluorene	mg/kg dry wt	< 0.013	< 0.015	< 0.012	< 0.012	< 0.014
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.027	< 0.015	0.176	< 0.012	< 0.014
Naphthalene	mg/kg dry wt	< 0.07	< 0.08	< 0.06	< 0.06	< 0.07
Perylene	mg/kg dry wt	0.018	< 0.015	0.032	< 0.012	< 0.014
Phenanthrene	mg/kg dry wt	0.016	< 0.015	0.038	< 0.012	< 0.014
Pyrene	mg/kg dry wt	0.069	< 0.015	0.098	< 0.012	< 0.014
Sample Name:		TP43 cap 0.3m 20-Apr-2023	TP43 cap 0.7m 20-Apr-2023	TP44 cap 0.4m 20-Apr-2023	TP44 IF 1.0m 20-Apr-2023	TP45 0.2m 20-Apr-2023
Lab Number:		3257173.16	3257173.17	3257173.18	3257173.19	3257173.20
Individual Tests						
Dry Matter	g/100g as rcvd	82	71	86	74	87
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	4	5	3	3	2
Total Recoverable Boron	mg/kg dry wt	< 20	159	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.15	0.23	< 0.10	0.14	< 0.10
Total Recoverable Chromium	mg/kg dry wt	18	12	26	7	26
Total Recoverable Copper	mg/kg dry wt	25	22	17	20	17
Total Recoverable Lead	mg/kg dry wt	26	23	16.4	14.7	16.1
Total Recoverable Nickel	mg/kg dry wt	12	16	13	3	13
Total Recoverable Zinc	mg/kg dry wt	76	75	65	56	70
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	0.7	< 0.4	< 0.3	< 0.4	< 0.3
1-Methylnaphthalene	mg/kg dry wt	< 0.012	< 0.014	< 0.012	< 0.013	< 0.012
2-Methylnaphthalene	mg/kg dry wt	< 0.012	< 0.014	< 0.012	< 0.013	< 0.012
Acenaphthylene	mg/kg dry wt	< 0.012	< 0.014	< 0.012	< 0.013	< 0.012
Acenaphthene	mg/kg dry wt	< 0.012	< 0.014	< 0.012	< 0.013	< 0.012
Anthracene	mg/kg dry wt	< 0.012	< 0.014	< 0.012	< 0.013	< 0.012
Benzo[a]anthracene	mg/kg dry wt	0.049	< 0.014	< 0.012	< 0.013	< 0.012
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.063	< 0.014	0.013	< 0.013	< 0.012
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.095	< 0.034	< 0.029	< 0.032	< 0.028
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.094	< 0.034	< 0.029	< 0.032	< 0.028
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.076	< 0.014	0.018	< 0.013	< 0.012
Benzo[e]pyrene	mg/kg dry wt	0.038	< 0.014	< 0.012	< 0.013	< 0.012
Benzo[g,h,i]perylene	mg/kg dry wt	0.039	< 0.014	< 0.012	< 0.013	< 0.012
Benzo[k]fluoranthene	mg/kg dry wt	0.033	< 0.014	< 0.012	< 0.013	< 0.012
Chrysene	mg/kg dry wt	0.050	< 0.014	0.012	< 0.013	< 0.012

Sample Type: Soil						
Sample Name:		TP43 cap 0.3m 20-Apr-2023	TP43 cap 0.7m 20-Apr-2023	TP44 cap 0.4m 20-Apr-2023	TP44 IF 1.0m 20-Apr-2023	TP45 0.2m 20-Apr-2023
Lab Number:		3257173.16	3257173.17	3257173.18	3257173.19	3257173.20
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.012	< 0.014	< 0.012	< 0.013	< 0.012
Fluoranthene	mg/kg dry wt	0.114	< 0.014	0.019	< 0.013	< 0.012
Fluorene	mg/kg dry wt	< 0.012	< 0.014	< 0.012	< 0.013	< 0.012
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.043	< 0.014	< 0.012	< 0.013	< 0.012
Naphthalene	mg/kg dry wt	< 0.06	< 0.07	< 0.06	< 0.07	< 0.06
Perylene	mg/kg dry wt	0.014	< 0.014	< 0.012	< 0.013	< 0.012
Phenanthrene	mg/kg dry wt	0.030	< 0.014	< 0.012	< 0.013	< 0.012
Pyrene	mg/kg dry wt	0.105	< 0.014	0.019	< 0.013	< 0.012
Sample Name:		TP46 0.1m 20-Apr-2023	TP46 0.3m 20-Apr-2023	TP47 0.1m 20-Apr-2023	TP48 0.1m 20-Apr-2023	TP49 0.1m 20-Apr-2023
Lab Number:		3257173.21	3257173.22	3257173.23	3257173.24	3257173.25
Individual Tests						
Dry Matter	g/100g as rcvd	66	65	60	66	69
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6	5	6	5	4
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.24	0.36	0.54	0.44	0.35
Total Recoverable Chromium	mg/kg dry wt	17	14	12	9	9
Total Recoverable Copper	mg/kg dry wt	47	47	47	37	31
Total Recoverable Lead	mg/kg dry wt	21	19.6	26	25	21
Total Recoverable Nickel	mg/kg dry wt	8	7	6	5	5
Total Recoverable Zinc	mg/kg dry wt	72	87	104	122	113
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	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
2-Methylnaphthalene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Acenaphthylene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Acenaphthene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Anthracene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Benzo[a]anthracene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.016	< 0.016	< 0.017	0.017	< 0.015
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.037	< 0.038	< 0.040	< 0.036	< 0.035
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.037	< 0.038	< 0.040	< 0.036	< 0.035
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	0.020	0.017
Benzo[e]pyrene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Benzo[k]fluoranthene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Chrysene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Fluoranthene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	0.023	0.016
Fluorene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Naphthalene	mg/kg dry wt	< 0.08	< 0.08	< 0.09	< 0.08	< 0.08
Perylene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Phenanthrene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	< 0.015	< 0.015
Pyrene	mg/kg dry wt	< 0.016	< 0.016	< 0.017	0.023	0.018
Sample Name:		TP50 0.1m 20-Apr-2023	TP50 0.3m 20-Apr-2023	TP50 0.5m 20-Apr-2023	TP51 0.1m 20-Apr-2023	TP51 0.25m 20-Apr-2023
Lab Number:		3257173.26	3257173.27	3257173.28	3257173.29	3257173.30
Individual Tests						
Dry Matter	g/100g as rcvd	77	69	76	74	62

Sample Type: Soil						
Sample Name:		TP50 0.1m 20-Apr-2023	TP50 0.3m 20-Apr-2023	TP50 0.5m 20-Apr-2023	TP51 0.1m 20-Apr-2023	TP51 0.25m 20-Apr-2023
Lab Number:		3257173.26	3257173.27	3257173.28	3257173.29	3257173.30
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	5	5	6	5
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	30	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.14	0.14	0.18	0.23	0.51
Total Recoverable Chromium	mg/kg dry wt	12	15	13	15	10
Total Recoverable Copper	mg/kg dry wt	33	35	36	57	49
Total Recoverable Lead	mg/kg dry wt	34	34	57	47	20
Total Recoverable Nickel	mg/kg dry wt	8	8	13	9	5
Total Recoverable Zinc	mg/kg dry wt	55	78	83	92	115
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	3.1	2.3	3.8	1.9	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.014	< 0.016
2-Methylnaphthalene	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.014	< 0.016
Acenaphthylene	mg/kg dry wt	< 0.014	< 0.014	0.017	< 0.014	< 0.016
Acenaphthene	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.014	< 0.016
Anthracene	mg/kg dry wt	0.028	0.037	0.042	0.019	< 0.016
Benzo[a]anthracene	mg/kg dry wt	0.26	0.172	0.27	0.140	< 0.016
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.32	0.22	0.40	0.20	< 0.016
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.48	0.33	0.58	0.29	< 0.038
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.48	0.33	0.57	0.29	< 0.038
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.39	0.23	0.42	0.23	< 0.016
Benzo[e]pyrene	mg/kg dry wt	0.194	0.138	0.25	0.131	< 0.016
Benzo[g,h,i]perylene	mg/kg dry wt	0.189	0.170	0.28	0.150	< 0.016
Benzo[k]fluoranthene	mg/kg dry wt	0.157	0.103	0.165	0.083	< 0.016
Chrysene	mg/kg dry wt	0.25	0.161	0.26	0.138	< 0.016
Dibenzo[a,h]anthracene	mg/kg dry wt	0.051	0.035	0.061	0.031	< 0.016
Fluoranthene	mg/kg dry wt	0.48	0.36	0.54	0.27	< 0.016
Fluorene	mg/kg dry wt	< 0.014	< 0.014	< 0.013	< 0.014	< 0.016
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.21	0.168	0.28	0.148	< 0.016
Naphthalene	mg/kg dry wt	< 0.07	< 0.07	< 0.07	< 0.07	< 0.08
Perylene	mg/kg dry wt	0.076	0.053	0.093	0.048	< 0.016
Phenanthrene	mg/kg dry wt	0.076	0.115	0.124	0.061	< 0.016
Pyrene	mg/kg dry wt	0.44	0.36	0.58	0.28	< 0.016
Sample Name:		TP52 0.1m 20-Apr-2023	TP54 0.1m 20-Apr-2023	TP55 0.1m 20-Apr-2023	TP56 0.1m 20-Apr-2023	TP56 2.3m 20-Apr-2023
Lab Number:		3257173.31	3257173.32	3257173.33	3257173.34	3257173.35
Individual Tests						
Dry Matter	g/100g as rcvd	76	77	94	67	56
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	5	6	7	8	6
Total Recoverable Boron	mg/kg dry wt	< 20	< 20	< 20	< 20	< 20
Total Recoverable Cadmium	mg/kg dry wt	0.10	0.23	< 0.10	0.40	0.57
Total Recoverable Chromium	mg/kg dry wt	13	13	17	13	11
Total Recoverable Copper	mg/kg dry wt	30	39	37	42	46
Total Recoverable Lead	mg/kg dry wt	21	76	28	27	24
Total Recoverable Nickel	mg/kg dry wt	9	8	10	6	6
Total Recoverable Zinc	mg/kg dry wt	47	112	70	97	155
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	0.6	< 0.4	< 0.3	< 0.4	< 0.5
1-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.013	< 0.011	< 0.015	< 0.018
2-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.013	< 0.011	< 0.015	< 0.018
Acenaphthylene	mg/kg dry wt	< 0.013	< 0.013	< 0.011	< 0.015	< 0.018
Acenaphthene	mg/kg dry wt	< 0.013	< 0.013	< 0.011	< 0.015	< 0.018

Sample Type: Soil						
Sample Name:		TP52 0.1m 20-Apr-2023	TP54 0.1m 20-Apr-2023	TP55 0.1m 20-Apr-2023	TP56 0.1m 20-Apr-2023	TP56 2.3m 20-Apr-2023
Lab Number:		3257173.31	3257173.32	3257173.33	3257173.34	3257173.35
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Anthracene	mg/kg dry wt	< 0.013	< 0.013	< 0.011	< 0.015	< 0.018
Benzo[a]anthracene	mg/kg dry wt	0.050	0.013	< 0.011	0.018	< 0.018
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.060	0.016	< 0.011	0.020	< 0.018
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.090	< 0.031	< 0.025	< 0.035	< 0.043
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.089	< 0.031	< 0.025	< 0.035	< 0.043
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.071	0.025	< 0.011	0.028	< 0.018
Benzo[e]pyrene	mg/kg dry wt	0.036	0.015	< 0.011	< 0.015	< 0.018
Benzo[g,h,i]perylene	mg/kg dry wt	0.040	0.014	< 0.011	0.016	< 0.018
Benzo[k]fluoranthene	mg/kg dry wt	0.027	< 0.013	< 0.011	< 0.015	< 0.018
Chrysene	mg/kg dry wt	0.049	0.014	< 0.011	0.018	< 0.018
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.013	< 0.013	< 0.011	< 0.015	< 0.018
Fluoranthene	mg/kg dry wt	0.107	0.017	< 0.011	0.040	< 0.018
Fluorene	mg/kg dry wt	< 0.013	< 0.013	< 0.011	< 0.015	< 0.018
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.042	0.014	< 0.011	0.015	< 0.018
Naphthalene	mg/kg dry wt	< 0.07	< 0.07	< 0.06	< 0.08	< 0.09
Perylene	mg/kg dry wt	0.015	< 0.013	< 0.011	< 0.015	< 0.018
Phenanthrene	mg/kg dry wt	0.024	< 0.013	< 0.011	0.017	< 0.018
Pyrene	mg/kg dry wt	0.097	0.017	< 0.011	0.040	< 0.018
Sample Name:		TP57 0.8m 20-Apr-2023		TP57 1.5m 20-Apr-2023		
Lab Number:		3257173.36		3257173.37		
Individual Tests						
Dry Matter	g/100g as rcvd	72		70		
7 Heavy metals plus Boron						
Total Recoverable Arsenic	mg/kg dry wt	6		5		
Total Recoverable Boron	mg/kg dry wt	< 20		< 20		
Total Recoverable Cadmium	mg/kg dry wt	0.23		0.13		
Total Recoverable Chromium	mg/kg dry wt	18		14		
Total Recoverable Copper	mg/kg dry wt	141		40		
Total Recoverable Lead	mg/kg dry wt	66		47		
Total Recoverable Nickel	mg/kg dry wt	8		6		
Total Recoverable Zinc	mg/kg dry wt	86		74		
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	1.3		6.8		
1-Methylnaphthalene	mg/kg dry wt	< 0.014		< 0.015		
2-Methylnaphthalene	mg/kg dry wt	< 0.014		< 0.015		
Acenaphthylene	mg/kg dry wt	< 0.014		< 0.015		
Acenaphthene	mg/kg dry wt	< 0.014		< 0.015		
Anthracene	mg/kg dry wt	0.018		0.077		
Benzo[a]anthracene	mg/kg dry wt	0.097		0.61		
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.127		0.65		
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.193		0.98		
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.191		0.96		
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.166		0.78		
Benzo[e]pyrene	mg/kg dry wt	0.087		0.37		
Benzo[g,h,i]perylene	mg/kg dry wt	0.089		0.35		
Benzo[k]fluoranthene	mg/kg dry wt	0.061		0.31		
Chrysene	mg/kg dry wt	0.098		0.59		
Dibenzo[a,h]anthracene	mg/kg dry wt	0.021		0.099		
Fluoranthene	mg/kg dry wt	0.194		1.21		
Fluorene	mg/kg dry wt	< 0.014		< 0.015		

Sample Type: Soil			
Sample Name:		TP57 0.8m 20-Apr-2023	TP57 1.5m 20-Apr-2023
Lab Number:		3257173.36	3257173.37
Polycyclic Aromatic Hydrocarbons Screening in Soil*			
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.093	0.39
Naphthalene	mg/kg dry wt	< 0.07	< 0.08
Perylene	mg/kg dry wt	0.028	0.156
Phenanthrene	mg/kg dry wt	0.055	0.168
Pyrene	mg/kg dry wt	0.190	1.00

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%.	-	1-37
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	1, 4-37
7 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	1-37
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	1, 4-37
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, 4-37
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, 4-37
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, 4-37

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 27-Apr-2023 and 01-May-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.



Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 10

Client:	Fraser Thomas Limited	Lab No:	3482767	SPv1
Contact:	Elliot Bish	Date Received:	01-Mar-2024	
	C/- Fraser Thomas Limited	Date Reported:	05-Mar-2024	
	PO Box 204006	Quote No:	118001	
	Highbrook	Order No:	PO 001053	
	Auckland 2161	Client Reference:	33097	
		Submitted By:	Dr S Finnigan	

Sample Type: Soil						
Sample Name:		TPD01	TPD02	TPD03	TPD04	TPD05
Lab Number:		3482767.1	3482767.2	3482767.3	3482767.4	3482767.5
Individual Tests						
Dry Matter	g/100g as rcvd	70	66	73	76	79
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	6	8	6	5	5
Total Recoverable Cadmium	mg/kg dry wt	0.19	0.21	0.21	0.18	0.11
Total Recoverable Chromium	mg/kg dry wt	15	20	16	17	20
Total Recoverable Copper	mg/kg dry wt	39	44	43	43	52
Total Recoverable Lead	mg/kg dry wt	19.3	21	35	51	35
Total Recoverable Nickel	mg/kg dry wt	8	7	8	12	11
Total Recoverable Zinc	mg/kg dry wt	77	89	78	101	73
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.4	< 0.4	< 0.4	2.8	1.9
1-Methylnaphthalene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	< 0.013	< 0.013
2-Methylnaphthalene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	< 0.013	< 0.013
Acenaphthylene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	< 0.013	< 0.013
Acenaphthene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	0.018	< 0.013
Anthracene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	0.055	0.026
Benzo[a]anthracene	mg/kg dry wt	< 0.014	< 0.015	0.024	0.21	0.138
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.014	< 0.015	0.029	0.27	0.191
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.034	< 0.036	0.043	0.39	0.28
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.034	< 0.036	0.043	0.39	0.28
Benzo[b]fluoranthene + Benzo[k]fluoranthene	mg/kg dry wt	< 0.014	< 0.015	0.034	0.27	0.21
Benzo[e]pyrene	mg/kg dry wt	< 0.014	< 0.015	0.018	0.153	0.115
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.014	< 0.015	0.021	0.190	0.138
Benzo[k]fluoranthene	mg/kg dry wt	< 0.014	< 0.015	0.014	0.111	0.078
Chrysene	mg/kg dry wt	< 0.014	< 0.015	0.020	0.192	0.130
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	0.038	0.028
Fluoranthene	mg/kg dry wt	< 0.014	< 0.015	0.045	0.45	0.28
Fluorene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	< 0.013	< 0.013
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.014	< 0.015	0.020	0.177	0.134
Naphthalene	mg/kg dry wt	< 0.07	< 0.08	< 0.07	< 0.07	< 0.07
Perylene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	0.060	0.043
Phenanthrene	mg/kg dry wt	< 0.014	< 0.015	< 0.014	0.188	0.079
Pyrene	mg/kg dry wt	< 0.014	< 0.015	0.039	0.43	0.27

Sample Type: Soil						
Sample Name:		TPD06	TPD07	TPD08	TPD09	B26 Fill 0.4m
Lab Number:		3482767.6	3482767.7	3482767.8	3482767.9	3482767.10
Individual Tests						
Dry Matter	g/100g as rcvd	77	71	71	72	60
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	4	5	6	6	6
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.30	0.28	0.28	0.14
Total Recoverable Chromium	mg/kg dry wt	18	16	12	19	13
Total Recoverable Copper	mg/kg dry wt	47	43	36	58	40
Total Recoverable Lead	mg/kg dry wt	28	27	23	24	27
Total Recoverable Nickel	mg/kg dry wt	9	8	7	10	7
Total Recoverable Zinc	mg/kg dry wt	63	230	106	98	68
Polycyclic Aromatic Hydrocarbons Screening in Soil*						
Total of Reported PAHs in Soil	mg/kg dry wt	1.2	0.4	0.4	< 0.4	< 0.4
1-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.015	< 0.014	< 0.014	< 0.017
2-Methylnaphthalene	mg/kg dry wt	< 0.013	< 0.015	< 0.014	< 0.014	< 0.017
Acenaphthylene	mg/kg dry wt	< 0.013	< 0.015	< 0.014	< 0.014	< 0.017
Acenaphthene	mg/kg dry wt	< 0.013	< 0.015	< 0.014	< 0.014	< 0.017
Anthracene	mg/kg dry wt	< 0.013	< 0.015	< 0.014	< 0.014	< 0.017
Benzo[a]anthracene	mg/kg dry wt	0.082	0.033	0.031	< 0.014	< 0.017
Benzo[a]pyrene (BAP)	mg/kg dry wt	0.123	0.044	0.040	0.014	< 0.017
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	0.182	0.064	0.060	< 0.033	< 0.040
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	0.181	0.064	0.060	< 0.033	< 0.040
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	0.131	0.049	0.046	0.016	< 0.017
Benzo[e]pyrene	mg/kg dry wt	0.078	0.026	0.025	< 0.014	< 0.017
Benzo[g,h,i]perylene	mg/kg dry wt	0.127	0.036	0.028	< 0.014	< 0.017
Benzo[k]fluoranthene	mg/kg dry wt	0.052	0.020	0.021	< 0.014	< 0.017
Chrysene	mg/kg dry wt	0.073	0.028	0.035	< 0.014	< 0.017
Dibenzo[a,h]anthracene	mg/kg dry wt	0.021	< 0.015	< 0.014	< 0.014	< 0.017
Fluoranthene	mg/kg dry wt	0.146	0.061	0.064	0.014	< 0.017
Fluorene	mg/kg dry wt	< 0.013	< 0.015	< 0.014	< 0.014	< 0.017
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	0.100	0.029	0.025	< 0.014	< 0.017
Naphthalene	mg/kg dry wt	< 0.07	< 0.08	< 0.07	< 0.07	< 0.09
Perylene	mg/kg dry wt	0.032	< 0.015	< 0.014	< 0.014	< 0.017
Phenanthrene	mg/kg dry wt	0.034	0.017	0.021	< 0.014	< 0.017
Pyrene	mg/kg dry wt	0.152	0.060	0.055	0.014	< 0.017
Sample Name:		EF01	Dup 01	Dup 02	ETP01 0.1-0.3	ETP02 0.1-0.5
Lab Number:		3482767.11	3482767.12	3482767.13	3482767.14	3482767.16
Individual Tests						
Dry Matter	g/100g as rcvd	88	79	87	80	70
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	< 2	3	3	4
Total Recoverable Cadmium	mg/kg dry wt	0.24	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	6	12	10	18
Total Recoverable Copper	mg/kg dry wt	26	11	20	15	24
Total Recoverable Lead	mg/kg dry wt	66	13.2	16.6	15.7	17.0
Total Recoverable Nickel	mg/kg dry wt	16	3	7	6	11
Total Recoverable Zinc	mg/kg dry wt	134	27	59	46	58
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	< 0.4	< 0.4	< 0.5
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Sample Type: Soil						
Sample Name:		EF01	Dup 01	Dup 02	ETP01 0.1-0.3	ETP02 0.1-0.5
Lab Number:		3482767.11	3482767.12	3482767.13	3482767.14	3482767.16
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	< 0.7	< 0.8	< 0.7	< 0.8	< 0.9
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.7	< 0.8	< 0.7	< 0.8	< 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	< 0.7	< 0.8	< 0.7	< 0.8	< 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	0.6	< 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	0.8	< 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	0.8	< 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

Sample Type: Soil						
Sample Name:		EF01	Dup 01	Dup 02	ETP01 0.1-0.3	ETP02 0.1-0.5
Lab Number:		3482767.11	3482767.12	3482767.13	3482767.14	3482767.16
Phenols in SVOC Soil Samples by GC-MS						
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	< 0.7	< 0.8	< 0.7	< 0.8	< 0.9
1,3-Dichlorobenzene	mg/kg dry wt	< 0.7	< 0.8	< 0.7	< 0.8	< 0.9
1,4-Dichlorobenzene	mg/kg dry wt	< 0.7	< 0.8	< 0.7	< 0.8	< 0.9
Hexachlorobutadiene	mg/kg dry wt	< 0.7	< 0.8	< 0.7	< 0.8	< 0.9
Hexachloroethane	mg/kg dry wt	< 0.7	< 0.8	< 0.7	< 0.8	< 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:		ETP03 0.6-1.4	ETP04 0.1-0.5	ETP04 1.5-2.5	ETP04 2.5-3.5	ETP05 0.3-1.0
Lab Number:		3482767.20	3482767.22	3482767.24	3482767.25	3482767.26
Individual Tests						
Dry Matter	g/100g as rcvd	63	80	84	80	76
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	6	5	2	< 2	5
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	16	18	8	6	14
Total Recoverable Copper	mg/kg dry wt	39	25	9	10	33
Total Recoverable Lead	mg/kg dry wt	19.8	16.3	14.8	13.3	18.5
Total Recoverable Nickel	mg/kg dry wt	8	11	3	3	9
Total Recoverable Zinc	mg/kg dry wt	54	62	42	26	57
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	< 0.4	< 0.4	< 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	< 0.8	< 0.7	< 0.8	< 0.8
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8	< 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

Sample Type: Soil						
Sample Name:		ETP03 0.6-1.4	ETP04 0.1-0.5	ETP04 1.5-2.5	ETP04 2.5-3.5	ETP05 0.3-1.0
Lab Number:		3482767.20	3482767.22	3482767.24	3482767.25	3482767.26
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
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	< 0.8	< 0.7	< 0.8	< 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
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	0.6
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	3.1
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	3.7
Benzo[b]fluoranthene + Benzo[j]fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	4.0
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	2.4
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	1.6
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	2.7
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	5.9
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	2.7
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	1.9
Pyrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5	5.5
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	< 1.3	5.4
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 1.3	< 1.3	< 1.3	< 1.3	5.3
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

Sample Type: Soil						
Sample Name:		ETP03 0.6-1.4	ETP04 0.1-0.5	ETP04 1.5-2.5	ETP04 2.5-3.5	ETP05 0.3-1.0
Lab Number:		3482767.20	3482767.22	3482767.24	3482767.25	3482767.26
Plasticisers in SVOC Soil Samples by GC-MS						
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	< 0.8	< 0.7	< 0.8	< 0.8
1,3-Dichlorobenzene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8	< 0.8
1,4-Dichlorobenzene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8	< 0.8
Hexachlorobutadiene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8	< 0.8
Hexachloroethane	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8	< 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 Name:		ETP05 1.0-2.0	ETP05 2.0-3.0	ETP06 0.3-1.0	ETP06 2.0-2.6	ETP07 0.3-1.0
Lab Number:		3482767.27	3482767.28	3482767.31	3482767.33	3482767.35
Individual Tests						
Dry Matter	g/100g as rcvd	87	79	64	77	70
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	3	3	6	3	4
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	17	10	20	7	18
Total Recoverable Copper	mg/kg dry wt	21	13	52	10	44
Total Recoverable Lead	mg/kg dry wt	16.3	18.8	19.9	17.6	17.8
Total Recoverable Nickel	mg/kg dry wt	10	5	10	4	9
Total Recoverable Zinc	mg/kg dry wt	65	53	64	39	62
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	< 0.5
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	< 0.7	< 0.8	< 1.0	< 0.8	< 0.9
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 0.7	< 0.8	< 1.0	< 0.8	< 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	< 0.7	< 0.8	< 1.0	< 0.8	< 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

Sample Type: Soil						
Sample Name:		ETP05 1.0-2.0	ETP05 2.0-3.0	ETP06 0.3-1.0	ETP06 2.0-2.6	ETP07 0.3-1.0
Lab Number:		3482767.27	3482767.28	3482767.31	3482767.33	3482767.35
Organochlorine Pesticides in SVOC Soil Samples by GC-MS						
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	< 0.7	< 0.8	< 1.0	< 0.8	< 0.9
1,3-Dichlorobenzene	mg/kg dry wt	< 0.7	< 0.8	< 1.0	< 0.8	< 0.9
1,4-Dichlorobenzene	mg/kg dry wt	< 0.7	< 0.8	< 1.0	< 0.8	< 0.9
Hexachlorobutadiene	mg/kg dry wt	< 0.7	< 0.8	< 1.0	< 0.8	< 0.9
Hexachloroethane	mg/kg dry wt	< 0.7	< 0.8	< 1.0	< 0.8	< 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

Sample Type: Soil							
Sample Name:		ETP05 1.0-2.0		ETP05 2.0-3.0		ETP06 0.3-1.0	
Lab Number:		3482767.27		3482767.28		3482767.31	
		3482767.33		3482767.35			
Other compounds in SVOC Soil Samples by GC-MS							
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:		ETP07 1.5-2.2		ETP07 2.7-3.7		ETP08 1.0-2.0	
Lab Number:		3482767.36		3482767.38		3482767.40	
		3482767.42					
Individual Tests							
Dry Matter	g/100g as rcvd	63	76	82	75		
Heavy Metals, Screen Level							
Total Recoverable Arsenic	mg/kg dry wt	6	3	3	4		
Total Recoverable Cadmium	mg/kg dry wt	0.25	< 0.10	< 0.10	< 0.10		
Total Recoverable Chromium	mg/kg dry wt	10	8	8	12		
Total Recoverable Copper	mg/kg dry wt	33	12	16	28		
Total Recoverable Lead	mg/kg dry wt	26	17.5	19.8	22		
Total Recoverable Nickel	mg/kg dry wt	6	4	4	7		
Total Recoverable Zinc	mg/kg dry wt	76	43	53	67		
Haloethers in SVOC Soil Samples by GC-MS							
Bis(2-chloroethoxy) methane	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Bis(2-chloroethyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Bis(2-chloroisopropyl)ether	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
4-Bromophenyl phenyl ether	mg/kg dry wt	< 0.5	< 0.4	< 0.4	< 0.4		
4-Chlorophenyl phenyl ether	mg/kg dry wt	< 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		
2,6-Dinitrotoluene	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0		
Nitrobenzene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
N-Nitrosodi-n-propylamine	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8		
N-Nitrosodiphenylamine + Diphenylamine	mg/kg dry wt	< 1.0	< 0.8	< 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		
alpha-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
beta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
delta-BHC	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
gamma-BHC (Lindane)	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
4,4'-DDD	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
4,4'-DDE	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
4,4'-DDT	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0		
Dieldrin	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Endosulfan I	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0		
Endosulfan II	mg/kg dry wt	< 2	< 2	< 2	< 2		
Endosulfan sulphate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0		
Endrin	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8		
Endrin ketone	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0		
Heptachlor	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Heptachlor epoxide	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Hexachlorobenzene	mg/kg dry wt	< 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		
Acenaphthylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo[a]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 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		
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		
Benzo[k]fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5		

Sample Type: Soil					
Sample Name:		ETP07 1.5-2.2	ETP07 2.7-3.7	ETP08 1.0-2.0	ETP09 0.3-0.7
Lab Number:		3482767.36	3482767.38	3482767.40	3482767.42
Polycyclic Aromatic Hydrocarbons in SVOC Soil Samples by GC-MS*					
1&2-Chloronaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	mg/kg dry wt	< 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
2-Methylnaphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	mg/kg dry wt	< 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
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 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
2-Chlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	mg/kg dry wt	< 3	< 3	< 3	< 3
3 & 4-Methylphenol (m- + p-cresol)	mg/kg dry wt	< 3	< 3	< 3	< 3
2-Methylphenol (o-cresol)	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
2-Nitrophenol	mg/kg dry wt	< 5	< 5	< 5	< 5
Pentachlorophenol (PCP)	mg/kg dry wt	< 30	< 30	< 30	< 30
Phenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	mg/kg dry wt	< 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
Butylbenzylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
Di(2-ethylhexyl)adipate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
Diethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
Dimethylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	mg/kg dry wt	< 1.0	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	mg/kg dry wt	< 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	< 0.8	< 0.7	< 0.8
1,3-Dichlorobenzene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8
1,4-Dichlorobenzene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8
Hexachlorobutadiene	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8
Hexachloroethane	mg/kg dry wt	< 1.0	< 0.8	< 0.7	< 0.8
1,2,4-Trichlorobenzene	mg/kg dry wt	< 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
Carbazole	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5
Isophorone	mg/kg dry wt	< 0.5	< 0.5	< 0.5	< 0.5

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

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%.	-	1-14, 16, 20, 22, 24-28, 31, 33, 35-36, 38, 40, 42
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	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	1-14, 16, 20, 22, 24-28, 31, 33, 35-36, 38, 40, 42
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	1-10
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	11-14, 16, 20, 22, 24-28, 31, 33, 35-36, 38, 40, 42
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 rec'd	1-14, 16, 20, 22, 24-28, 31, 33, 35-36, 38, 40, 42
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	1-10
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	1-10

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 01-Mar-2024 and 05-Mar-2024. 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

Proactively Released by
Land Information New Zealand

Appendix C

HAIL XRF/Lab Results

Primary cladding	Roofing	Sample ID	Reading #	Date	Cu Conc	Cu Conc (ppm)	Cu Error	Zn Conc	Zn Conc (ppm)	Zn Error	As Conc	As Conc (ppm)	As Error	Pb Conc	Pb Conc (ppm)	Pb Error	Pb Conc (corrected ppm) (replicates averaged)
Weatherboard	Iron	B2/1 A 0.0	31	6/03/2023	0.03627	362.7	0.00045	0.19237	1923.7	0.00109	<LOD	#VALUE!	0.00172	0.18603	1860.3	0.00097	
Weatherboard	Iron	B2/1 A 0.0	32	6/03/2023	0.05047	504.7	0.00053	0.31256	3125.6	0.00157	<LOD	#VALUE!	0.00176	0.18909	1890.9	0.00098	
Weatherboard	Iron	B2/1 A 0.0	33	6/03/2023	0.0293	293	0.00048	0.32568	3256.8	0.0019	<LOD	#VALUE!	0.00314	0.45075	4507.5	0.00232	
Weatherboard	Iron	B2/1 A 0.0	34	6/03/2023	0.0165	165	0.00032	0.2801	2801	0.00143	<LOD	#VALUE!	0.00172	0.1847	1847	0.00096	
Weatherboard	Iron	B2/1 A 0.0	35	6/03/2023	0.03106	310.6	0.00039	0.45154	4515.4	0.00196	<LOD	#VALUE!	0.00179	0.22498	2249.8	0.00105	
Weatherboard	Iron	B2/1 A 0.0	36	6/03/2023	0.02157	215.7	0.00034	0.19041	1904.1	0.00104	<LOD	#VALUE!	0.00136	0.1247	1247	0.0007	
Weatherboard	Iron	B2/1 A 0.0	37	6/03/2023	0.02617	261.7	0.00038	0.34906	3490.6	0.00165	<LOD	#VALUE!	0.00163	0.17273	1727.3	0.00089	2407.65
Weatherboard	Iron	B2/1 A 0.4	38	6/03/2023	0.00212	21.2	0.00015	0.00918	91.8	0.00018	0.00061	6.1	0.00008	0.00288	28.8	0.0001	31.66
Weatherboard	Iron	B2/1 A 0.3	39	6/03/2023	0.00287	28.7	0.00015	0.0157	157	0.00022	0.00112	11.2	0.00012	0.00902	90.2	0.00015	99.17
Weatherboard	Iron	B2/1 A 0.2	40	6/03/2023	0.01537	153.7	0.0003	0.16154	1615.4	0.00095	<LOD	#VALUE!	0.00136	0.11849	1184.9	0.00069	1302.68
Weatherboard	Iron	B2/1 A 0.1	41	6/03/2023	0.00602	60.2	0.00022	0.06114	611.4	0.00052	<LOD	#VALUE!	0.00098	0.05905	590.5	0.00045	649.20
Weatherboard	Iron	B2/1 B 0.0	42	6/03/2023	0.00375	37.5	0.0002	0.05578	557.8	0.00052	<LOD	#VALUE!	0.00089	0.04408	440.8	0.00039	484.62
Weatherboard	Iron	B2/1 C 0.0	43	6/03/2023	0.00145	14.5	0.00012	0.01041	104.1	0.00016	<LOD	#VALUE!	0.00032	0.00903	90.3	0.00013	99.28
Weatherboard	Iron	B2/1 D 0.0	44	6/03/2023	0.00174	17.4	0.00014	0.0083	83	0.00017	<LOD	#VALUE!	0.00035	0.00847	84.7	0.00014	93.12
Weatherboard	Iron	B2/1 O 0.0	45	6/03/2023	0.00164	16.4	0.00013	0.01868	186.8	0.00023	<LOD	#VALUE!	0.00032	0.00743	74.3	0.00013	
Weatherboard	Iron	B2/1 O 0.0	46	6/03/2023	0.00136	13.6	0.00014	0.02402	240.2	0.00028	<LOD	#VALUE!	0.00033	0.00708	70.8	0.00014	
Weatherboard	Iron	B2/1 O 0.0	47	6/03/2023	0.00141	14.1	0.00014	0.0182	182	0.00024	<LOD	#VALUE!	0.00033	0.0069	69	0.00014	78.46
Weatherboard	Iron	B5/1 A 0.0	9	7/03/2023	0.01025	102.5	0.00027	0.39459	3945.9	0.00189	0.0011	11	0.00021	0.02216	221.6	0.00026	
Weatherboard	Iron	B5/1 A 0.0	10	7/03/2023	0.0087	87	0.00023	0.3426	3426	0.00157	<LOD	#VALUE!	0.00062	0.02572	257.2	0.00026	
Weatherboard	Iron	B5/1 A 0.0	11	7/03/2023	0.01191	119.1	0.00025	0.41834	4183.4	0.00174	<LOD	#VALUE!	0.0006	0.03031	303.1	0.00027	
Weatherboard	Iron	B5/1 A 0.0	12	7/03/2023	0.01095	109.5	0.00024	0.38702	3870.2	0.00162	<LOD	#VALUE!	0.00065	0.0329	329	0.00028	
Weatherboard	Iron	B5/1 A 0.0	13	7/03/2023	0.01196	119.6	0.00027	0.26835	2683.5	0.00136	<LOD	#VALUE!	0.00053	0.01619	161.9	0.00022	
Weatherboard	Iron	B5/1 A 0.0	14	7/03/2023	0.00761	76.1	0.00025	0.31816	3181.6	0.00163	<LOD	#VALUE!	0.00086	0.04455	445.5	0.00039	314.85
Weatherboard	Iron	B5/1 A 0.1	18	7/03/2023	0.00409	40.9	0.00017	0.03492	349.2	0.00034	<LOD	#VALUE!	0.00048	0.01664	166.4	0.0002	182.94
Weatherboard	Iron	B5/1 A 0.2	19	7/03/2023	0.00767	76.7	0.00021	0.04773	477.3	0.00041	<LOD	#VALUE!	0.0012	0.11251	1125.1	0.00061	805.02
Weatherboard	Iron	B5/1 A 0.3	20	7/03/2023	0.00492	49.2	0.00019	0.05184	518.4	0.00044	<LOD	#VALUE!	0.00057	0.02161	216.1	0.00024	207.87
Weatherboard	Iron	B5/1 A 0.2	21	7/03/2023	0.00558	55.8	0.00019	0.04419	441.9	0.0004	<LOD	#VALUE!	0.00092	0.06232	623.2	0.00042	16.77
Weatherboard	Iron	B5/1 A 0.3	22	7/03/2023	0.00277	27.7	0.00017	0.03213	321.3	0.00035	<LOD	#VALUE!	0.0005	0.0154	154	0.00021	
Weatherboard	Iron	B5/1 A 0.2	23	7/03/2023	0.00675	67.5	0.00022	0.04325	432.5	0.00041	<LOD	#VALUE!	0.00083	0.04484	448.4	0.00036	
Weatherboard	Iron	B5/1 A 0.3	24	7/03/2023	0.0051	51	0.0002	0.05158	515.8	0.00046	<LOD	#VALUE!	0.0006	0.02203	220.3	0.00025	
Weatherboard	Iron	B5/1 A 0.3	25	7/03/2023	0.00353	35.3	0.00028	0.03389	338.9	0.00054	<LOD	#VALUE!	0.00076	0.01659	165.9	0.00032	
Weatherboard	Iron	B5/1 A 0.4	26	7/03/2023	0.00241	24.1	0.00021	0.01386	138.6	0.00029	0.00031	3.1	0.00009	0.00161	16.1	0.00012	
Weatherboard	Iron	B5/1 A 0.4	27	7/03/2023	0.00164	16.4	0.00021	0.01286	128.6	0.0003	0.00065	6.5	0.0001	0.00144	14.4	0.00012	
Weatherboard	Iron	B5/1 B 0.0	28	7/03/2023	0.00283	28.3	0.00016	0.02424	242.4	0.00029	<LOD	#VALUE!	0.00034	0.0067	67	0.00014	73.66
Weatherboard	Iron	B5/1 C 0.0	29	7/03/2023	0.00248	24.8	0.00016	0.0179	179	0.00025	<LOD	#VALUE!	0.00033	0.00668	66.8	0.00014	73.44
Weatherboard	Iron	B5/1 D 0.0	30	7/03/2023	0.00193	19.3	0.00014	0.01472	147.2	0.00022	0.00037	3.7	0.0001	0.005	50	0.00012	54.97
Concrete	Iron	B6/1 A 0.0	31	7/03/2023	0.00216	21.6	0.00015	0.02554	255.4	0.0003	<LOD	#VALUE!	0.0004	0.00998	99.8	0.00016	109.72
Concrete	Iron	B6/1 A 0.1	32	7/03/2023	0.00249	24.9	0.00014	0.02445	244.5	0.00027	<LOD	#VALUE!	0.00039	0.01158	115.8	0.00016	127.31
Concrete	Iron	B6/1 A 0.2	33	7/03/2023	0.00139	13.9	0.00013	0.00796	79.6	0.00016	<LOD	#VALUE!	0.00027	0.00452	45.2	0.00011	49.69
Concrete	Iron	B6/1 A 0.3	34	7/03/2023	0.00149	14.9	0.00013	0.00781	78.1	0.00016	<LOD	#VALUE!	0.00029	0.00536	53.6	0.00012	58.93
Concrete	Iron	B6/1 A 0.4	35	7/03/2023	0.00148	14.8	0.00014	0.00907	90.7	0.00018	<LOD	#VALUE!	0.00032	0.00651	65.1	0.00013	71.57
Concrete	Iron	B6/1 B 0.0	36	7/03/2023	0.00093	9.3	0.00013	0.01144	114.4	0.00019	<LOD	#VALUE!	0.00027	0.00419	41.9	0.00011	46.06
Concrete	Iron	B6/1 C 0.0	37	7/03/2023	0.00219	21.9	0.00016	0.01798	179.8	0.00026	<LOD	#VALUE!	0.00032	0.00515	51.5	0.00013	56.62
Concrete	Iron	B6/1 D 0.0	38	7/03/2023	0.00151	15.1	0.00016	0.01298	129.8	0.00023	<LOD	#VALUE!	0.00031	0.00418	41.8	0.00013	45.95
Concrete	Iron	B7/1 A 0.0	40	7/03/2023	0.00262	26.2	0.00024	0.06221	622.1	0.00069	<LOD	#VALUE!	0.00077	0.01971	197.1	0.00032	216.69
Concrete	Iron	B7/1 A 0.1	41	7/03/2023	0.00545	54.5	0.00022	0.0461	461	0.00045	0.00172	17.2	0.00022	0.02271	227.1	0.00027	249.67
Concrete	Iron	B7/1 B 0.0	42	7/03/2023	0.00543	54.3	0.00026	0.0394	394	0.0005	0.00113	11.3	0.00024	0.01916	191.6	0.00029	
Concrete	Iron	B7/1 B 0.0	43	7/03/2023	0.0043	43	0.00021	0.06693	669.3	0.00058	0.00091	9.1	0.00021	0.01915	191.5	0.00025	210.59
Concrete	Iron	B7/1 C 0.0	44	7/03/2023	0.00375	37.5	0.0002	0.05681	568.1	0.00052	<LOD	#VALUE!	0.00056	0.01642	164.2	0.00023	180.52
Concrete	Iron	B7/1 D 0.0	45	7/03/2023	0.00392	39.2	0.00018	0.03694	369.4	0.00037	0.00062	6.2	0.00017	0.01638	163.8	0.00021	180.08
Coro iron	Iron	B8/1 A 0.0	46	7/03/2023	0.0035	35	0.0002	0.03137	313.7	0.00038	0.00152	15.2	0.00032	0.05026	502.6	0.00043	552.56
Coro iron	Iron	B8/1 A 0.1	47	7/03/2023	0.00224	22.4	0.00018	0.00528	52.8	0.00017	0.00067	6.7	0.0001	0.00301	30.1	0.00013	33.09

Coro iron	Iron	B8/1 A 0.2	48	7/03/2023	0.00123	12.3	0.00016	0.0036	36	0.00014	0.00048	4.8	0.00008	0.00163	16.3	0.0001	17.92
Coro iron	Iron	B8/1 A 0.3	49	7/03/2023	0.00131	13.1	0.00016	0.00387	38.7	0.00015	0.00052	5.2	0.00008	0.00163	16.3	0.0001	17.92
Coro iron	Iron	B8/1 B 0.0	50	7/03/2023	0.00685	68.5	0.00026	0.03187	318.7	0.00042	<LOD	#VALUE!	0.00092	0.03853	385.3	0.0004	423.60
Coro iron	Iron	B8/1 C 0.0	51	7/03/2023	0.00528	52.8	0.00025	0.02259	225.9	0.00036	<LOD	#VALUE!	0.00072	0.02145	214.5	0.0003	235.82
Coro iron	Iron	B8/1 D 0.0	52	7/03/2023	0.00436	43.6	0.0002	0.01769	176.9	0.00027	0.00061	6.1	0.00018	0.01611	161.1	0.00022	177.11
Coro iron	Iron	B8/1 O 0.0	53	7/03/2023	0.00194	19.4	0.00022	0.00965	96.5	0.00026	<LOD	#VALUE!	0.00048	0.00703	70.3	0.0002	77.29
Coro iron	Iron	B8/1 B 0.1	54	7/03/2023	0.00869	86.9	0.00023	0.03011	301.1	0.00034	<LOD	#VALUE!	0.00076	0.03922	392.2	0.00033	431.18
Coro iron	Iron	B8/1 B 0.2	55	7/03/2023	0.00206	20.6	0.00016	0.00698	69.8	0.00017	0.00133	13.3	0.0001	0.00314	31.4	0.00012	34.52
Coro iron	Iron	B8/1 C 0.1	56	7/03/2023	0.00506	50.6	0.0002	0.01728	172.8	0.00026	<LOD	#VALUE!	0.0005	0.01442	144.2	0.00021	158.53
Coro iron	Iron	B8/1 C 0.2	57	7/03/2023	0.00347	34.7	0.00019	0.01169	116.9	0.00022	<LOD	#VALUE!	0.00042	0.00903	90.3	0.00017	99.28
Coro iron	Iron	B8/2 A 0.0	58	7/03/2023	0.00174	17.4	0.00015	0.02699	269.9	0.00031	<LOD	#VALUE!	0.00047	0.01437	143.7	0.0002	157.98
Coro iron	Iron	B8/2 A 0.1	59	7/03/2023	0.00183	18.3	0.00015	0.02898	289.8	0.00032	0.0004	4	0.00008	0.00223	22.3	0.0001	24.52
Coro iron	Iron	B8/2 A 0.2	60	7/03/2023	0.00147	14.7	0.00016	0.01945	194.5	0.00027	0.00038	3.8	0.00008	0.00218	21.8	0.0001	23.97
Coro iron	Iron	B8/2 A 0.3	61	7/03/2023	0.00143	14.3	0.00018	0.02347	234.7	0.00034	<LOD	#VALUE!	0.00029	0.00269	26.9	0.00012	29.57
Coro iron	Iron	B8/2 B 0.0	62	7/03/2023	0.00095	9.5	0.00015	0.0225	225	0.0003	<LOD	#VALUE!	0.00035	0.00631	63.1	0.00014	69.37
Coro iron	Iron	B8/2 C 0.0	63	7/03/2023	0.00197	19.7	0.00015	0.01964	196.4	0.00027	0.00057	5.7	0.00012	0.00653	65.3	0.00014	71.79
Coro iron	Iron	B8/2 D 0.0	64	7/03/2023	0.00209	20.9	0.00015	0.0142	142	0.00022	0.00051	5.1	0.00012	0.0069	69	0.00014	75.86
Coro iron	Iron	B8/2 O 0.0	65	7/03/2023	0.00159	15.9	0.00016	0.01018	101.8	0.00021	<LOD	#VALUE!	0.00035	0.0059	59	0.00014	64.86
Concrete	Iron	S2/1 A 0.0	66	7/03/2023	0.00082	8.2	0.00015	0.00793	79.3	0.00019	<LOD	#VALUE!	0.00037	0.00653	65.3	0.00015	71.79
Concrete	Iron	S2/1 A 0.1	67	7/03/2023	0.00218	21.8	0.00015	0.00909	90.9	0.00018	0.00067	6.7	0.0001	0.00522	52.2	0.00012	57.39
Concrete	Iron	S2/1 A 0.2	68	7/03/2023	0.00209	20.9	0.00017	0.00874	87.4	0.0002	0.00075	7.5	0.00012	0.00556	55.6	0.00014	61.13
Concrete	Iron	S2/1 A 0.3	69	7/03/2023	0.00204	20.4	0.00015	0.00981	98.1	0.00018	0.00079	7.9	0.00011	0.00694	69.4	0.00014	76.30
Concrete	Iron	S2/1 B 0.0	70	7/03/2023	0.00224	22.4	0.00015	0.00627	62.7	0.00015	0.00043	4.3	0.00008	0.00274	27.4	0.0001	30.12
Concrete	Iron	S2/1 C 0.0	71	7/03/2023	0.00164	16.4	0.00016	0.00603	60.3	0.00017	0.00053	5.3	0.00009	0.00208	20.8	0.0001	22.87
Concrete	Iron	S2/1 D 0.0	72	7/03/2023	0.00155	15.5	0.00023	0.00516	51.6	0.00022	0.00034	3.4	0.00011	0.00185	18.5	0.00014	20.34
Concrete	Iron	S2/1 O 0.0	73	7/03/2023	0.00189	18.9	0.00015	0.0059	59	0.00015	0.00056	5.6	0.00008	0.00227	22.7	0.0001	24.96
Weatherboard	Iron	B2/2 A 0.0	74	7/03/2023	0.00491	49.1	0.0002	0.04407	440.7	0.00043	<LOD	#VALUE!	0.00159	0.16584	1658.4	0.00087	
Weatherboard	Iron	B2/2 A 0.0	75	7/03/2023	0.00514	51.4	0.00021	0.04429	442.9	0.00044	<LOD	#VALUE!	0.00162	0.16332	1633.2	0.00088	
Weatherboard	Iron	B2/2 A 0.0	76	7/03/2023	0.00421	42.1	0.00019	0.03791	379.1	0.0004	<LOD	#VALUE!	0.00147	0.14104	1410.4	0.00078	
Weatherboard	Iron	B2/2 A 0.0	77	7/03/2023	0.00589	58.9	0.00021	0.04669	466.9	0.00043	<LOD	#VALUE!	0.00157	0.1709	1709	0.00086	
Weatherboard	Iron	B2/2 A 0.0	78	7/03/2023	0.00499	49.9	0.0002	0.04632	463.2	0.00044	<LOD	#VALUE!	0.00162	0.17113	1711.3	0.00089	
Weatherboard	Iron	B2/2 A 0.0	79	7/03/2023	0.00504	50.4	0.00021	0.04384	438.4	0.00043	<LOD	#VALUE!	0.00163	0.17045	1704.5	0.0009	1800.60
Weatherboard	Iron	B2/2 B 0.0	80	7/03/2023	0.00121	12.1	0.00012	0.02727	272.7	0.00028	0.00074	7.4	0.00017	0.02093	209.3	0.00021	230.10
Weatherboard	Iron	B2/2 C 0.0	81	7/03/2023	0.00236	23.6	0.00016	0.01887	188.7	0.00026	<LOD	#VALUE!	0.00073	0.03697	369.7	0.00032	
Weatherboard	Iron	B2/2 C 0.0	82	7/03/2023	0.00251	25.1	0.00016	0.01738	173.8	0.00025	<LOD	#VALUE!	0.00063	0.02861	286.1	0.00027	339.75
Weatherboard	Iron	B2/2 D 0.0	83	7/03/2023	0.00194	19.4	0.00016	0.01222	122.2	0.00022	<LOD	#VALUE!	0.00036	0.00664	66.4	0.00015	73.00
Weatherboard	Iron	B2/2 O 0.0	84	7/03/2023	0.00226	22.6	0.00015	0.0113	113	0.0002	0.00033	3.3	0.00011	0.00568	56.8	0.00013	62.45
Weatherboard	Iron	B2/2 C 0.0	85	7/03/2023	0.00253	25.3	0.00016	0.01582	158.2	0.00023	<LOD	#VALUE!	0.00061	0.02713	271.3	0.00026	
Weatherboard	Iron	B2/2 A 0.1	4	9/03/2023	0.00553	55.3	0.00024	0.03384	338.4	0.00043	<LOD	#VALUE!	0.00148	0.10573	1057.3	0.00073	1162.40
Weatherboard	Iron	B2/2 A 0.4	5	9/03/2023	0.00265	26.5	0.00016	0.01169	116.9	0.0002	0.00039	3.9	0.00008	0.00237	23.7	0.0001	26.06
Weatherboard	Iron	B2/2 A 0.3	6	9/03/2023	0.00386	38.6	0.00018	0.01577	157.7	0.00024	<LOD	#VALUE!	0.00136	0.13273	1327.3	0.00071	
Weatherboard	Iron	B2/2 A 0.2	7	9/03/2023	0.00398	39.8	0.00018	0.02885	288.5	0.00033	<LOD	#VALUE!	0.00113	0.08871	887.1	0.00054	975.28
Weatherboard	Iron	B2/2 A 0.3	8	9/03/2023	0.00295	29.5	0.00017	0.03056	305.6	0.00033	<LOD	#VALUE!	0.00044	0.01188	118.8	0.00018	
Weatherboard	Iron	B2/2 A 0.3	9	9/03/2023	0.00282	28.2	0.00016	0.02162	216.2	0.00027	<LOD	#VALUE!	0.00073	0.04041	404.1	0.00032	
Weatherboard	Iron	B2/2 A 0.3	10	9/03/2023	0.0024	24	0.00016	0.02762	276.2	0.00031	<LOD	#VALUE!	0.00061	0.02641	264.1	0.00026	581.12
Weatherboard	Iron	B2/2 C 0.1	11	9/03/2023	0.00364	36.4	0.00018	0.02268	226.8	0.0003	<LOD	#VALUE!	0.0009	0.05224	522.4	0.0004	574.33
Weatherboard	Iron	B2/2 C 0.2	12	9/03/2023	0.00358	35.8	0.0002	0.02261	226.1	0.00032	<LOD	#VALUE!	0.00124	0.08617	861.7	0.00059	947.35
Weatherboard	Iron	B2/2 C 0.3	13	9/03/2023	0.00361	36.1	0.00018	0.02742	274.2	0.00032	0.0013	13	0.00035	0.07525	752.5	0.00049	827.30
Weatherboard	Iron	B2/2 C 0.4	14	9/03/2023	0.00235	23.5	0.00015	0.01127	112.7	0.00019	<LOD	#VALUE!	0.00033	0.00706	70.6	0.00014	
Weatherboard	Iron	B2/2 C 0.4	15	9/03/2023	0.00238	23.8	0.00015	0.01024	102.4	0.00019	0.0005	5	0.00009	0.00388	38.8	0.00011	60.14
N/A	N/A	B4/1 A 0.0	16	9/03/2023	0.00312	31.2	0.00018	0.01551	155.1	0.00025	<LOD	#VALUE!	0.00032	0.00466	46.6	0.00013	51.23
N/A	N/A	B4/1 B 0.0	17	9/03/2023	0.00231	23.1	0.00015	0.01081	108.1	0.00019	<LOD	#VALUE!	0.00027	0.00387	38.7	0.00011	42.55
N/A	N/A	B4/1 C 0.0	18	9/03/2023	0.00355	35.5	0.00017	0.0181	181	0.00025	0.00032	3.2	0.00009	0.00392	39.2	0.00011	43.10

N/A	N/A	B4/1 D 0.0	19	9/03/2023	0.00211	21.1	0.00019	0.012	120	0.00025	0.00044	4.4	0.00011	0.00347	34.7	0.00013	38.15
N/A	N/A	B4/1 O 0.0	20	9/03/2023	0.00236	23.6	0.00017	0.01361	136.1	0.00024	0.00029	2.9	0.00009	0.0028	28	0.00011	30.78
N/A	N/A	B4/1 A 0.1	21	9/03/2023	0.00385	38.5	0.0002	0.01266	126.6	0.00025	0.00036	3.6	0.00011	0.00442	44.2	0.00014	48.59
N/A	N/A	B4/1 A 0.2	22	9/03/2023	0.00523	52.3	0.00019	0.01613	161.3	0.00024	0.00036	3.6	0.00011	0.00601	60.1	0.00013	66.07
N/A	N/A	B4/1 A 0.3	23	9/03/2023	0.00415	41.5	0.00021	0.0125	125	0.00024	<LOD	#VALUE!	0.00034	0.00475	47.5	0.00014	52.22
N/A	N/A	B4/1 A 0.4	24	9/03/2023	0.00405	40.5	0.00019	0.01238	123.8	0.00023	<LOD	#VALUE!	0.00033	0.00468	46.8	0.00013	51.45
Concrete	Iron	B1/1 A 0.0	26	9/03/2023	0.0025	25	0.00015	0.01261	126.1	0.00021	0.0006	6	0.00009	0.00318	31.8	0.0001	34.96
Concrete	Iron	B1/1 B 0.0	27	9/03/2023	0.00127	12.7	0.00013	0.00642	64.2	0.00015	0.00058	5.8	0.00007	0.00166	16.6	0.00009	18.25
Concrete	Iron	B1/1 C 0.0	28	9/03/2023	0.00097	9.7	0.00013	0.00542	54.2	0.00014	0.00063	6.3	0.00007	0.00162	16.2	0.00008	17.81
Concrete	Iron	B1/1 D 0.0	29	9/03/2023	0.00158	15.8	0.00014	0.00587	58.7	0.00015	0.00093	9.3	0.00008	0.00188	18.8	0.00009	20.67
Concrete	Iron	B1/1 O 0.0	30	9/03/2023	0.00148	14.8	0.00015	0.00649	64.9	0.00016	0.00064	6.4	0.00008	0.00214	21.4	0.0001	23.53
Concrete	Iron	B1/1 A 0.1	31	9/03/2023	0.00134	13.4	0.00014	0.00667	66.7	0.00016	0.00071	7.1	0.00008	0.00171	17.1	0.00009	18.80
Concrete	Iron	B1/1 A 0.2	32	9/03/2023	0.00242	24.2	0.00016	0.00819	81.9	0.00018	0.00076	7.6	0.00009	0.0026	26	0.0001	28.58
Concrete	Iron	B1/1 A 0.3	33	9/03/2023	0.00225	22.5	0.00015	0.0082	82	0.00017	0.00089	8.9	0.00008	0.0019	19	0.00009	20.89
Concrete	Iron	B1/1 A 0.0	34	9/03/2023	0.00262	26.2	0.00016	0.00938	93.8	0.00018	0.00072	7.2	0.00009	0.00294	29.4	0.0001	
Concrete	Iron	B1/1 A 0.0	35	9/03/2023	0.00162	16.2	0.00015	0.00903	90.3	0.00018	0.00037	3.7	0.00008	0.00248	24.8	0.0001	29.79
Brick	Tile	B10/1 A 0.0	36	9/03/2023	0.00863	86.3	0.00021	0.01043	104.3	0.00019	0.00191	19.1	0.0001	0.00448	44.8	0.00011	
Brick	Tile	B10/1 A 0.0	37	9/03/2023	0.00707	70.7	0.0002	0.00925	92.5	0.00018	0.00127	12.7	0.0001	0.00516	51.6	0.00012	
Brick	Tile	B10/1 A 0.0	38	9/03/2023	0.00684	68.4	0.00022	0.00901	90.1	0.0002	0.00148	14.8	0.00011	0.0043	43	0.00013	51.09
Brick	Tile	B10/1 B 0.0	39	9/03/2023	0.00158	15.8	0.00014	0.00656	65.6	0.00015	0.00077	7.7	0.00009	0.00377	37.7	0.00011	41.45
Brick	Tile	B10/1 C 0.0	40	9/03/2023	0.0015	15	0.00014	0.00765	76.5	0.00017	0.00043	4.3	0.0001	0.00406	40.6	0.00012	44.64
Brick	Tile	B10/1 D 0.0	41	9/03/2023	0.00184	18.4	0.00016	0.01019	101.9	0.0002	<LOD	#VALUE!	0.00036	0.00643	64.3	0.00015	70.69
Brick	Tile	B10/1 O 0.0	42	9/03/2023	0.00184	18.4	0.00014	0.00947	94.7	0.00018	0.00049	4.9	0.00011	0.00656	65.6	0.00013	72.12
Brick	Tile	B10/1 A 0.1	43	9/03/2023	0.00579	57.9	0.0002	0.00837	83.7	0.00018	0.00188	18.8	0.00011	0.00407	40.7	0.00012	44.75
Brick	Tile	B10/1 A 0.2	44	9/03/2023	0.00428	42.8	0.00018	0.00782	78.2	0.00017	0.0009	9	0.0001	0.00421	42.1	0.00012	46.28
Brick	Tile	B10/1 A 0.3	45	9/03/2023	0.00521	52.1	0.00018	0.01242	124.2	0.0002	0.00061	6.1	0.00011	0.00589	58.9	0.00013	64.75
Weatherboard	Iron	B11/1 A 0.0	46	9/03/2023	0.00207	20.7	0.00016	0.01789	178.9	0.00026	<LOD	#VALUE!	0.0008	0.04396	439.6	0.00036	
Weatherboard	Iron	B11/1 A 0.0	47	9/03/2023	0.00205	20.5	0.00015	0.01814	181.4	0.00025	<LOD	#VALUE!	0.0007	0.03673	367.3	0.00031	
Weatherboard	Iron	B11/1 A 0.0	48	9/03/2023	0.00191	19.1	0.00017	0.01989	198.9	0.0003	<LOD	#VALUE!	0.00083	0.03867	386.7	0.00036	437.41
Weatherboard	Iron	B11/1 B 0.0	49	9/03/2023	0.00152	15.2	0.00015	0.01681	168.1	0.00025	<LOD	#VALUE!	0.00054	0.01904	190.4	0.00023	209.33
Weatherboard	Iron	B11/1 C 0.0	50	9/03/2023	0.00134	13.4	0.00014	0.00908	90.8	0.00018	<LOD	#VALUE!	0.00035	0.00771	77.1	0.00015	84.76
Weatherboard	Iron	B11/1 D 0.0	51	9/03/2023	0.00139	13.9	0.00021	0.01048	104.8	0.00027	<LOD	#VALUE!	0.00049	0.00769	76.9	0.0002	84.54
Weatherboard	Iron	B11/1 O 0.0	52	9/03/2023	0.00144	14.4	0.00016	0.00847	84.7	0.00019	<LOD	#VALUE!	0.00027	0.00277	27.7	0.00011	
Weatherboard	Iron	B11/1 O 0.0	53	9/03/2023	0.00128	12.8	0.00015	0.00822	82.2	0.00019	<LOD	#VALUE!	0.00027	0.00279	27.9	0.00011	
Weatherboard	Iron	B11/1 O 0.0	54	9/03/2023	0.00109	10.9	0.00014	0.00842	84.2	0.00018	0.00029	2.9	0.00008	0.00226	22.6	0.0001	28.66
Weatherboard	Iron	B11/1 A 0.1	55	9/03/2023	0.00196	19.6	0.00017	0.01395	139.5	0.00024	<LOD	#VALUE!	0.00052	0.01566	156.6	0.00022	172.17
Weatherboard	Iron	B11/1 A 0.2	56	9/03/2023	0.00386	38.6	0.00018	0.02235	223.5	0.00028	<LOD	#VALUE!	0.00063	0.02803	280.3	0.00027	
Weatherboard	Iron	B11/1 A 0.2	59	9/03/2023	0.0032	32	0.00017	0.02616	261.6	0.00031	<LOD	#VALUE!	0.00069	0.03241	324.1	0.0003	
Weatherboard	Iron	B11/1 A 0.2	60	9/03/2023	0.0025	25	0.00016	0.01796	179.6	0.00025	<LOD	#VALUE!	0.0006	0.02581	258.1	0.00026	316.08
Weatherboard	Iron	B11/1 A 0.3	57	9/03/2023	0.00171	17.1	0.00015	0.01047	104.7	0.0002	<LOD	#VALUE!	0.00035	0.00684	68.4	0.00015	75.20
Weatherboard	Iron	B11/1 A 0.4	58	9/03/2023	0.00189	18.9	0.00016	0.01107	110.7	0.00021	<LOD	#VALUE!	0.00034	0.00643	64.3	0.00014	70.69
Weatherboard	Iron	B11/2 A 0.0	61	9/03/2023	0.0015	15	0.00015	0.04356	435.6	0.0004	<LOD	#VALUE!	0.00077	0.04373	437.3	0.00034	
Weatherboard	Iron	B11/2 A 0.0	62	9/03/2023	0.00161	16.1	0.00014	0.04341	434.1	0.00038	<LOD	#VALUE!	0.00076	0.04596	459.6	0.00034	
Weatherboard	Iron	B11/2 A 0.0	63	9/03/2023	0.00172	17.2	0.00014	0.03348	334.8	0.00033	<LOD	#VALUE!	0.00059	0.02778	277.8	0.00025	430.49
Weatherboard	Iron	B11/2 B 0.0	64	9/03/2023	0.00153	15.3	0.00014	0.01852	185.2	0.00024	<LOD	#VALUE!	0.00043	0.01379	137.9	0.00018	151.61
Weatherboard	Iron	B11/2 C 0.0	65	9/03/2023	0.00146	14.6	0.00015	0.01522	152.2	0.00024	<LOD	#VALUE!	0.00042	0.01026	102.6	0.00017	112.80
Weatherboard	Iron	B11/2 D 0.0	66	9/03/2023	0.00091	9.1	0.00016	0.02224	222.4	0.00031	<LOD	#VALUE!	0.00037	0.00601	60.1	0.00015	66.07
Weatherboard	Iron	B11/2 O 0.0	67	9/03/2023	0.00329	32.9	0.0002	0.01405	140.5	0.00026	0.00054	5.4	0.00015	0.00863	86.3	0.00018	94.88
Weatherboard	Iron	B11/2 A 0.0	68	9/03/2023	0.00176	17.6	0.00014	0.04898	489.8	0.0004	<LOD	#VALUE!	0.00074	0.04426	442.6	0.00033	
Weatherboard	Iron	B11/2 A 0.0	69	9/03/2023	0.00178	17.8	0.00014	0.04691	469.1	0.00039	<LOD	#VALUE!	0.00073	0.04503	450.3	0.00033	
Weatherboard	Iron	B11/2 A 0.0	70	9/03/2023	0.00154	15.4	0.00015	0.04921	492.1	0.00043	<LOD	#VALUE!	0.00081	0.04627	462.7	0.00036	496.78
Weatherboard	Iron	B11/2 A 0.1	71	9/03/2023	0.00246	24.6	0.00019	0.01794	179.4	0.00029	<LOD	#VALUE!	0.00045	0.00922	92.2	0.00018	101.36
Weatherboard	Iron	B11/2 A 0.2	72	9/03/2023	0.00231	23.1	0.00016	0.01455	145.5	0.00023	<LOD	#VALUE!	0.00055	0.01891	189.1	0.00023	207.90

Weatherboard	Iron	B11/2 A 0.4	73	9/03/2023	0.00094	9.4	0.00013	0.00929	92.9	0.00018	0.00051	5.1	0.00008	0.00308	30.8	0.0001	33.86
Weatherboard	Iron	B11/2 A 0.3	74	9/03/2023	0.00104	10.4	0.00014	0.01255	125.5	0.00021	<LOD	#VALUE!	0.00042	0.01099	109.9	0.00017	120.82
Weatherboard	Iron	B15/1 A 0.0	75	9/03/2023	0.00235	23.5	0.00017	0.03699	369.9	0.00039	<LOD	#VALUE!	0.00093	0.05532	553.2	0.00042	
Weatherboard	Iron	B15/1 A 0.0	79	9/03/2023	0.00172	17.2	0.00017	0.03193	319.3	0.00037	<LOD	#VALUE!	0.00093	0.05315	531.5	0.00042	
Weatherboard	Iron	B15/1 A 0.0	80	9/03/2023	0.00182	18.2	0.00016	0.03807	380.7	0.00038	<LOD	#VALUE!	0.00089	0.05425	542.5	0.0004	596.31
Weatherboard	Iron	B15/1 B 0.0	76	9/03/2023	0.00089	8.9	0.00014	0.00933	93.3	0.00019	<LOD	#VALUE!	0.00034	0.00669	66.9	0.00014	73.55
Weatherboard	Iron	B15/1 C 0.0	77	9/03/2023	0.00173	17.3	0.00016	0.00776	77.6	0.00019	<LOD	#VALUE!	0.00036	0.00621	62.1	0.00015	68.27
Weatherboard	Iron	B15/1 D 0.0	78	9/03/2023	0.00209	20.9	0.00017	0.00806	80.6	0.00019	0.00066	6.6	0.00012	0.00643	64.3	0.00015	70.69
Weatherboard	Iron	B15/1 A 0.1	81	9/03/2023	0.0026	26	0.00017	0.01505	150.5	0.00024	<LOD	#VALUE!	0.00097	0.06521	652.1	0.00045	716.92
Weatherboard	Iron	B15/1 A 0.2	82	9/03/2023	0.001	10	0.00015	0.00788	78.8	0.00018	0.00075	7.5	0.00013	0.00763	76.3	0.00016	83.88
Weatherboard	Iron	B15/1 A 0.3	83	9/03/2023	0.00162	16.2	0.00015	0.0079	79	0.00018	0.00044	4.4	0.00008	0.00205	20.5	0.0001	22.54
Weatherboard	Iron	B15/2 A 0.0	87	9/03/2023	0.00239	23.9	0.00019	0.02163	216.3	0.00033	0.00066	6.6	0.00021	0.01842	184.2	0.00026	202.51
Weatherboard	Iron	B15/2 B 0.0	88	9/03/2023	0.00192	19.2	0.00016	0.01267	126.7	0.00022	<LOD	#VALUE!	0.00043	0.01047	104.7	0.00018	115.11
Weatherboard	Iron	B15/2 C 0.0	89	9/03/2023	0.00281	28.1	0.00019	0.01051	105.1	0.00023	<LOD	#VALUE!	0.00047	0.01069	106.9	0.0002	117.53
Weatherboard	Iron	B15/2 D 0.0	90	9/03/2023	0.00217	21.7	0.00018	0.00832	83.2	0.0002	<LOD	#VALUE!	0.00037	0.00597	59.7	0.00015	65.63
Weatherboard	Iron	B15/2 A 0.1	91	9/03/2023	0.0036	36	0.0002	0.019	190	0.0003	<LOD	#VALUE!	0.00078	0.03311	331.1	0.00034	
Weatherboard	Iron	B15/2 A 0.1	92	9/03/2023	0.00359	35.9	0.0002	0.0174	174	0.00029	<LOD	#VALUE!	0.00078	0.03213	321.3	0.00034	
Weatherboard	Iron	B15/2 A 0.1	93	9/03/2023	0.00284	28.4	0.0002	0.0144	144	0.00027	<LOD	#VALUE!	0.00081	0.03324	332.4	0.00036	360.90
Weatherboard	Iron	B15/2 A 0.2	94	9/03/2023	0.00294	29.4	0.00016	0.00592	59.2	0.00016	0.00063	6.3	0.00009	0.00343	34.3	0.00011	37.71
Weatherboard	Iron	B15/2 A 0.3	95	9/03/2023	0.00371	37.1	0.00017	0.00603	60.3	0.00015	0.00051	5.1	0.00007	0.00165	16.5	0.00009	18.14
Weatherboard	Iron	B17/1 A 0.0	96	9/03/2023	0.04545	454.5	0.00059	0.4017	4017	0.00222	0.00295	29.5	0.00026	0.02431	243.1	0.00032	267.26
Weatherboard	Iron	B17/1 B 0.0	97	9/03/2023	0.01082	108.2	0.00026	0.08297	829.7	0.00061	0.00052	5.2	0.00017	0.01483	148.3	0.00021	163.04
Weatherboard	Iron	B17/1 C 0.0	98	9/03/2023	0.00495	49.5	0.00023	0.07668	766.8	0.00065	0.00078	7.8	0.00015	0.00855	85.5	0.00018	94.00
Weatherboard	Iron	B17/1 D 0.0	99	9/03/2023	0.00293	29.3	0.00019	0.04622	462.2	0.00044	0.00096	9.6	0.00012	0.00591	59.1	0.00015	64.97
Weatherboard	Iron	B17/1 O 0.0	100	9/03/2023	0.00149	14.9	0.00018	0.01355	135.5	0.00025	0.00054	5.4	0.00014	0.00736	73.6	0.00017	80.92
Weatherboard	Iron	B17/1 A 0.1	101	9/03/2023	0.00255	25.5	0.00018	0.01474	147.4	0.00024	0.00055	5.5	0.00017	0.01546	154.6	0.00021	169.97
Weatherboard	Iron	B17/1 A 0.2	102	9/03/2023	0.00251	25.1	0.00018	0.01225	122.5	0.00023	<LOD	#VALUE!	0.00046	0.01087	108.7	0.00019	
Weatherboard	Iron	B17/1 A 0.2	103	9/03/2023	0.00207	20.7	0.00018	0.01145	114.5	0.00023	0.00047	4.7	0.00013	0.00691	69.1	0.00016	
Weatherboard	Iron	B17/1 A 0.2	104	9/03/2023	0.00218	21.8	0.00017	0.01325	132.5	0.00023	0.00059	5.9	0.00013	0.0082	82	0.00016	95.21
Weatherboard	Iron	B17/1 A 0.3	105	9/03/2023	0.00255	25.5	0.00018	0.01137	113.7	0.00022	0.00043	4.3	0.00014	0.00849	84.9	0.00017	93.34
Weatherboard	Iron	B17/2 A 0.0	106	9/03/2023	0.00266	26.6	0.0002	0.03372	337.2	0.0004	<LOD	#VALUE!	0.00052	0.01226	122.6	0.00021	
Weatherboard	Iron	B17/2 A 0.0	107	9/03/2023	0.00341	34.1	0.00022	0.03434	343.4	0.00042	0.00126	12.6	0.0002	0.01497	149.7	0.00024	
Weatherboard	Iron	B17/2 A 0.0	108	9/03/2023	0.00239	23.9	0.00017	0.03732	373.2	0.00038	0.00052	5.2	0.00016	0.01392	139.2	0.0002	150.80
Weatherboard	Iron	B17/2 B 0.0	109	9/03/2023	0.00316	31.6	0.00022	0.01811	181.1	0.00032	<LOD	#VALUE!	0.00055	0.01205	120.5	0.00023	132.48
Weatherboard	Iron	B17/2 C 0.0	110	9/03/2023	0.00335	33.5	0.00021	0.02659	265.9	0.00037	0.00063	6.3	0.0002	0.01575	157.5	0.00024	173.16
Weatherboard	Iron	B17/2 D 0.0	111	9/03/2023	0.00352	35.2	0.00023	0.01468	146.8	0.0003	0.0006	6	0.00017	0.00892	89.2	0.00021	98.07
Weatherboard	Iron	B17/2 O 0.0	112	9/03/2023	0.00359	35.9	0.00021	0.0152	152	0.00028	0.00078	7.8	0.00015	0.00772	77.2	0.00018	84.87
Weatherboard	Iron	B17/2 A 0.1	113	9/03/2023	0.00305	30.5	0.00024	0.01639	163.9	0.00031	0.00139	13.9	0.00013	0.00218	21.8	0.00015	23.97
Weatherboard	Iron	B17/2 A 0.2	114	9/03/2023	0.00158	15.8	0.00017	0.01423	142.3	0.00026	0.00055	5.5	0.00009	0.00184	18.4	0.00011	20.23
Weatherboard	Iron	B17/2 A 0.3	115	9/03/2023	0.00173	17.3	0.00014	0.0077	77	0.00016	0.00039	3.9	0.00007	0.00137	13.7	0.00008	15.06
Concrete	Iron	B19/1 A 0.0	116	9/03/2023	0.00251	25.1	0.00018	0.0208	208	0.00029	<LOD	#VALUE!	0.00058	0.0193	193	0.00024	212.18
Concrete	Iron	B19/1 B 0.0	117	9/03/2023	0.00316	31.6	0.00023	0.02529	252.9	0.00039	<LOD	#VALUE!	0.00065	0.01642	164.2	0.00027	180.52
Concrete	Iron	B19/1 C 0.0	118	9/03/2023	0.0027	27	0.00022	0.01439	143.9	0.0003	0.00078	7.8	0.0002	0.01233	123.3	0.00024	135.56
Concrete	Iron	B19/1 D 0.0	119	9/03/2023	0.00183	18.3	0.00019	0.01113	111.3	0.00024	<LOD	#VALUE!	0.00049	0.01051	105.1	0.0002	115.55
Concrete	Iron	B19/1 O 0.0	120	9/03/2023	0.00355	35.5	0.00022	0.01556	155.6	0.00029	0.00064	6.4	0.00016	0.00824	82.4	0.00019	90.59
Concrete	Iron	B19/1 A 0.1	121	9/03/2023	0.00362	36.2	0.00023	0.02663	266.3	0.00039	0.00081	8.1	0.00025	0.02404	240.4	0.00032	
Concrete	Iron	B19/1 A 0.1	122	9/03/2023	0.00343	34.3	0.00021	0.0261	261	0.00037	0.00148	14.8	0.00025	0.0252	252	0.00031	
Concrete	Iron	B19/1 A 0.1	123	9/03/2023	0.00307	30.7	0.00021	0.0268	268	0.00038	0.00092	9.2	0.00025	0.02582	258.2	0.00031	275.07
Concrete	Iron	B19/1 A 0.2	124	9/03/2023	0.00169	16.9	0.00015	0.00744	74.4	0.00017	<LOD	#VALUE!	0.00026	0.00328	32.8	0.00011	36.06
Concrete	Iron	B19/1 A 0.3	125	9/03/2023	0.00192	19.2	0.00015	0.00817	81.7	0.00018	0.00048	4.8	0.00009	0.0026	26	0.0001	28.58
Weatherboard	Iron	B21/1 A 0.0	127	9/03/2023	0.05538	553.8	0.00067	0.434	4340	0.00244	0.00292	29.2	0.00053	0.10683	1068.3	0.00078	
Weatherboard	Iron	B21/1 A 0.0	128	9/03/2023	0.06572	657.2	0.00072	0.37083	3708.3	0.0021	0.00389	38.9	0.0005	0.09832	983.2	0.00073	
Weatherboard	Iron	B21/1 A 0.0	129	9/03/2023	0.03412	341.2	0.0005	0.38114	3811.4	0.00206	<LOD	#VALUE!	0.00138	0.09174	917.4	0.00067	1088.00

Weatherboard	Iron	B21/1 B 0.0	130	9/03/2023	0.03121	312.1	0.0004	0.10206	1020.6	0.0007	0.00123	12.3	0.00019	0.01759	175.9	0.00023	193.38
Weatherboard	Iron	B21/1 C 0.0	131	9/03/2023	0.00858	85.8	0.00024	0.04003	400.3	0.00041	<LOD	#VALUE!	0.00035	0.00621	62.1	0.00015	68.27
Weatherboard	Iron	B21/1 D 0.0	132	9/03/2023	0.00239	23.9	0.00022	0.01268	126.8	0.00028	<LOD	#VALUE!	0.00037	0.00375	37.5	0.00015	41.23
Weatherboard	Iron	B21/1 O 0.0	133	9/03/2023	0.00236	23.6	0.00018	0.01339	133.9	0.00025	0.00059	5.9	0.00012	0.00436	43.6	0.00014	47.93
Weatherboard	Iron	B21/1 A 0.1	134	9/03/2023	0.01419	141.9	0.00029	0.11277	1127.7	0.00076	0.00096	9.6	0.0002	0.01947	194.7	0.00024	214.05
Weatherboard	Iron	B21/1 A 0.2	135	9/03/2023	0.00126	12.6	0.00015	0.00419	41.9	0.00014	0.00029	2.9	0.00007	0.00148	14.8	0.00009	16.27
Weatherboard	Iron	B21/1 A 0.3	136	9/03/2023	0.00145	14.5	0.00016	0.00444	44.4	0.00015	0.00064	6.4	0.00009	0.00238	23.8	0.00011	26.17
Weatherboard	Iron	B21/1 B 0.1	137	9/03/2023	0.00765	76.5	0.00026	0.04519	451.9	0.0005	0.00066	6.6	0.00014	0.00643	64.3	0.00017	70.69
ACM	Iron	B22/1 A 0.0	4	13/03/2023	0.00105	10.5	0.00016	0.07869	786.9	0.00062	0.00035	3.5	0.00009	0.00203	20.3	0.00011	22.32
ACM	Iron	B22/1 B 0.0	5	13/03/2023	<LOD	#VALUE!	0.0003	0.03329	332.9	0.00029	<LOD	#VALUE!	0.00016	0.00107	10.7	0.00007	11.76
ACM	Iron	B22/1 C 0.0	6	13/03/2023	0.00118	11.8	0.00014	0.01064	106.4	0.0002	0.00025	2.5	0.00007	0.00181	18.1	0.00009	19.90
ACM	Iron	B22/1 D 0.0	7	13/03/2023	0.00126	12.6	0.00014	0.01206	120.6	0.0002	<LOD	#VALUE!	0.00024	0.00261	26.1	0.0001	28.69
ACM	Iron	B22/1 A 0.1	8	13/03/2023	0.00217	21.7	0.00016	0.01748	174.8	0.00026	0.00034	3.4	0.00008	0.00243	24.3	0.0001	26.72
ACM	Iron	B22/1 A 0.2	9	13/03/2023	0.00161	16.1	0.00016	0.01071	107.1	0.00021	0.00041	4.1	0.00008	0.00163	16.3	0.0001	17.92
Weatherboard	Iron	B21/2 A 0.0	10	13/03/2023	0.00977	97.7	0.00022	0.36495	3649.5	0.0015	0.00084	8.4	0.00025	0.0462	462	0.00033	
Weatherboard	Iron	B21/2 A 0.0	11	13/03/2023	0.00883	88.3	0.00021	0.39939	3993.9	0.00157	0.00133	13.3	0.00024	0.04253	425.3	0.00031	
Weatherboard	Iron	B21/2 A 0.0	12	13/03/2023	0.00777	77.7	0.0002	0.38207	3820.7	0.00151	0.00162	16.2	0.00031	0.07736	773.6	0.00044	
Weatherboard	Iron	B21/2 A 0.0	13	13/03/2023	0.0069	69	0.00019	0.38538	3853.8	0.0015	0.001	10	0.00023	0.04169	416.9	0.0003	571.08
Weatherboard	Iron	B21/2 B 0.0	14	13/03/2023	0.01385	138.5	0.00025	0.02249	224.9	0.00027	0.00053	5.3	0.00011	0.00675	67.5	0.00013	74.21
Weatherboard	Iron	B21/2 C 0.0	15	13/03/2023	0.00252	25.2	0.00013	0.01083	108.3	0.00017	0.00025	2.5	0.00007	0.00288	28.8	0.00009	31.66
Weatherboard	Iron	B21/2 D 0.0	16	13/03/2023	0.00116	11.6	0.00012	0.00631	63.1	0.00014	0.00034	3.4	0.00006	0.00148	14.8	0.00008	16.27
Weatherboard	Iron	B21/2 O 0.0	17	13/03/2023	<LOD	#VALUE!	0.00034	0.00417	41.7	0.00012	0.00027	2.7	0.00006	0.0011	11	0.00008	12.09
Weatherboard	Iron	B21/2 A 0.1	18	13/03/2023	0.00532	53.2	0.00027	0.0585	585	0.00064	0.00095	9.5	0.00021	0.01356	135.6	0.00026	149.08
Weatherboard	Iron	B21/2 A 0.2	19	13/03/2023	0.00427	42.7	0.00019	0.01747	174.7	0.00027	0.00053	5.3	0.00011	0.00498	49.8	0.00013	54.75
Weatherboard	Iron	B23/1 B 0.0	20	13/03/2023	0.00153	15.3	0.00015	0.11585	1158.5	0.00073	<LOD	#VALUE!	0.00063	0.02641	264.1	0.00027	290.35
Weatherboard	Iron	B23/1 C 0.0	21	13/03/2023	0.00111	11.1	0.00014	0.01728	172.8	0.00025	<LOD	#VALUE!	0.00029	0.00405	40.5	0.00012	44.53
Weatherboard	Iron	B23/1 D 0.0	22	13/03/2023	0.00063	6.3	0.00014	0.00938	93.8	0.00019	<LOD	#VALUE!	0.00024	0.0022	22	0.0001	24.19
Weatherboard	Iron	B23/1 O 0.0	23	13/03/2023	0.001	10	0.00014	0.01012	101.2	0.00019	0.00027	2.7	0.00008	0.00216	21.6	0.0001	23.75
Weatherboard	Iron	B23/1 B 0.1	24	13/03/2023	0.00199	19.9	0.00017	0.04266	426.6	0.00042	<LOD	#VALUE!	0.00047	0.01306	130.6	0.0002	143.58
Weatherboard	Iron	B23/1 B 0.2	25	13/03/2023	0.00184	18.4	0.00017	0.01075	107.5	0.00022	<LOD	#VALUE!	0.00044	0.00987	98.7	0.00018	108.51
ACM	Iron	B26/1 A 0.0	27	13/03/2023	0.00203	20.3	0.00013	0.01514	151.4	0.0002	0.00284	28.4	0.00021	0.03257	325.7	0.00026	358.07
ACM	Iron	B26/1 B 0.0	28	13/03/2023	0.00276	27.6	0.00013	0.00682	68.2	0.00014	0.0011	11	0.00008	0.00395	39.5	0.0001	43.43
ACM	Iron	B26/1 C 0.0	29	13/03/2023	0.00434	43.4	0.00019	0.00987	98.7	0.0002	0.00111	11.1	0.00012	0.0054	54	0.00014	59.37
ACM	Iron	B26/1 D 0.0	30	13/03/2023	0.00191	19.1	0.00014	0.00493	49.3	0.00014	0.0004	4	0.00007	0.00183	18.3	0.00009	20.12
ACM	Iron	B26/1 O 0.0	31	13/03/2023	0.00166	16.6	0.00014	0.00517	51.7	0.00014	0.00042	4.2	0.00007	0.00182	18.2	0.00009	20.01
ACM	Iron	B26/2 A 0.0	32	13/03/2023	0.00464	46.4	0.00023	0.01647	164.7	0.00029	0.00209	20.9	0.00025	0.02388	238.8	0.0003	262.54
ACM	Iron	B26/2 B 0.0	33	13/03/2023	0.00315	31.5	0.00017	0.00819	81.9	0.00018	<LOD	#VALUE!	0.0003	0.00421	42.1	0.00012	46.28
ACM	Iron	B26/2 C 0.0	34	13/03/2023	0.00289	28.9	0.00018	0.00953	95.3	0.00021	0.00032	3.2	0.0001	0.00386	38.6	0.00013	42.44
ACM	Iron	B26/2 D 0.0	35	13/03/2023	0.0033	33	0.00017	0.00964	96.4	0.00019	0.00049	4.9	0.00012	0.00682	68.2	0.00014	74.98
ACM	Iron	B26/2 O 0.0	36	13/03/2023	0.00247	24.7	0.00017	0.00726	72.6	0.00018	<LOD	#VALUE!	0.00028	0.003	30	0.00011	32.98
Concrete	Iron	S3/1 A 0.0	38	13/03/2023	0.00171	17.1	0.00017	0.01606	160.6	0.00027	<LOD	#VALUE!	0.00029	0.00311	31.1	0.00012	
Concrete	Iron	S3/1 A 0.0	39	13/03/2023	0.00251	25.1	0.00017	0.02119	211.9	0.00029	<LOD	#VALUE!	0.00029	0.00389	38.9	0.00012	
Concrete	Iron	S3/1 A 0.0	40	13/03/2023	0.00276	27.6	0.0002	0.0214	214	0.00033	<LOD	#VALUE!	0.00034	0.00419	41.9	0.00014	41.01
Concrete	Iron	S3/1 B 0.0	41	13/03/2023	0.02116	211.6	0.00031	0.02548	254.8	0.0003	0.00046	4.6	0.00009	0.00372	37.2	0.00011	40.90
Concrete	Iron	S3/1 C 0.0	42	13/03/2023	0.00201	20.1	0.00016	0.01479	147.9	0.00024	0.0003	3	0.00008	0.00239	23.9	0.0001	26.28
Concrete	Iron	S3/1 D 0.0	43	13/03/2023	0.00184	18.4	0.00015	0.01047	104.7	0.00019	0.00025	2.5	0.00008	0.00236	23.6	0.0001	25.95
Concrete	Iron	S3/1 O 0.0	44	13/03/2023	0.00167	16.7	0.00018	0.00895	89.5	0.00022	0.00031	3.1	0.00009	0.00217	21.7	0.00012	23.86
Concrete	Iron	S3/1 A 0.1	45	13/03/2023	0.00564	56.4	0.00022	0.02881	288.1	0.00036	0.00082	8.2	0.00013	0.00648	64.8	0.00016	71.24
Concrete	Iron	S3/1 A 0.2	46	13/03/2023	0.00457	45.7	0.00019	0.02426	242.6	0.0003	0.00062	6.2	0.0001	0.00449	44.9	0.00012	49.36
Weatherboard	Iron	B27/1 A 0.0	47	13/03/2023	0.00266	26.6	0.00019	0.31665	3166.5	0.00154	<LOD	#VALUE!	0.00101	0.06518	651.8	0.00047	
Weatherboard	Iron	B27/1 A 0.0	48	13/03/2023	0.00316	31.6	0.00019	0.38031	3803.1	0.00174	0.00139	13.9	0.00031	0.05488	548.8	0.00041	
Weatherboard	Iron	B27/1 A 0.0	49	13/03/2023	0.00266	26.6	0.00019	0.3475	3475	0.00166	<LOD	#VALUE!	0.00182	0.22212	2221.2	0.00108	
Weatherboard	Iron	B27/1 A 0.0	50	13/03/2023	0.00344	34.4	0.00019	0.38271	3827.1	0.00173	0.00261	26.1	0.00046	0.12822	1282.2	0.0007	

Weatherboard	Iron	B27/1 A 0.0	51	13/03/2023	0.00347	34.7	0.00019	0.32587	3258.7	0.00155	<LOD	#VALUE!	0.001	0.06556	655.6	0.00046	1178.47
Weatherboard	Iron	B27/1 B 0.0	52	13/03/2023	0.00133	13.3	0.00014	0.01617	161.7	0.00024	<LOD	#VALUE!	0.00028	0.00407	40.7	0.00012	44.75
Weatherboard	Iron	B27/1 C 0.0	53	13/03/2023	0.00162	16.2	0.00018	0.00884	88.4	0.00021	0.00035	3.5	0.00009	0.002	20	0.00011	21.99
Weatherboard	Iron	B27/1 D 0.0	54	13/03/2023	0.00134	13.4	0.00015	0.01019	101.9	0.00021	0.00047	4.7	0.00009	0.00221	22.1	0.0001	24.30
Weatherboard	Iron	B27/1 O 0.0	55	13/03/2023	0.00103	10.3	0.00017	0.01644	164.4	0.00027	0.0003	3	0.0001	0.00301	30.1	0.00012	33.09
Weatherboard	Iron	B27/1 A 0.1	56	13/03/2023	0.00214	21.4	0.00018	0.02915	291.5	0.00037	0.00035	3.5	0.0001	0.00305	30.5	0.00012	33.53
Weatherboard	Iron	B27/1 A 0.2	57	13/03/2023	0.00128	12.8	0.00016	0.01119	111.9	0.00022	0.00029	2.9	0.00008	0.00156	15.6	0.0001	17.15
Concrete	Tile	B28/1 A 0.0	59	13/03/2023	0.00759	75.9	0.00022	0.02677	267.7	0.00032	<LOD	#VALUE!	0.0012	0.10556	1055.6	0.00062	
Concrete	Tile	B28/1 A 0.0	60	13/03/2023	0.00737	73.7	0.00022	0.01516	151.6	0.00025	<LOD	#VALUE!	0.0004	0.00878	87.8	0.00016	
Concrete	Tile	B28/1 A 0.0	61	13/03/2023	0.00721	72.1	0.00023	0.01377	137.7	0.00025	<LOD	#VALUE!	0.00041	0.0081	81	0.00017	
Concrete	Tile	B28/1 A 0.0	62	13/03/2023	0.00729	72.9	0.00022	0.01415	141.5	0.00024	<LOD	#VALUE!	0.00039	0.00797	79.7	0.00016	358.43
Concrete	Tile	B28/1 B 0.0	63	13/03/2023	0.00337	33.7	0.00017	0.0096	96	0.00019	0.00037	3.7	0.00009	0.00328	32.8	0.00011	36.06
Concrete	Tile	B28/1 C 0.0	64	13/03/2023	0.00505	50.5	0.00021	0.00898	89.8	0.00021	<LOD	#VALUE!	0.00027	0.00246	24.6	0.00011	27.05
Concrete	Tile	B28/1 D 0.0	65	13/03/2023	0.00381	38.1	0.00023	0.00838	83.8	0.00023	<LOD	#VALUE!	0.00031	0.0024	24	0.00013	26.39
Concrete	Tile	B28/1 O 0.0	66	13/03/2023	0.00167	16.7	0.00014	0.00784	78.4	0.00017	0.00035	3.5	0.00007	0.00194	19.4	0.00009	21.33
Concrete	Tile	B28/1 A 0.1	67	13/03/2023	0.00549	54.9	0.00024	0.01034	103.4	0.00024	<LOD	#VALUE!	0.00038	0.00522	52.2	0.00016	57.39
Concrete	Tile	B28/1 A 0.2	68	13/03/2023	0.00259	25.9	0.00016	0.00869	86.9	0.00018	0.00029	2.9	0.00007	0.00175	17.5	0.00009	19.24
Concrete	Tile	B28/2 A 0.0	69	13/03/2023	0.01806	180.6	0.0003	0.01169	116.9	0.00021	<LOD	#VALUE!	0.00034	0.00678	67.8	0.00014	
Concrete	Tile	B28/2 A 0.0	70	13/03/2023	0.01445	144.5	0.00027	0.01328	132.8	0.00022	<LOD	#VALUE!	0.00051	0.01904	190.4	0.00022	
Concrete	Tile	B28/2 A 0.0	71	13/03/2023	0.0186	186	0.00029	0.01221	122.1	0.00021	<LOD	#VALUE!	0.00034	0.00691	69.1	0.00014	
Concrete	Tile	B28/2 A 0.0	72	13/03/2023	0.01774	177.4	0.00029	0.0118	118	0.00021	<LOD	#VALUE!	0.00034	0.00692	69.2	0.00014	
Concrete	Tile	B28/2 A 0.0	73	13/03/2023	0.01363	136.3	0.00026	0.01158	115.8	0.00021	0.00034	3.4	0.00011	0.0057	57	0.00013	
Concrete	Tile	B28/2 A 0.0	74	13/03/2023	0.01452	145.2	0.00027	0.01161	116.1	0.00021	<LOD	#VALUE!	0.00032	0.00608	60.8	0.00013	94.24
Concrete	Tile	B28/2 B 0.0	75	13/03/2023	0.01173	117.3	0.00024	0.00845	84.5	0.00017	0.00032	3.2	0.00008	0.00245	24.5	0.0001	26.94
Concrete	Tile	B28/2 C 0.0	76	13/03/2023	0.00143	14.3	0.00013	0.00559	55.9	0.00013	0.00027	2.7	0.00006	0.0013	13	0.00008	14.29
Concrete	Tile	B28/2 D 0.0	77	13/03/2023	0.00209	20.9	0.00015	0.0086	86	0.00018	<LOD	#VALUE!	0.00024	0.00234	23.4	0.0001	25.73
Concrete	Tile	B28/2 O 0.0	78	13/03/2023	0.00184	18.4	0.00015	0.00811	81.1	0.00018	0.00036	3.6	0.00007	0.00145	14.5	0.00009	15.94
Concrete	Tile	B28/2 A 0.1	79	13/03/2023	0.01202	120.2	0.00025	0.0131	131	0.00022	0.00038	3.8	0.0001	0.00409	40.9	0.00012	44.97
Concrete	Tile	B28/2 A 0.2	80	13/03/2023	0.00117	11.7	0.00015	0.00654	65.4	0.00016	0.00047	4.7	0.00008	0.00172	17.2	0.00009	18.91
Stone	Iron	B30/1 A 0.0	84	13/03/2023	0.00116	11.6	0.00014	0.00847	84.7	0.00018	0.0026	26	0.00012	0.00453	45.3	0.00012	
Stone	Iron	B30/1 A 0.0	85	13/03/2023	0.00133	13.3	0.00014	0.00965	96.5	0.00018	0.00292	29.2	0.00011	0.00513	51.3	0.00012	
Stone	Iron	B30/1 A 0.0	86	13/03/2023	0.00101	10.1	0.00013	0.00941	94.1	0.00017	0.00265	26.5	0.00011	0.00488	48.8	0.00011	53.28
Stone	Iron	B30/1 B 0.0	87	13/03/2023	0.00106	10.6	0.00013	0.00766	76.6	0.00016	0.00036	3.6	0.00007	0.00234	23.4	0.00009	25.73
Stone	Iron	B30/1 C 0.0	88	13/03/2023	0.00087	8.7	0.00012	0.00683	68.3	0.00015	0.00035	3.5	0.00007	0.00176	17.6	0.00008	19.35
Stone	Iron	B30/1 D 0.0	89	13/03/2023	0.00116	11.6	0.00014	0.00867	86.7	0.00018	0.00031	3.1	0.00008	0.00229	22.9	0.0001	25.18
Stone	Iron	B30/1 O 0.0	90	13/03/2023	0.00131	13.1	0.00014	0.00604	60.4	0.00015	0.0003	3	0.00007	0.00174	17.4	0.00009	19.13
Stone	Iron	B30/1 A 0.1	91	13/03/2023	0.0013	13	0.00014	0.00694	69.4	0.00016	0.00288	28.8	0.0001	0.00324	32.4	0.0001	35.62
Stone	Iron	B30/1 A 0.2	92	13/03/2023	0.00167	16.7	0.00014	0.0048	48	0.00014	0.00052	5.2	0.00007	0.00135	13.5	0.00009	14.84
Stone	Iron	B30/2 A 0.0	93	13/03/2023	0.00217	21.7	0.00015	0.0388	388	0.00036	0.00074	7.4	0.00011	0.00721	72.1	0.00014	
Stone	Iron	B30/2 A 0.0	94	13/03/2023	0.00174	17.4	0.00013	0.03458	345.8	0.00031	0.00038	3.8	0.00009	0.0049	49	0.00011	
Stone	Iron	B30/2 A 0.0	95	13/03/2023	0.00202	20.2	0.00014	0.03621	362.1	0.00033	0.00064	6.4	0.0001	0.00549	54.9	0.00012	64.50
Stone	Iron	B30/2 B 0.0	96	13/03/2023	0.00126	12.6	0.00016	0.00946	94.6	0.00021	0.00078	7.8	0.00009	0.00256	25.6	0.00011	28.14
Stone	Iron	B30/2 C 0.0	97	13/03/2023	0.00172	17.2	0.0002	0.00705	70.5	0.00022	0.00051	5.1	0.0001	0.00212	21.2	0.00013	23.31
Stone	Iron	B30/2 D 0.0	98	13/03/2023	0.00223	22.3	0.00014	0.00805	80.5	0.00016	0.00097	9.7	0.00008	0.00239	23.9	0.00009	26.28
Stone	Iron	B30/2 O 0.0	99	13/03/2023	0.00183	18.3	0.00019	0.0068	68	0.0002	0.00074	7.4	0.0001	0.00193	19.3	0.00012	21.22
Stone	Iron	B30/2 A 0.1	100	13/03/2023	0.00307	30.7	0.00016	0.02529	252.9	0.00029	0.00093	9.3	0.0001	0.00449	44.9	0.00012	49.36
Stone	Iron	B30/2 A 0.2	101	13/03/2023	0.00296	29.6	0.00016	0.00727	72.7	0.00016	0.00108	10.8	0.00008	0.00219	21.9	0.0001	24.08
Stone	Iron	B33/1 A 0.0	102	13/03/2023	0.00312	31.2	0.00021	0.0292	292	0.0004	<LOD	#VALUE!	0.0006	0.01545	154.5	0.00025	
Stone	Iron	B33/1 A 0.0	103	13/03/2023	0.00257	25.7	0.00019	0.03002	300.2	0.00038	0.00079	7.9	0.00018	0.01389	138.9	0.00022	
Stone	Iron	B33/1 A 0.0	104	13/03/2023	0.00302	30.2	0.00016	0.04762	476.2	0.00042	0.0005	5	0.00016	0.01603	160.3	0.0002	166.27
Stone	Iron	B33/1 B 0.0	105	13/03/2023	0.00145	14.5	0.00016	0.01182	118.2	0.00022	<LOD	#VALUE!	0.00036	0.00648	64.8	0.00015	71.24
Stone	Iron	B33/1 C 0.0	106	13/03/2023	0.00211	21.1	0.0002	0.01037	103.7	0.00024	0.00055	5.5	0.00011	0.00303	30.3	0.00013	33.31
Stone	Iron	B33/1 D 0.0	107	13/03/2023	0.00258	25.8	0.00015	0.00923	92.3	0.00018	0.00049	4.9	0.00008	0.00294	29.4	0.0001	32.32

Stone	Iron	B33/1 O 0.0	108	13/03/2023	0.00229	22.9	0.00015	0.00615	61.5	0.00015	0.00044	4.4	0.00007	0.00155	15.5	0.00009	17.04
Stone	Iron	B33/1 A 0.1	109	13/03/2023	0.00377	37.7	0.00017	0.01696	169.6	0.00024	0.00079	7.9	0.00015	0.01298	129.8	0.00018	142.70
Stone	Iron	B33/1 A 0.2	110	13/03/2023	0.00353	35.3	0.00016	0.00835	83.5	0.00017	0.00074	7.4	0.00007	0.00153	15.3	0.00009	16.82
Stone	Iron	B33/2 A 0.0	111	13/03/2023	0.00399	39.9	0.00016	0.01708	170.8	0.00023	<LOD	#VALUE!	0.00041	0.01196	119.6	0.00017	131.49
Stone	Iron	B33/2 B 0.0	112	13/03/2023	0.00372	37.2	0.00017	0.01675	167.5	0.00024	0.00054	5.4	0.00012	0.00844	84.4	0.00015	92.79
Stone	Iron	B33/2 C 0.0	113	13/03/2023	0.00226	22.6	0.00016	0.01129	112.9	0.00021	0.00064	6.4	0.00009	0.00318	31.8	0.00011	
Stone	Iron	B33/2 C 0.0	114	13/03/2023	0.00306	30.6	0.00017	0.01139	113.9	0.00021	0.00074	7.4	0.0001	0.00378	37.8	0.00012	
Stone	Iron	B33/2 C 0.0	115	13/03/2023	0.00257	25.7	0.00014	0.01081	108.1	0.00018	0.00066	6.6	0.00008	0.00366	36.6	0.0001	38.92
Stone	Iron	B33/2 D 0.0	116	13/03/2023	0.00271	27.1	0.00016	0.01003	100.3	0.0002	0.00052	5.2	0.00009	0.00294	29.4	0.00011	32.32
Stone	Iron	B33/2 O 0.0	117	13/03/2023	0.00215	21.5	0.00016	0.01319	131.9	0.00022	0.00057	5.7	0.00009	0.00269	26.9	0.00011	29.57
Stone	Iron	B33/2 A 0.1	118	13/03/2023	0.00436	43.6	0.00018	0.01609	160.9	0.00024	0.00071	7.1	0.00014	0.0103	103	0.00017	113.24
Stone	Iron	B33/2 A 0.2	119	13/03/2023	0.00328	32.8	0.00016	0.01057	105.7	0.00019	0.00074	7.4	0.00012	0.00832	83.2	0.00015	91.47
Concrete	Iron	B36/1 A 0.0	120	13/03/2023	0.00317	31.7	0.00017	0.0152	152	0.00024	0.00075	7.5	0.00009	0.00306	30.6	0.00011	
Concrete	Iron	B36/1 A 0.0	121	13/03/2023	0.00309	30.9	0.00017	0.01661	166.1	0.00025	0.00071	7.1	0.00009	0.00308	30.8	0.00011	
Concrete	Iron	B36/1 A 0.0	122	13/03/2023	0.00323	32.3	0.00019	0.01798	179.8	0.00028	0.00083	8.3	0.0001	0.00301	30.1	0.00012	
Concrete	Iron	B36/1 A 0.0	123	13/03/2023	0.00271	27.1	0.00019	0.01893	189.3	0.0003	0.0009	9	0.00011	0.00343	34.3	0.00013	34.58
Concrete	Iron	B36/1 B 0.0	124	13/03/2023	0.00162	16.2	0.00014	0.00571	57.1	0.00014	0.00047	4.7	0.00007	0.00188	18.8	0.00009	20.67
Concrete	Iron	B36/1 D 0.0	126	13/03/2023	0.0016	16	0.00014	0.00501	50.1	0.00014	0.00047	4.7	0.00007	0.00153	15.3	0.00009	16.82
Concrete	Iron	B36/1 O 0.0	127	13/03/2023	0.00176	17.6	0.00016	0.0061	61	0.00017	0.00056	5.6	0.00008	0.00135	13.5	0.00009	14.84
Concrete	Iron	B36/1 A 0.1	128	13/03/2023	0.00277	27.7	0.00016	0.00983	98.3	0.00019	0.0009	9	0.00009	0.00228	22.8	0.0001	25.07
Concrete	Iron	B36/1 A 0.2	129	13/03/2023	0.00341	34.1	0.00017	0.00901	90.1	0.00019	0.00069	6.9	0.00009	0.00235	23.5	0.0001	25.84
Weatherboard	Iron	B37/1 A 0.0	130	13/03/2023	0.00247	24.7	0.00016	0.00955	95.5	0.00019	0.00179	17.9	0.00012	0.00725	72.5	0.00014	
Weatherboard	Iron	B37/1 A 0.0	131	13/03/2023	0.0028	28	0.00017	0.01084	108.4	0.00021	0.00198	19.8	0.00014	0.00864	86.4	0.00016	
Weatherboard	Iron	B37/1 A 0.0	132	13/03/2023	0.00298	29.8	0.00018	0.0107	107	0.00021	0.00205	20.5	0.00014	0.00847	84.7	0.00016	89.27
Weatherboard	Iron	B37/1 B 0.0	133	13/03/2023	0.00093	9.3	0.00012	0.00518	51.8	0.00013	0.00041	4.1	0.00006	0.00131	13.1	0.00008	14.40
Weatherboard	Iron	B37/1 C 0.0	134	13/03/2023	0.00185	18.5	0.00015	0.00628	62.8	0.00016	0.00051	5.1	0.00007	0.00145	14.5	0.00009	15.94
Weatherboard	Iron	B37/1 D 0.0	135	13/03/2023	0.00204	20.4	0.00015	0.00534	53.4	0.00015	0.00041	4.1	0.00007	0.00149	14.9	0.00009	16.38
Weatherboard	Iron	B37/1 O 0.0	136	13/03/2023	0.00157	15.7	0.00014	0.00487	48.7	0.00013	0.00039	3.9	0.00006	0.00115	11.5	0.00008	12.64
Weatherboard	Iron	B37/1 A 0.1	137	13/03/2023	0.00313	31.3	0.00019	0.00676	67.6	0.00018	0.00085	8.5	0.0001	0.00263	26.3	0.00011	28.91
Weatherboard	Iron	B37/1 A 0.2	138	13/03/2023	0.00223	22.3	0.00016	0.00705	70.5	0.00017	0.00106	10.6	0.0001	0.00377	37.7	0.00012	41.45
Iron	Iron	B39/1 A 0.0	140	13/03/2023	0.00141	14.1	0.00013	0.0072	72	0.00015	0.00032	3.2	0.00006	0.00141	14.1	0.00008	
Iron	Iron	B39/1 A 0.0	141	13/03/2023	0.00146	14.6	0.00013	0.00835	83.5	0.00016	0.00042	4.2	0.00006	0.00136	13.6	0.00008	
Iron	Iron	B39/1 A 0.0	142	13/03/2023	0.00146	14.6	0.00014	0.007	70	0.00016	0.00033	3.3	0.00006	0.00119	11.9	0.00008	14.51
Iron	Iron	B39/1 B 0.0	143	13/03/2023	0.00149	14.9	0.00014	0.00564	56.4	0.00014	0.00044	4.4	0.00007	0.00152	15.2	0.00008	16.71
Iron	Iron	B39/1 C 0.0	144	13/03/2023	0.00143	14.3	0.00014	0.00663	66.3	0.00015	0.00045	4.5	0.00007	0.00109	10.9	0.00008	11.98
Iron	Iron	B39/1 D 0.0	145	13/03/2023	0.00141	14.1	0.00014	0.00668	66.8	0.00015	0.00053	5.3	0.00006	0.00095	9.5	0.00008	10.44
Iron	Iron	B39/1 O 0.0	146	13/03/2023	0.00159	15.9	0.00014	0.00671	67.1	0.00015	0.00037	3.7	0.00007	0.00123	12.3	0.00008	13.52
Iron	Iron	B39/1 A 0.1	147	13/03/2023	0.00257	25.7	0.00015	0.00665	66.5	0.00015	0.00057	5.7	0.00007	0.00146	14.6	0.00008	16.05
Iron	Iron	B39/1 A 0.2	148	13/03/2023	0.00287	28.7	0.00017	0.0068	68	0.00017	0.00043	4.3	0.00008	0.00166	16.6	0.0001	18.25
Weatherboard	Iron	B38/1 A 0.0	149	13/03/2023	0.00177	17.7	0.00014	0.07617	761.7	0.00051	0.00093	9.3	0.00016	0.01691	169.1	0.0002	
Weatherboard	Iron	B38/1 A 0.0	150	13/03/2023	0.00176	17.6	0.00014	0.07673	767.3	0.00051	0.0009	9	0.00016	0.01702	170.2	0.0002	
Weatherboard	Iron	B38/1 A 0.0	151	13/03/2023	0.00185	18.5	0.00015	0.05551	555.1	0.00045	<LOD	#VALUE!	0.00046	0.01467	146.7	0.00019	178.10
Weatherboard	Iron	B38/1 B 0.0	152	13/03/2023	0.00173	17.3	0.00014	0.00942	94.2	0.00017	0.00028	2.8	0.00009	0.00392	39.2	0.00011	43.10
Weatherboard	Iron	B38/1 C 0.0	153	13/03/2023	0.00194	19.4	0.00016	0.00702	70.2	0.00018	0.00047	4.7	0.00009	0.00242	24.2	0.00011	26.61
Weatherboard	Iron	B38/1 D 0.0	154	13/03/2023	0.00124	12.4	0.00014	0.00608	60.8	0.00015	0.0003	3	0.00007	0.00195	19.5	0.00009	21.44
Weatherboard	Iron	B38/1 O 0.0	155	13/03/2023	0.00132	13.2	0.00016	0.00553	55.3	0.00017	0.00036	3.6	0.00008	0.00181	18.1	0.0001	19.90
Weatherboard	Iron	B38/1 A 0.1	156	13/03/2023	0.00395	39.5	0.0002	0.01227	122.7	0.00023	0.00082	8.2	0.00013	0.00692	69.2	0.00016	76.08
Weatherboard	Iron	B38/1 A 0.2	157	13/03/2023	0.00452	45.2	0.00019	0.0073	73	0.00017	0.00048	4.8	0.00008	0.00155	15.5	0.0001	17.04
Weatherboard	Iron	B42/1 A 0.0	158	13/03/2023	0.00265	26.5	0.00017	0.01725	172.5	0.00026	0.00076	7.6	0.00011	0.00452	45.2	0.00013	49.69
Weatherboard	Iron	B42/1 B 0.0	159	13/03/2023	0.00176	17.6	0.00014	0.00597	59.7	0.00015	0.00056	5.6	0.00008	0.00221	22.1	0.00009	24.30
Weatherboard	Iron	B42/1 C 0.0	160	13/03/2023	0.00117	11.7	0.00013	0.0051	51	0.00013	0.00025	2.5	0.00006	0.00132	13.2	0.00008	14.51
Weatherboard	Iron	B42/1 D 0.0	161	13/03/2023	0.00245	24.5	0.00017	0.00543	54.3	0.00016	0.00051	5.1	0.00008	0.00192	19.2	0.0001	21.11
Weatherboard	Iron	B42/1 O 0.0	162	13/03/2023	0.00218	21.8	0.00018	0.00499	49.9	0.00016	0.00032	3.2	0.00008	0.00172	17.2	0.0001	18.91

Weatherboard	Iron	B42/1 A 0.1	163	13/03/2023	0.00361	36.1	0.0002	0.00664	66.4	0.00019	0.00079	7.9	0.0001	0.00274	27.4	0.00012	
Weatherboard	Iron	B42/1 A 0.1	164	13/03/2023	0.00299	29.9	0.00018	0.00801	80.1	0.00019	0.0009	9	0.0001	0.00314	31.4	0.00012	
Weatherboard	Iron	B42/1 A 0.1	165	13/03/2023	0.00359	35.9	0.00018	0.00703	70.3	0.00017	0.00084	8.4	0.00009	0.00252	25.2	0.00011	30.78
Weatherboard	Iron	B42/1 A 0.2	166	13/03/2023	0.00106	10.6	0.00015	0.00377	37.7	0.00014	0.00043	4.3	0.00008	0.00158	15.8	0.00009	17.37
Weatherboard	Iron	B42/2 A 0.0	167	13/03/2023	0.00205	20.5	0.00028	0.00838	83.8	0.0003	0.00062	6.2	0.00018	0.00519	51.9	0.00021	
Weatherboard	Iron	B42/2 A 0.0	168	13/03/2023	0.00348	34.8	0.00022	0.01279	127.9	0.00027	0.00075	7.5	0.00015	0.00699	69.9	0.00018	
Weatherboard	Iron	B42/2 A 0.0	169	13/03/2023	0.00319	31.9	0.0002	0.01215	121.5	0.00025	<LOD	#VALUE!	0.00044	0.00856	85.6	0.00018	76.01
Weatherboard	Iron	B42/2 B 0.0	170	13/03/2023	0.00223	22.3	0.00016	0.01122	112.2	0.00021	0.00052	5.2	0.00009	0.00322	32.2	0.00011	35.40
Weatherboard	Iron	B42/2 C 0.0	171	13/03/2023	0.00142	14.2	0.00016	0.0065	65	0.00017	<LOD	#VALUE!	0.00024	0.00192	19.2	0.0001	21.11
Weatherboard	Iron	B42/2 D 0.0	172	13/03/2023	0.00211	21.1	0.00016	0.00767	76.7	0.00017	0.00029	2.9	0.00009	0.00283	28.3	0.00011	31.11
Weatherboard	Iron	B42/2 A 0.1	4	14/03/2023	0.00264	26.4	0.00017	0.0089	89	0.00019	0.00072	7.2	0.00011	0.00475	47.5	0.00013	52.22
Weatherboard	Iron	B42/2 A 0.2	5	14/03/2023	0.00202	20.2	0.00015	0.00654	65.4	0.00016	0.00058	5.8	0.00009	0.0027	27	0.0001	29.68
Weatherboard	Iron	B44/1 A 0.0	6	14/03/2023	0.00245	24.5	0.00015	0.02165	216.5	0.00027	0.00056	5.6	0.00009	0.00332	33.2	0.00011	
Weatherboard	Iron	B44/1 A 0.0	7	14/03/2023	0.00213	21.3	0.00016	0.01594	159.4	0.00025	0.00071	7.1	0.0001	0.00316	31.6	0.00011	
Weatherboard	Iron	B44/1 A 0.0	8	14/03/2023	0.00162	16.2	0.00014	0.01978	197.8	0.00026	0.00032	3.2	0.00009	0.00416	41.6	0.00012	38.99
Weatherboard	Iron	B44/1 B 0.0	9	14/03/2023	0.00231	23.1	0.00016	0.01167	116.7	0.00021	0.00051	5.1	0.00008	0.0025	25	0.0001	27.49
Weatherboard	Iron	B44/1 C 0.0	10	14/03/2023	0.00234	23.4	0.00017	0.01434	143.4	0.00025	0.00032	3.2	0.00009	0.00232	23.2	0.00011	25.51
Weatherboard	Iron	B44/1 D 0.0	11	14/03/2023	0.00207	20.7	0.00014	0.00937	93.7	0.00017	0.00049	4.9	0.00007	0.00185	18.5	0.00009	20.34
Weatherboard	Iron	B44/1 O 0.0	12	14/03/2023	0.00139	13.9	0.00014	0.00782	78.2	0.00017	0.00052	5.2	0.00007	0.0015	15	0.00009	16.49
Weatherboard	Iron	B44/1 A 0.1	13	14/03/2023	0.00314	31.4	0.00019	0.01285	128.5	0.00024	0.00075	7.5	0.00011	0.0037	37	0.00013	40.68
Weatherboard	Iron	B44/1 A 0.2	14	14/03/2023	0.00269	26.9	0.00017	0.00881	88.1	0.00019	0.00069	6.9	0.00009	0.00253	25.3	0.00011	27.81
Weatherboard	Iron	B44/2 A 0.0	15	14/03/2023	0.00167	16.7	0.00017	0.01266	126.6	0.00025	0.00082	8.2	0.00012	0.00524	52.4	0.00015	57.61
Weatherboard	Iron	B44/2 B 0.0	16	14/03/2023	0.00195	19.5	0.00016	0.0075	75	0.00017	0.00048	4.8	0.00008	0.00212	21.2	0.0001	23.31
Weatherboard	Iron	B44/2 C 0.0	17	14/03/2023	0.00172	17.2	0.00014	0.0075	75	0.00016	0.00056	5.6	0.00007	0.00177	17.7	0.00009	19.46
Weatherboard	Iron	B44/2 D 0.0	18	14/03/2023	0.00157	15.7	0.00015	0.00582	58.2	0.00016	0.00033	3.3	0.00008	0.00157	15.7	0.00009	17.26
Weatherboard	Iron	B44/2 O 0.0	19	14/03/2023	0.00233	23.3	0.00015	0.00733	73.3	0.00016	0.00054	5.4	0.00007	0.00163	16.3	0.00009	17.92
Weatherboard	Iron	B44/2 A 0.1	20	14/03/2023	0.00293	29.3	0.00018	0.01119	111.9	0.00022	0.0006	6	0.0001	0.00304	30.4	0.00011	
Weatherboard	Iron	B44/2 A 0.1	21	14/03/2023	0.00281	28.1	0.00017	0.01239	123.9	0.00022	0.00077	7.7	0.0001	0.0036	36	0.00012	
Weatherboard	Iron	B44/2 A 0.1	22	14/03/2023	0.00303	30.3	0.00017	0.01127	112.7	0.00021	0.00084	8.4	0.0001	0.00324	32.4	0.00012	36.21
Weatherboard	Iron	B45/1 A 0.0	23	14/03/2023	0.00194	19.4	0.00015	0.00979	97.9	0.00019	0.00067	6.7	0.0001	0.00398	39.8	0.00011	
Weatherboard	Iron	B45/1 A 0.0	24	14/03/2023	0.0017	17	0.00015	0.00815	81.5	0.00018	0.0006	6	0.00009	0.00335	33.5	0.00011	
Weatherboard	Iron	B45/1 A 0.0	25	14/03/2023	0.00224	22.4	0.00014	0.01171	117.1	0.00018	0.00059	5.9	0.00009	0.00491	49.1	0.00011	44.86
Weatherboard	Iron	B45/1 B 0.0	26	14/03/2023	0.0008	8	0.00014	0.00447	44.7	0.00014	0.00027	2.7	0.00007	0.00128	12.8	0.00009	14.07
Weatherboard	Iron	B45/1 C 0.0	27	14/03/2023	0.00192	19.2	0.00014	0.0065	65	0.00015	0.00054	5.4	0.00007	0.00198	19.8	0.00009	21.77
Weatherboard	Iron	B45/1 A 0.1	28	14/03/2023	0.00148	14.8	0.00015	0.00761	76.1	0.00017	<LOD	#VALUE!	0.00036	0.00776	77.6	0.00015	85.31
Weatherboard	Iron	B45/1 A 0.2	29	14/03/2023	0.00236	23.6	0.00016	0.00577	57.7	0.00015	0.00058	5.8	0.00007	0.00143	14.3	0.00009	15.72
Weatherboard	Iron	B45/2 A 0.0	30	14/03/2023	0.00219	21.9	0.00017	0.00972	97.2	0.0002	0.00084	8.4	0.00011	0.00419	41.9	0.00013	46.06
Weatherboard	Iron	B45/2 B 0.0	31	14/03/2023	0.00167	16.7	0.00015	0.0058	58	0.00015	0.00044	4.4	0.00008	0.00195	19.5	0.0001	21.44
Weatherboard	Iron	B45/2 C 0.0	32	14/03/2023	0.00175	17.5	0.00015	0.00549	54.9	0.00016	0.00039	3.9	0.00008	0.00155	15.5	0.00009	17.04
Weatherboard	Iron	B45/2 D 0.0	33	14/03/2023	0.00201	20.1	0.00014	0.00526	52.6	0.00014	0.00046	4.6	0.00007	0.00147	14.7	0.00008	16.16
Weatherboard	Iron	B45/2 A 0.1	34	14/03/2023	0.00194	19.4	0.00016	0.00692	69.2	0.00017	0.00054	5.4	0.00009	0.00333	33.3	0.00011	
Weatherboard	Iron	B45/2 A 0.1	35	14/03/2023	0.00174	17.4	0.00015	0.00676	67.6	0.00016	0.00056	5.6	0.00009	0.00318	31.8	0.00011	
Weatherboard	Iron	B45/2 A 0.1	36	14/03/2023	0.00258	25.8	0.00018	0.00814	81.4	0.0002	0.00089	8.9	0.00011	0.00373	37.3	0.00013	37.53
Weatherboard	Iron	B45/2 A 0.2	37	14/03/2023	0.00233	23.3	0.00018	0.00513	51.3	0.00017	0.00073	7.3	0.00009	0.00158	15.8	0.00011	17.37
Weatherboard	Iron	B46/1 A 0.0	38	14/03/2023	0.0027	27	0.00018	0.02068	206.8	0.0003	0.0006	6	0.00011	0.00431	43.1	0.00013	
Weatherboard	Iron	B46/1 A 0.0	39	14/03/2023	0.0021	21	0.00017	0.01493	149.3	0.00026	0.0005	5	0.00011	0.00417	41.7	0.00013	
Weatherboard	Iron	B46/1 A 0.0	40	14/03/2023	0.00217	21.7	0.00017	0.02047	204.7	0.00029	0.00077	7.7	0.00011	0.00434	43.4	0.00013	46.98
Weatherboard	Iron	B46/1 B 0.0	41	14/03/2023	0.00156	15.6	0.00016	0.01153	115.3	0.00022	0.00038	3.8	0.00008	0.00197	19.7	0.0001	21.66
Weatherboard	Iron	B46/1 C 0.0	42	14/03/2023	0.00068	6.8	0.00011	0.00999	99.9	0.00017	0.00031	3.1	0.00006	0.00117	11.7	0.00007	12.86
Weatherboard	Iron	B46/1 D 0.0	43	14/03/2023	0.00068	6.8	0.00011	0.0099	99	0.00017	0.00045	4.5	0.00006	0.00118	11.8	0.00007	12.97
Weatherboard	Iron	B46/1 O 0.0	44	14/03/2023	0.00173	17.3	0.00015	0.01189	118.9	0.00021	0.00053	5.3	0.00008	0.00195	19.5	0.0001	21.44
Weatherboard	Iron	B46/1 A 0.1	45	14/03/2023	0.00239	23.9	0.00017	0.01424	142.4	0.00024	0.00057	5.7	0.0001	0.00367	36.7	0.00012	40.35
Weatherboard	Iron	B46/1 A 0.2	46	14/03/2023	0.00349	34.9	0.00019	0.00798	79.8	0.00019	0.00078	7.8	0.00009	0.00212	21.2	0.00011	23.31

Weatherboard	Iron	B46/2 A 0.0	47	14/03/2023	0.00139	13.9	0.00017	0.00591	59.1	0.00018	0.00043	4.3	0.00009	0.00225	22.5	0.00011	24.74
Weatherboard	Iron	B46/2 B 0.0	48	14/03/2023	0.00188	18.8	0.00014	0.00625	62.5	0.00015	0.00035	3.5	0.00007	0.00176	17.6	0.00009	19.35
Weatherboard	Iron	B46/2 C 0.0	49	14/03/2023	0.00144	14.4	0.00014	0.00551	55.1	0.00014	0.00032	3.2	0.00007	0.00134	13.4	0.00008	14.73
Weatherboard	Iron	B46/2 D 0.0	50	14/03/2023	0.00243	24.3	0.00016	0.00647	64.7	0.00016	0.00035	3.5	0.00008	0.00181	18.1	0.0001	19.90
Weatherboard	Iron	B46/2 O 0.0	51	14/03/2023	0.00179	17.9	0.00015	0.00587	58.7	0.00015	0.00041	4.1	0.00007	0.00162	16.2	0.00009	17.81
Weatherboard	Iron	B46/2 A 0.1	52	14/03/2023	0.00172	17.2	0.00015	0.00598	59.8	0.00016	0.00065	6.5	0.00008	0.00232	23.2	0.0001	
Weatherboard	Iron	B46/2 A 0.1	53	14/03/2023	0.00143	14.3	0.00017	0.00562	56.2	0.00017	0.00047	4.7	0.00009	0.00216	21.6	0.00011	
Weatherboard	Iron	B46/2 A 0.1	54	14/03/2023	0.00163	16.3	0.00015	0.00654	65.4	0.00016	0.0006	6	0.00008	0.00223	22.3	0.0001	24.59
Weatherboard	Iron	B46/2 A 0.2	55	14/03/2023	0.00166	16.6	0.00014	0.00593	59.3	0.00015	0.00045	4.5	0.00008	0.00217	21.7	0.00009	23.86
Weatherboard	Iron	B47/1 A 0.0	56	14/03/2023	0.005	50	0.00024	0.01101	110.1	0.00026	0.00094	9.4	0.00012	0.0031	31	0.00014	
Weatherboard	Iron	B47/1 A 0.0	57	14/03/2023	0.00399	39.9	0.0003	0.0109	109	0.00032	0.00054	5.4	0.00014	0.00304	30.4	0.00017	
Weatherboard	Iron	B47/1 A 0.0	58	14/03/2023	0.00261	26.1	0.00021	0.00983	98.3	0.00024	0.00059	5.9	0.00011	0.00269	26.9	0.00013	32.36
Weatherboard	Iron	B47/1 B 0.0	59	14/03/2023	0.00287	28.7	0.00017	0.01068	106.8	0.0002	0.00056	5.6	0.00011	0.00533	53.3	0.00013	58.60
Weatherboard	Iron	B47/1 C 0.0	60	14/03/2023	0.00135	13.5	0.00016	0.00597	59.7	0.00017	0.00046	4.6	0.00009	0.00281	28.1	0.00011	30.89
Weatherboard	Iron	B47/1 D 0.0	61	14/03/2023	0.00116	11.6	0.00014	0.00417	41.7	0.00013	0.00022	2.2	0.00007	0.00168	16.8	0.00009	18.47
Weatherboard	Iron	B47/1 O 0.0	62	14/03/2023	0.00181	18.1	0.00018	0.00485	48.5	0.00017	0.00049	4.9	0.00009	0.0019	19	0.00011	20.89
Weatherboard	Iron	B47/1 A 0.1	63	14/03/2023	0.00494	49.4	0.00022	0.01125	112.5	0.00024	0.00084	8.4	0.00011	0.00281	28.1	0.00013	30.89
Weatherboard	Iron	B47/1 A 0.2	64	14/03/2023	0.00535	53.5	0.00023	0.01448	144.8	0.00027	0.00076	7.6	0.00012	0.00437	43.7	0.00014	48.04
Weatherboard	Iron	B47/2 A 0.0	65	14/03/2023	0.00218	21.8	0.00016	0.01586	158.6	0.00025	0.00057	5.7	0.00012	0.0069	69	0.00015	75.86
Weatherboard	Iron	B47/2 B 0.0	66	14/03/2023	0.00322	32.2	0.00017	0.01334	133.4	0.00023	0.00065	6.5	0.00012	0.00638	63.8	0.00014	70.14
Weatherboard	Iron	B47/2 C 0.0	67	14/03/2023	0.00228	22.8	0.00016	0.00902	90.2	0.00018	0.00058	5.8	0.0001	0.00384	38.4	0.00011	42.22
Weatherboard	Iron	B47/2 D 0.0	68	14/03/2023	0.00283	28.3	0.00016	0.01139	113.9	0.0002	0.00037	3.7	0.0001	0.00525	52.5	0.00013	57.72
Weatherboard	Iron	B47/2 O 0.0	69	14/03/2023	0.00196	19.6	0.00017	0.00777	77.7	0.00019	0.00033	3.3	0.0001	0.00365	36.5	0.00012	40.13
Weatherboard	Iron	B47/2 A 0.1	70	14/03/2023	0.00191	19.1	0.00017	0.00768	76.8	0.00019	0.00049	4.9	0.0001	0.00348	34.8	0.00012	
Weatherboard	Iron	B47/2 A 0.1	71	14/03/2023	0.00244	24.4	0.00015	0.01004	100.4	0.00018	0.00058	5.8	0.0001	0.0052	52	0.00012	
Weatherboard	Iron	B47/2 A 0.1	72	14/03/2023	0.0028	28	0.00016	0.00983	98.3	0.00018	0.0007	7	0.0001	0.00487	48.7	0.00012	49.66
Weatherboard	Iron	B47/2 A 0.2	73	14/03/2023	0.00264	26.4	0.00021	0.00619	61.9	0.0002	0.00066	6.6	0.00011	0.00247	24.7	0.00013	27.16
Concrete	Iron	B48/1 A 0.0	74	14/03/2023	0.00255	25.5	0.00017	0.00933	93.3	0.00019	0.0007	7	0.0001	0.00406	40.6	0.00012	
Concrete	Iron	B48/1 A 0.0	75	14/03/2023	0.00242	24.2	0.00017	0.0075	75	0.00018	0.00062	6.2	0.00011	0.0046	46	0.00013	
Concrete	Iron	B48/1 A 0.0	76	14/03/2023	0.00258	25.8	0.00017	0.00814	81.4	0.00019	0.00049	4.9	0.00011	0.0051	51	0.00013	50.43
Concrete	Iron	B48/1 B 0.0	77	14/03/2023	0.00165	16.5	0.00017	0.00689	68.9	0.00018	0.00046	4.6	0.00009	0.0022	22	0.00011	24.19
Concrete	Iron	B48/1 C 0.0	78	14/03/2023	0.00155	15.5	0.00017	0.00618	61.8	0.00018	0.00043	4.3	0.00009	0.00194	19.4	0.00011	21.33
Concrete	Iron	B48/1 D 0.0	79	14/03/2023	0.00087	8.7	0.00014	0.00373	37.3	0.00013	0.00036	3.6	0.00007	0.00133	13.3	0.00009	14.62
Concrete	Iron	B48/1 A 0.1	80	14/03/2023	0.00314	31.4	0.00019	0.00827	82.7	0.0002	0.00074	7.4	0.0001	0.0034	34	0.00012	37.38
Concrete	Iron	B48/1 A 0.2	81	14/03/2023	0.00369	36.9	0.0002	0.00693	69.3	0.00018	0.0007	7	0.0001	0.00252	25.2	0.00012	27.70
Concrete	Iron	B48/2 A 0.0	82	14/03/2023	0.0023	23	0.00015	0.00897	89.7	0.00017	0.00066	6.6	0.00008	0.00309	30.9	0.0001	33.97
Concrete	Iron	B48/2 B 0.0	83	14/03/2023	0.00126	12.6	0.00013	0.00577	57.7	0.00014	0.0003	3	0.00006	0.00148	14.8	0.00008	16.27
Concrete	Iron	B48/2 C 0.0	84	14/03/2023	0.00167	16.7	0.00015	0.00469	46.9	0.00015	0.00022	2.2	0.00007	0.00159	15.9	0.00009	17.48
Concrete	Iron	B48/2 D 0.0	85	14/03/2023	0.00091	9.1	0.00015	0.00462	46.2	0.00015	0.00032	3.2	0.00007	0.00134	13.4	0.00009	14.73
Concrete	Iron	B48/2 A 0.1	86	14/03/2023	0.00216	21.6	0.00015	0.00801	80.1	0.00017	0.00037	3.7	0.00008	0.00323	32.3	0.0001	
Concrete	Iron	B48/2 A 0.1	87	14/03/2023	0.00184	18.4	0.00014	0.00675	67.5	0.00016	0.00037	3.7	0.00008	0.00272	27.2	0.0001	
Concrete	Iron	B48/2 A 0.1	88	14/03/2023	0.0016	16	0.00014	0.00676	67.6	0.00016	0.0005	5	0.00008	0.00246	24.6	0.0001	30.82
Concrete	Iron	B48/2 A 0.2	89	14/03/2023	0.0013	13	0.00014	0.00321	32.1	0.00012	0.00043	4.3	0.00009	0.00269	26.9	0.0001	29.57
Concrete	Iron	B50/1 A 0.0	90	14/03/2023	0.00099	9.9	0.00013	0.01291	129.1	0.0002	0.00038	3.8	0.00008	0.00273	27.3	0.00009	
Concrete	Iron	B50/1 A 0.0	91	14/03/2023	0.0013	13	0.00013	0.01065	106.5	0.00018	0.00048	4.8	0.00008	0.00279	27.9	0.0001	
Concrete	Iron	B50/1 A 0.0	92	14/03/2023	0.001	10	0.00012	0.0114	114	0.00018	0.00039	3.9	0.00007	0.00246	24.6	0.00009	29.24
Concrete	Iron	B50/1 B 0.0	93	14/03/2023	0.00096	9.6	0.00014	0.00479	47.9	0.00014	0.00024	2.4	0.00007	0.00106	10.6	0.00008	11.65
Concrete	Iron	B50/1 C 0.0	97	14/03/2023	0.00062	6.2	0.00012	0.00684	68.4	0.00015	<LOD	#VALUE!	0.00019	0.00132	13.2	0.00008	14.51
Concrete	Iron	B50/1 D 0.0	98	14/03/2023	0.00135	13.5	0.00015	0.00528	52.8	0.00015	0.00039	3.9	0.00007	0.00147	14.7	0.00009	16.16
Concrete	Iron	B50/1 O 0.0	99	14/03/2023	0.00084	8.4	0.00015	0.00595	59.5	0.00017	0.00037	3.7	0.00008	0.00132	13.2	0.0001	14.51
Concrete	Iron	B50/1 A 0.1	100	14/03/2023	0.00354	35.4	0.00017	0.00826	82.6	0.00018	0.00057	5.7	0.00008	0.00223	22.3	0.0001	24.52
Concrete	Iron	B50/1 A 0.2	101	14/03/2023	0.00064	6.4	0.00015	0.00247	24.7	0.00013	0.00032	3.2	0.00008	0.00189	18.9	0.0001	20.78
Concrete	Iron	B50/2 A 0.0	102	14/03/2023	0.00167	16.7	0.00018	0.00855	85.5	0.00021	0.00105	10.5	0.00009	0.00179	17.9	0.00011	19.68

Concrete	Iron	B50/2 B 0.0	103	14/03/2023	0.00102	10.2	0.00013	0.00582	58.2	0.00014	0.00046	4.6	0.00007	0.00148	14.8	0.00008	16.27
Concrete	Iron	B50/2 C 0.0	104	14/03/2023	0.00089	8.9	0.00012	0.00563	56.3	0.00014	0.00031	3.1	0.00006	0.00089	8.9	0.00007	9.78
Concrete	Iron	B50/2 D 0.0	105	14/03/2023	0.00219	21.9	0.00015	0.00678	67.8	0.00016	0.00035	3.5	0.00007	0.00148	14.8	0.00009	16.27
Concrete	Iron	B50/2 O 0.0	106	14/03/2023	0.00111	11.1	0.00013	0.0047	47	0.00013	0.00037	3.7	0.00006	0.00074	7.4	0.00007	8.14
Concrete	Iron	B50/2 A 0.1	107	14/03/2023	0.0016	16	0.00017	0.00423	42.3	0.00015	0.00087	8.7	0.00009	0.0018	18	0.00011	19.79
Concrete	Iron	B50/2 A 0.2	108	14/03/2023	0.00196	19.6	0.00017	0.00332	33.2	0.00014	0.0005	5	0.00008	0.00164	16.4	0.0001	18.03
Concrete	Iron	B51/1 A 0.0	109	14/03/2023	0.00152	15.2	0.00014	0.04084	408.4	0.00037	0.00043	4.3	0.00007	0.00181	18.1	0.00009	19.90
Concrete	Iron	B51/1 B 0.0	110	14/03/2023	0.0016	16	0.00014	0.0068	68	0.00016	0.00054	5.4	0.00008	0.00181	18.1	0.00009	19.90
Concrete	Iron	B51/1 C 0.0	111	14/03/2023	0.00204	20.4	0.00016	0.00685	68.5	0.00017	0.00046	4.6	0.00008	0.0015	15	0.00009	16.49
Concrete	Iron	B51/1 D 0.0	112	14/03/2023	0.00176	17.6	0.00014	0.00667	66.7	0.00015	0.00057	5.7	0.00006	0.00093	9.3	0.00008	10.22
Concrete	Iron	B51/1 O 0.0	113	14/03/2023	0.00174	17.4	0.00015	0.0164	164	0.00024	0.00046	4.6	0.00007	0.00122	12.2	0.00009	13.41
Concrete	Iron	B51/1 A 0.1	114	14/03/2023	0.00439	43.9	0.00018	0.00774	77.4	0.00018	0.00065	6.5	0.00008	0.00163	16.3	0.00009	
Concrete	Iron	B51/1 A 0.1	115	14/03/2023	0.00337	33.7	0.00019	0.00691	69.1	0.00018	0.00051	5.1	0.00008	0.00157	15.7	0.0001	
Concrete	Iron	B51/1 A 0.1	116	14/03/2023	0.00377	37.7	0.00019	0.00664	66.4	0.00017	0.00057	5.7	0.00008	0.00143	14.3	0.0001	16.97
Concrete	Iron	B51/1 A 0.2	117	14/03/2023	0.00359	35.9	0.00018	0.00714	71.4	0.00018	0.00053	5.3	0.00008	0.00128	12.8	0.00009	14.07
Concrete	Iron	B51/2 A 0.0	118	14/03/2023	0.00233	23.3	0.00015	0.01206	120.6	0.0002	0.0005	5	0.00008	0.00219	21.9	0.00009	24.08
Concrete	Iron	B51/2 B 0.0	119	14/03/2023	0.00168	16.8	0.00015	0.00701	70.1	0.00017	0.00044	4.4	0.00008	0.00182	18.2	0.0001	20.01
Concrete	Iron	B51/2 C 0.0	120	14/03/2023	0.00207	20.7	0.00015	0.00691	69.1	0.00016	0.00047	4.7	0.00007	0.00183	18.3	0.00009	20.12
Concrete	Iron	B51/2 D 0.0	121	14/03/2023	0.00296	29.6	0.00016	0.0085	85	0.00018	0.00045	4.5	0.00008	0.00181	18.1	0.00009	19.90
Concrete	Iron	B51/2 A 0.1	122	14/03/2023	0.00264	26.4	0.00017	0.00829	82.9	0.00019	0.00059	5.9	0.00009	0.00228	22.8	0.0001	25.07
Concrete	Iron	B51/2 A 0.2	123	14/03/2023	0.00361	36.1	0.00018	0.00604	60.4	0.00016	0.00044	4.4	0.00008	0.00172	17.2	0.0001	18.91
Concrete	Iron	S5/1 A 0.0	124	14/03/2023	0.00243	24.3	0.00016	0.06922	692.2	0.00052	0.00066	6.6	0.00013	0.00942	94.2	0.00016	103.56
Concrete	Iron	S5/1 B 0.0	125	14/03/2023	0.00158	15.8	0.00014	0.01192	119.2	0.0002	0.0003	3	0.00008	0.00219	21.9	0.00009	24.08
Concrete	Iron	S5/1 C 0.0	126	14/03/2023	0.00251	25.1	0.00016	0.01103	110.3	0.00021	0.00035	3.5	0.00008	0.00212	21.2	0.0001	23.31
Concrete	Iron	S5/1 D 0.0	127	14/03/2023	0.00157	15.7	0.00013	0.00773	77.3	0.00015	0.00022	2.2	0.00006	0.00134	13.4	0.00008	14.73
Concrete	Iron	S5/1 A 0.1	128	14/03/2023	0.0024	24	0.00016	0.03363	336.3	0.00035	0.0007	7	0.0001	0.00473	47.3	0.00012	
Concrete	Iron	S5/1 A 0.1	129	14/03/2023	0.00249	24.9	0.00016	0.02966	296.6	0.00032	0.00053	5.3	0.0001	0.00416	41.6	0.00012	
Concrete	Iron	S5/1 A 0.1	130	14/03/2023	0.00257	25.7	0.00017	0.03331	333.1	0.00036	0.00046	4.6	0.00011	0.00588	58.8	0.00014	54.13
Concrete	Iron	S5/1 A 0.2	131	14/03/2023	0.00508	50.8	0.0002	0.00896	89.6	0.0002	0.00083	8.3	0.00009	0.00188	18.8	0.00011	20.67
Weatherboard	Iron	B52/1 A 0.0	4	15/03/2023	0.00365	36.5	0.00022	0.0124	124	0.00027	0.00046	4.6	0.00013	0.00496	49.6	0.00016	
Weatherboard	Iron	B52/1 A 0.0	5	15/03/2023	0.00331	33.1	0.00016	0.01627	162.7	0.00023	0.00063	6.3	0.00011	0.00595	59.5	0.00013	
Weatherboard	Iron	B52/1 A 0.0	6	15/03/2023	0.00354	35.4	0.00018	0.01473	147.3	0.00025	<LOD	#VALUE!	0.00034	0.00547	54.7	0.00014	60.03
Weatherboard	Iron	B52/1 B 0.0	7	15/03/2023	0.00331	33.1	0.00019	0.02056	205.6	0.0003	0.00041	4.1	0.00011	0.00436	43.6	0.00013	47.93
Weatherboard	Iron	B52/1 C 0.0	8	15/03/2023	0.00305	30.5	0.00018	0.01411	141.1	0.00024	0.00039	3.9	0.00011	0.0048	48	0.00013	52.77
Weatherboard	Iron	B52/1 D 0.0	9	15/03/2023	0.00313	31.3	0.00018	0.01338	133.8	0.00024	<LOD	#VALUE!	0.00032	0.00437	43.7	0.00013	48.04
Weatherboard	Iron	B52/1 O 0.0	10	15/03/2023	0.00261	26.1	0.00021	0.01336	133.6	0.00028	0.00052	5.2	0.00012	0.00391	39.1	0.00015	42.99
Weatherboard	Iron	B52/1 A 0.1	11	15/03/2023	0.00435	43.5	0.00021	0.00688	68.8	0.00019	0.00043	4.3	0.00008	0.00125	12.5	0.0001	13.74
Weatherboard	Iron	B52/2 A 0.0	12	15/03/2023	0.0023	23	0.00017	0.38821	3882.1	0.00174	0.00121	12.1	0.0003	0.05578	557.8	0.00041	613.25
Weatherboard	Iron	B52/2 B 0.0	13	15/03/2023	0.0017	17	0.00014	0.01777	177.7	0.00023	<LOD	#VALUE!	0.00028	0.00503	50.3	0.00012	55.30
Weatherboard	Iron	B52/2 C 0.0	14	15/03/2023	0.00169	16.9	0.00014	0.01411	141.1	0.00021	0.00036	3.6	0.00008	0.00257	25.7	0.0001	28.25
Weatherboard	Iron	B52/2 D 0.0	15	15/03/2023	0.00286	28.6	0.00016	0.01389	138.9	0.00021	0.00044	4.4	0.00008	0.00274	27.4	0.0001	30.12
Weatherboard	Iron	B52/2 O 0.0	16	15/03/2023	0.00205	20.5	0.00017	0.01058	105.8	0.00021	0.00039	3.9	0.00008	0.00177	17.7	0.0001	19.46
Weatherboard	Iron	B52/2 A 0.1	17	15/03/2023	0.00294	29.4	0.0002	0.07939	793.9	0.00065	<LOD	#VALUE!	0.00052	0.01319	131.9	0.00022	
Weatherboard	Iron	B52/2 A 0.1	18	15/03/2023	0.00294	29.4	0.00018	0.09111	911.1	0.00065	<LOD	#VALUE!	0.00051	0.01547	154.7	0.00021	
Weatherboard	Iron	B52/2 A 0.1	19	15/03/2023	0.0032	32	0.00022	0.06031	603.1	0.0006	0.00074	7.4	0.00021	0.01591	159.1	0.00026	163.33
Weatherboard	Iron	B52/2 A 0.2	20	15/03/2023	0.00361	36.1	0.00018	0.03116	311.6	0.00034	<LOD	#VALUE!	0.00033	0.00589	58.9	0.00014	64.75
Concrete	Iron	B53/1 A 0.0	22	15/03/2023	0.00277	27.7	0.00018	0.00655	65.5	0.00018	0.00044	4.4	0.00009	0.00173	17.3	0.0001	19.02
Concrete	Iron	B53/1 B 0.0	23	15/03/2023	0.0027	27	0.00016	0.00615	61.5	0.00016	0.00053	5.3	0.00007	0.00148	14.8	0.00009	16.27
Concrete	Iron	B53/1 C 0.0	24	15/03/2023	0.00239	23.9	0.00016	0.00623	62.3	0.00016	0.00033	3.3	0.00007	0.00173	17.3	0.00009	19.02
Concrete	Iron	B53/1 D 0.0	25	15/03/2023	0.00246	24.6	0.00015	0.00767	76.7	0.00017	0.00055	5.5	0.00007	0.00146	14.6	0.00009	16.05
Concrete	Iron	B53/1 O 0.0	26	15/03/2023	0.00247	24.7	0.00016	0.00727	72.7	0.00017	0.00052	5.2	0.00007	0.00159	15.9	0.00009	17.48
Concrete	Iron	B53/1 A 0.1	27	15/03/2023	0.00363	36.3	0.00021	0.00569	56.9	0.00019	0.00076	7.6	0.0001	0.00183	18.3	0.00012	
Concrete	Iron	B53/1 A 0.1	28	15/03/2023	0.00446	44.6	0.00021	0.00548	54.8	0.00017	0.00057	5.7	0.00009	0.00191	19.1	0.00011	

Concrete	Iron	B53/1 A 0.1	29	15/03/2023	0.00291	29.1	0.00018	0.00656	65.6	0.00018	0.00057	5.7	0.00009	0.00187	18.7	0.0001	20.56
Stone	Iron	B55/1 A 0.0	30	15/03/2023	0.00807	80.7	0.00023	0.02049	204.9	0.00028	<LOD	#VALUE!	0.00073	0.0348	348	0.00032	
Stone	Iron	B55/1 A 0.0	31	15/03/2023	0.00421	42.1	0.00017	0.01847	184.7	0.00024	0.00094	9.4	0.00014	0.01131	113.1	0.00016	
Stone	Iron	B55/1 A 0.0	32	15/03/2023	0.00542	54.2	0.00021	0.01952	195.2	0.00029	0.00058	5.8	0.00015	0.01044	104.4	0.00018	
Stone	Iron	B55/1 A 0.0	34	15/03/2023	0.00579	57.9	0.0002	0.01708	170.8	0.00026	0.00048	4.8	0.00015	0.01178	117.8	0.00018	187.81
Stone	Iron	B55/1 B 0.0	35	15/03/2023	0.00138	13.8	0.00013	0.00927	92.7	0.00017	<LOD	#VALUE!	0.00024	0.00319	31.9	0.0001	35.07
Stone	Iron	B55/1 C 0.0	36	15/03/2023	0.00089	8.9	0.00012	0.01088	108.8	0.00018	<LOD	#VALUE!	0.00023	0.0029	29	0.0001	31.88
Stone	Iron	B55/1 D 0.0	37	15/03/2023	0.0005	5	0.00011	0.0065	65	0.00014	<LOD	#VALUE!	0.00019	0.00202	20.2	0.00008	22.21
Stone	Iron	B55/1 O 0.0	39	15/03/2023	0.00066	6.6	0.00011	0.00572	57.2	0.00013	0.00024	2.4	0.00006	0.00166	16.6	0.00008	18.25
Stone	Iron	B55/1 A 0.1	40	15/03/2023	0.00384	38.4	0.00018	0.00741	74.1	0.00018	0.00077	7.7	0.0001	0.00333	33.3	0.00011	36.61
Stone	Iron	B55/1 A 0.2	41	15/03/2023	0.00406	40.6	0.00018	0.00721	72.1	0.00017	0.0007	7	0.00009	0.003	30	0.00011	32.98
Stone	Iron	B55/2 A 0.0	42	15/03/2023	0.00135	13.5	0.00012	0.03956	395.6	0.00033	<LOD	#VALUE!	0.0006	0.03561	356.1	0.00027	
Stone	Iron	B55/2 A 0.0	43	15/03/2023	0.00162	16.2	0.00013	0.03103	310.3	0.0003	<LOD	#VALUE!	0.00051	0.02308	230.8	0.00022	
Stone	Iron	B55/2 A 0.0	44	15/03/2023	0.00228	22.8	0.00014	0.03525	352.5	0.00032	0.00499	49.9	0.00028	0.05739	573.9	0.00037	425.39
Stone	Iron	B55/2 B 0.0	45	15/03/2023	0.00235	23.5	0.00015	0.02969	296.9	0.00031	0.00113	11.3	0.00021	0.02991	299.1	0.00027	328.83
Stone	Iron	B55/2 C 0.0	46	15/03/2023	0.00113	11.3	0.00011	0.01405	140.5	0.00019	<LOD	#VALUE!	0.00027	0.00643	64.3	0.00011	70.69
Stone	Iron	B55/2 D 0.0	47	15/03/2023	0.00257	25.7	0.00016	0.01232	123.2	0.00021	<LOD	#VALUE!	0.00041	0.01074	107.4	0.00017	118.08
Stone	Iron	B55/2 O 0.0	48	15/03/2023	0.00462	46.2	0.00017	0.01016	101.6	0.00018	0.00035	3.5	0.00009	0.00379	37.9	0.00011	41.67
Stone	Iron	B55/2 A 0.1	49	15/03/2023	0.00221	22.1	0.00015	0.01152	115.2	0.0002	<LOD	#VALUE!	0.00045	0.0139	139	0.00019	152.82
Stone	Iron	B55/2 A 0.2	50	15/03/2023	0.00134	13.4	0.00015	0.00409	40.9	0.00014	0.00073	7.3	0.00009	0.00204	20.4	0.0001	22.43
Stone	Iron	B56/1 A 0.0	51	15/03/2023	0.00331	33.1	0.00019	0.01254	125.4	0.00024	<LOD	#VALUE!	0.00033	0.00442	44.2	0.00013	48.59
Stone	Iron	B56/1 B 0.0	52	15/03/2023	0.00304	30.4	0.00019	0.0106	106	0.00023	<LOD	#VALUE!	0.00028	0.00248	24.8	0.00011	27.27
Stone	Iron	B56/1 C 0.0	53	15/03/2023	0.00283	28.3	0.00017	0.00951	95.1	0.00019	0.00043	4.3	0.00008	0.0018	18	0.0001	19.79
Stone	Iron	B56/1 D 0.0	54	15/03/2023	0.00349	34.9	0.00019	0.0109	109	0.00022	0.00062	6.2	0.00009	0.0021	21	0.00011	23.09
Stone	Iron	B56/1 O 0.0	55	15/03/2023	0.00312	31.2	0.00018	0.00883	88.3	0.0002	0.00056	5.6	0.00008	0.00152	15.2	0.0001	16.71
Stone	Iron	B56/1 A 0.1	56	15/03/2023	0.00443	44.3	0.00019	0.01575	157.5	0.00024	0.00045	4.5	0.00011	0.0051	51	0.00013	
Stone	Iron	B56/1 A 0.1	57	15/03/2023	0.00385	38.5	0.00017	0.0147	147	0.00023	0.00046	4.6	0.0001	0.00486	48.6	0.00012	
Stone	Iron	B56/1 A 0.1	58	15/03/2023	0.00453	45.3	0.00019	0.01374	137.4	0.00023	0.00046	4.6	0.00011	0.005	50	0.00013	54.82
Stone	Iron	B56/1 A 0.2	59	15/03/2023	0.00268	26.8	0.00017	0.02175	217.5	0.00029	0.00051	5.1	0.0001	0.00388	38.8	0.00012	42.66
Stone	Iron	B56/2 A 0.0	60	15/03/2023	0.00225	22.5	0.0002	0.26395	2639.5	0.0015	<LOD	#VALUE!	0.00039	0.00585	58.5	0.00016	
Stone	Iron	B56/2 A 0.0	61	15/03/2023	0.00371	37.1	0.00019	0.30407	3040.7	0.00147	0.00069	6.9	0.00013	0.00807	80.7	0.00016	
Stone	Iron	B56/2 A 0.0	62	15/03/2023	0.00231	23.1	0.00019	0.27744	2774.4	0.00148	<LOD	#VALUE!	0.00038	0.00641	64.1	0.00015	74.50
Stone	Iron	B56/2 B 0.0	63	15/03/2023	0.00081	8.1	0.00014	0.01296	129.6	0.00022	<LOD	#VALUE!	0.0002	0.0011	11	0.00009	12.09
Stone	Iron	B56/2 C 0.0	64	15/03/2023	0.00218	21.8	0.00016	0.0151	151	0.00024	0.00046	4.6	0.00008	0.00154	15.4	0.00009	16.93
Stone	Iron	B56/2 D 0.0	65	15/03/2023	0.00243	24.3	0.00016	0.01722	172.2	0.00025	0.00052	5.2	0.00008	0.00173	17.3	0.00009	19.02
Stone	Iron	B56/2 O 0.0	66	15/03/2023	0.00239	23.9	0.00016	0.01641	164.1	0.00024	0.00067	6.7	0.00008	0.00173	17.3	0.00009	19.02
Stone	Iron	B56/2 A 0.1	67	15/03/2023	0.0029	29	0.00018	0.02777	277.7	0.00035	0.00045	4.5	0.00011	0.00417	41.7	0.00013	45.84
Stone	Iron	B56/2 A 0.2	68	15/03/2023	0.00407	40.7	0.00019	0.03126	312.6	0.00035	0.00079	7.9	0.0001	0.0039	39	0.00012	42.88
Iron	Iron	B59/1 A 0.0	69	15/03/2023	0.00228	22.8	0.00023	0.07951	795.1	0.00077	<LOD	#VALUE!	0.00217	0.18531	1853.1	0.00121	
Iron	Iron	B59/1 A 0.0	70	15/03/2023	0.00202	20.2	0.00016	0.0951	951	0.00064	<LOD	#VALUE!	0.00167	0.20809	2080.9	0.00098	
Iron	Iron	B59/1 A 0.0	71	15/03/2023	0.00246	24.6	0.00019	0.10045	1004.5	0.00073	<LOD	#VALUE!	0.00183	0.19463	1946.3	0.00103	2154.93
Iron	Iron	B59/1 B 0.0	72	15/03/2023	0.00221	22.1	0.00015	0.02828	282.8	0.00031	0.00093	9.3	0.00017	0.01671	167.1	0.0002	183.71
Iron	Iron	B59/1 C 0.0	73	15/03/2023	0.00223	22.3	0.00017	0.01019	101.9	0.00021	0.00054	5.4	0.00012	0.00575	57.5	0.00014	63.22
Iron	Iron	B59/1 D 0.0	74	15/03/2023	0.00204	20.4	0.00016	0.00993	99.3	0.0002	0.00056	5.6	0.0001	0.00365	36.5	0.00012	40.13
Iron	Iron	B59/1 O 0.0	75	15/03/2023	0.00247	24.7	0.00016	0.01005	100.5	0.0002	0.00059	5.9	0.0001	0.00374	37.4	0.00012	41.12
Iron	Iron	B59/1 A 0.1	76	15/03/2023	0.0024	24	0.00016	0.04358	435.8	0.00041	<LOD	#VALUE!	0.00106	0.0791	791	0.0005	869.63
Iron	Iron	B59/1 A 0.2	77	15/03/2023	0.00198	19.8	0.00017	0.02644	264.4	0.00033	<LOD	#VALUE!	0.00076	0.03793	379.3	0.00034	
Iron	Iron	B59/1 A 0.2	78	15/03/2023	0.00221	22.1	0.00021	0.02454	245.4	0.00038	0.00094	9.4	0.00021	0.0146	146	0.00025	288.76
Iron	Iron	B59/2 A 0.0	79	15/03/2023	0.00099	9.9	0.00014	0.01305	130.5	0.00022	0.0012	12	0.00017	0.0161	161	0.00021	177.00
Iron	Iron	B59/2 B 0.0	80	15/03/2023	0.00116	11.6	0.00015	0.01015	101.5	0.0002	0.00059	5.9	0.0001	0.00431	43.1	0.00012	47.38
Iron	Iron	B59/2 C 0.0	81	15/03/2023	0.00116	11.6	0.00017	0.00785	78.5	0.0002	0.00057	5.7	0.0001	0.00294	29.4	0.00013	32.32
Iron	Iron	B59/2 D 0.0	82	15/03/2023	0.00176	17.6	0.00016	0.00875	87.5	0.0002	0.00053	5.3	0.0001	0.00319	31.9	0.00012	35.07
Iron	Iron	B59/2 O 0.0	83	15/03/2023	0.00172	17.2	0.00016	0.00842	84.2	0.00019	0.00054	5.4	0.00009	0.0031	31	0.00011	34.08

Iron	Iron	B59/2 A 0.1	84	15/03/2023	0.00122	12.2	0.00022	0.00852	85.2	0.00026	0.00134	13.4	0.00017	0.00691	69.1	0.0002	75.97
Weatherboard	Iron	B60/1 A 0.0	88	15/03/2023	0.00194	19.4	0.00018	0.0149	149	0.00026	0.001	10	0.0001	0.00232	23.2	0.00011	25.51
Weatherboard	Iron	B60/1 B 0.0	89	15/03/2023	0.00132	13.2	0.00019	0.00877	87.7	0.00022	0.00097	9.7	0.00009	0.00125	12.5	0.00011	13.74
Weatherboard	Iron	B60/1 C 0.0	90	15/03/2023	0.0019	19	0.00019	0.00822	82.2	0.00021	0.00086	8.6	0.00009	0.00128	12.8	0.00011	14.07
Weatherboard	Iron	B60/1 D 0.0	91	15/03/2023	0.00184	18.4	0.00019	0.00845	84.5	0.00021	0.00079	7.9	0.00009	0.00133	13.3	0.00011	14.62
Weatherboard	Iron	B60/1 A 0.1	92	15/03/2023	0.00238	23.8	0.00018	0.01111	111.1	0.00023	0.00162	16.2	0.00013	0.00533	53.3	0.00014	58.60
Concrete	Iron	B65/1 A 0.0	93	15/03/2023	0.00251	25.1	0.00017	0.0092	92	0.0002	0.00047	4.7	0.00013	0.00758	75.8	0.00016	83.33
Concrete	Iron	B65/1 B 0.0	94	15/03/2023	0.00095	9.5	0.00013	0.00427	42.7	0.00013	0.00023	2.3	0.00006	0.00136	13.6	0.00008	14.95
Concrete	Iron	B65/1 C 0.0	95	15/03/2023	0.00203	20.3	0.00014	0.00777	77.7	0.00016	0.00035	3.5	0.00007	0.00173	17.3	0.00009	19.02
Concrete	Iron	B65/1 D 0.0	96	15/03/2023	0.00207	20.7	0.00018	0.00673	67.3	0.00019	0.00057	5.7	0.0001	0.00248	24.8	0.00012	27.27
Concrete	Iron	B65/1 O 0.0	97	15/03/2023	0.00143	14.3	0.00018	0.00599	59.9	0.00019	0.00032	3.2	0.00009	0.00196	19.6	0.00012	21.55
Concrete	Iron	B65/1 A 0.1	98	15/03/2023	0.00325	32.5	0.00016	0.00926	92.6	0.00018	0.00035	3.5	0.00011	0.00581	58.1	0.00013	
Concrete	Iron	B65/1 A 0.1	99	15/03/2023	0.00189	18.9	0.00015	0.00596	59.6	0.00015	<LOD	#VALUE!	0.00029	0.00524	52.4	0.00012	
Concrete	Iron	B65/1 A 0.1	100	15/03/2023	0.00334	33.4	0.00017	0.00914	91.4	0.00018	0.00052	5.2	0.00011	0.00571	57.1	0.00013	61.42
Concrete	Iron	B65/1 A 0.2	101	15/03/2023	0.00366	36.6	0.00017	0.00935	93.5	0.00018	0.00051	5.1	0.0001	0.00425	42.5	0.00012	46.72
Concrete	Iron	B65/2 A 0.0	102	15/03/2023	0.00265	26.5	0.00013	0.00731	73.1	0.00014	<LOD	#VALUE!	0.00018	0.0019	19	0.00008	
Concrete	Iron	B65/2 A 0.0	103	15/03/2023	0.00359	35.9	0.00017	0.00918	91.8	0.00018	0.00037	3.7	0.00009	0.00336	33.6	0.00011	
Concrete	Iron	B65/2 A 0.0	104	15/03/2023	0.00291	29.1	0.00016	0.01148	114.8	0.0002	0.00046	4.6	0.00008	0.00253	25.3	0.0001	28.55
Concrete	Iron	B65/2 B 0.0	105	15/03/2023	0.00171	17.1	0.00014	0.00615	61.5	0.00015	<LOD	#VALUE!	0.00022	0.00215	21.5	0.00009	23.64
Concrete	Iron	B65/2 C 0.0	106	15/03/2023	0.0033	33	0.00018	0.00841	84.1	0.00019	0.00052	5.2	0.0001	0.00377	37.7	0.00012	41.45
Concrete	Iron	B65/2 D 0.0	107	15/03/2023	0.00275	27.5	0.00018	0.00815	81.5	0.00019	0.00036	3.6	0.0001	0.00316	31.6	0.00012	34.74
Concrete	Iron	B65/2 A 0.1	108	15/03/2023	0.00511	51.1	0.0002	0.01179	117.9	0.00022	0.00093	9.3	0.00011	0.00467	46.7	0.00013	51.34
Concrete	Iron	B65/2 A 0.2	109	15/03/2023	0.00556	55.6	0.0002	0.007	70	0.00017	0.00054	5.4	0.00008	0.00162	16.2	0.00009	17.81
Concrete	Iron	B69/1 A 0.0	113	15/03/2023	0.00335	33.5	0.00018	0.00877	87.7	0.00019	<LOD	#VALUE!	0.00035	0.00588	58.8	0.00014	64.64
Concrete	Iron	B69/1 B 0.0	114	15/03/2023	0.00138	13.8	0.00015	0.00509	50.9	0.00015	0.00026	2.6	0.00008	0.0017	17	0.0001	18.69
Concrete	Iron	B69/1 C 0.0	115	15/03/2023	0.00195	19.5	0.00014	0.00629	62.9	0.00014	0.00047	4.7	0.00007	0.00186	18.6	0.00009	20.45
Concrete	Iron	B69/1 D 0.0	116	15/03/2023	0.00216	21.6	0.00014	0.00896	89.6	0.00017	0.00034	3.4	0.00007	0.00186	18.6	0.00009	20.45
Concrete	Iron	B69/1 A 0.1	117	15/03/2023	0.00256	25.6	0.00016	0.00835	83.5	0.00018	<LOD	#VALUE!	0.00032	0.00567	56.7	0.00013	
Concrete	Iron	B69/1 A 0.1	118	15/03/2023	0.00278	27.8	0.00018	0.00894	89.4	0.0002	<LOD	#VALUE!	0.00034	0.00555	55.5	0.00014	
Concrete	Iron	B69/1 A 0.1	119	15/03/2023	0.00275	27.5	0.00016	0.00844	84.4	0.00018	0.00045	4.5	0.0001	0.00526	52.6	0.00013	60.39
Concrete	Iron	B69/1 A 0.2	121	15/03/2023	0.0017	17	0.00015	0.00638	63.8	0.00016	<LOD	#VALUE!	0.00023	0.00228	22.8	0.0001	25.07
Concrete	Iron	S4/1 A 0.0	122	15/03/2023	0.00149	14.9	0.00015	0.01277	127.7	0.00022	0.00048	4.8	0.00008	0.00199	19.9	0.0001	
Concrete	Iron	S4/1 A 0.0	123	15/03/2023	0.00189	18.9	0.00016	0.01443	144.3	0.00024	0.00065	6.5	0.00009	0.00278	27.8	0.00011	
Concrete	Iron	S4/1 A 0.0	124	15/03/2023	0.0014	14	0.00016	0.01137	113.7	0.00022	0.00047	4.7	0.00008	0.00201	20.1	0.0001	24.85
Concrete	Iron	S4/1 B 0.0	125	15/03/2023	0.00222	22.2	0.0002	0.01122	112.2	0.00026	0.00052	5.2	0.00011	0.00281	28.1	0.00013	30.89
Concrete	Iron	S4/1 D 0.0	127	15/03/2023	0.00201	20.1	0.00016	0.01116	111.6	0.00021	0.00054	5.4	0.00009	0.0024	24	0.00011	26.39
Concrete	Iron	S4/1 O 0.0	128	15/03/2023	0.00178	17.8	0.00014	0.00948	94.8	0.00018	0.0004	4	0.00008	0.00227	22.7	0.0001	24.96
Concrete	Iron	S4/1 A 0.1	129	15/03/2023	0.00179	17.9	0.00014	0.00984	98.4	0.00018	0.00049	4.9	0.00008	0.00242	24.2	0.0001	26.61
Concrete	Iron	S4/1 A 0.2	130	15/03/2023	0.00135	13.5	0.00015	0.00949	94.9	0.0002	0.00045	4.5	0.00009	0.00223	22.3	0.0001	24.52
Concrete	Iron	B71/1 A 0.0	131	15/03/2023	0.00141	14.1	0.00016	0.30413	3041.3	0.00149	0.00025	2.5	0.00008	0.00199	19.9	0.0001	21.88
Concrete	Iron	B71/1 B 0.0	132	15/03/2023	0.00229	22.9	0.00015	0.03901	390.1	0.00035	0.00048	4.8	0.00008	0.00274	27.4	0.0001	30.12
Concrete	Iron	B71/1 C 0.0	133	15/03/2023	0.00238	23.8	0.00016	0.01998	199.8	0.00026	0.00071	7.1	0.00009	0.00271	27.1	0.0001	29.79
Concrete	Iron	B71/1 D 0.0	134	15/03/2023	0.00191	19.1	0.00015	0.01966	196.6	0.00026	0.00072	7.2	0.00008	0.00248	24.8	0.0001	27.27
Concrete	Iron	B71/1 O 0.0	135	15/03/2023	0.00197	19.7	0.00016	0.0171	171	0.00026	0.0005	5	0.00009	0.00237	23.7	0.00011	26.06
Concrete	Iron	B71/1 A 0.1	136	15/03/2023	0.00209	20.9	0.00016	0.01736	173.6	0.00026	0.00047	4.7	0.00009	0.00247	24.7	0.00011	27.16
Concrete	Iron	B71/1 A 0.2	137	15/03/2023	0.00198	19.8	0.00016	0.02646	264.6	0.00032	0.00043	4.3	0.00009	0.00271	27.1	0.00011	29.79
Iron	Iron	B35/1 A 0.0	138	15/03/2023	0.00234	23.4	0.00017	0.12393	1239.3	0.00078	0.00146	14.6	0.00024	0.03164	316.4	0.0003	
Iron	Iron	B35/1 A 0.0	139	15/03/2023	0.00264	26.4	0.00018	0.12695	1269.5	0.00081	0.00143	14.3	0.00025	0.03446	344.6	0.00032	
Iron	Iron	B35/1 A 0.0	140	15/03/2023	0.0019	19	0.00021	0.11135	1113.5	0.00092	<LOD	#VALUE!	0.00091	0.03304	330.4	0.00039	363.32
Iron	Iron	B35/1 B 0.0	141	15/03/2023	0.00245	24.5	0.00017	0.04566	456.6	0.00044	0.00068	6.8	0.00017	0.01538	153.8	0.00021	169.09
Iron	Iron	B35/1 C 0.0	142	15/03/2023	0.00212	21.2	0.00019	0.01742	174.2	0.0003	0.00062	6.2	0.00014	0.00611	61.1	0.00016	67.17
Iron	Iron	B35/1 D 0.0	143	15/03/2023	0.0026	26	0.00021	0.01117	111.7	0.00026	0.00065	6.5	0.00013	0.00474	47.4	0.00016	52.11
Iron	Iron	B35/1 O 0.0	144	15/03/2023	0.00288	28.8	0.00018	0.01615	161.5	0.00026	0.0006	6	0.00013	0.00696	69.6	0.00015	76.52

Iron	Iron	B35/1 A 0.1	145	15/03/2023	0.00355	35.5	0.00022	0.09228	922.8	0.00074	0.0028	28	0.00027	0.02833	283.3	0.00033	311.46
Iron	Iron	B35/2 A 0.0	146	15/03/2023	0.00368	36.8	0.00025	0.03567	356.7	0.00049	<LOD	#VALUE!	0.00108	0.04491	449.1	0.00048	493.74
Iron	Iron	B35/2 B 0.0	147	15/03/2023	0.00694	69.4	0.00037	0.00917	91.7	0.00031	0.00052	5.2	0.00013	0.00123	12.3	0.00016	13.52
Iron	Iron	B35/2 C 0.0	148	15/03/2023	0.00343	34.3	0.0002	0.03057	305.7	0.00038	0.00145	14.5	0.00017	0.01197	119.7	0.00021	131.60
Iron	Iron	B35/2 D 0.0	149	15/03/2023	0.00283	28.3	0.00015	0.02064	206.4	0.00025	0.00035	3.5	0.00011	0.00835	83.5	0.00014	91.80
Iron	Iron	B35/2 O 0.0	150	15/03/2023	0.00271	27.1	0.00016	0.02075	207.5	0.00026	0.00052	5.2	0.00012	0.00763	76.3	0.00014	83.88
Concrete	Iron	S8/1 A 0.0	151	15/03/2023	0.0045	45	0.00018	0.01175	117.5	0.00021	0.00083	8.3	0.0001	0.00472	47.2	0.00012	51.89
Concrete	Iron	S8/1 B 0.0	152	15/03/2023	0.00265	26.5	0.00018	0.00818	81.8	0.0002	0.00029	2.9	0.00009	0.00279	27.9	0.00012	30.67
Concrete	Iron	S8/1 C 0.0	153	15/03/2023	0.00216	21.6	0.00018	0.00821	82.1	0.0002	0.00035	3.5	0.00009	0.00192	19.2	0.00011	21.11
Concrete	Iron	S8/1 D 0.0	154	15/03/2023	0.00237	23.7	0.00017	0.00916	91.6	0.0002	0.00029	2.9	0.00009	0.00245	24.5	0.00011	26.94
Concrete	Iron	S8/1 O 0.0	155	15/03/2023	0.0026	26	0.00017	0.00912	91.2	0.0002	0.00039	3.9	0.00009	0.00226	22.6	0.00011	24.85
Concrete	Iron	S8/1 A 0.1	156	15/03/2023	0.00335	33.5	0.0002	0.00824	82.4	0.0002	0.0005	5	0.0001	0.00287	28.7	0.00012	
Concrete	Iron	S8/1 A 0.1	157	15/03/2023	0.00458	45.8	0.0002	0.01037	103.7	0.00021	0.00068	6.8	0.0001	0.00346	34.6	0.00012	
Concrete	Iron	S8/1 A 0.1	158	15/03/2023	0.00447	44.7	0.00018	0.00972	97.2	0.00019	0.00095	9.5	0.00009	0.00241	24.1	0.0001	32.03
Concrete	Iron	S8/1 A 0.2	159	15/03/2023	0.00283	28.3	0.00017	0.00584	58.4	0.00016	0.00031	3.1	0.00008	0.00196	19.9	0.0001	21.88
N/A		Ward H/1 A 0.0	160	15/03/2023	0.00374	37.4	0.00018	0.01113	111.3	0.00021	0.00051	5.1	0.0001	0.00399	39.9	0.00012	
N/A		Ward H/1 A 0.0	161	15/03/2023	0.00298	29.8	0.00021	0.01045	104.5	0.00024	0.00043	4.3	0.00011	0.00343	34.3	0.00014	40.79
N/A		Ward H/1 B 0.0	163	15/03/2023	0.00306	30.6	0.00019	0.01023	102.3	0.00022	0.00043	4.3	0.00011	0.00346	34.6	0.00013	38.04
N/A		Ward H/1 C 0.0	164	15/03/2023	0.00235	23.5	0.00017	0.00875	87.5	0.0002	0.0004	4	0.0001	0.00332	33.2	0.00012	36.50
N/A		Ward H/1 D 0.0	165	15/03/2023	0.00228	22.8	0.00016	0.00665	66.5	0.00017	0.00042	4.2	0.00008	0.00213	21.3	0.0001	23.42
N/A		Ward H/1 O 0.0	166	15/03/2023	0.0023	23	0.00015	0.00701	70.1	0.00016	0.00046	4.6	0.00008	0.00226	22.6	0.0001	24.85
N/A		Ward H/1 A 0.1	167	15/03/2023	0.00592	59.2	0.00022	0.00853	85.3	0.0002	<LOD	#VALUE!	0.00029	0.00319	31.9	0.00012	35.07
N/A		Ward H/1 A 0.2	168	15/03/2023	0.00378	37.8	0.00018	0.00852	85.2	0.00018	<LOD	#VALUE!	0.00029	0.00399	39.9	0.00012	43.87
N/A		Ward H/2 A 0.0	169	15/03/2023	0.00206	20.6	0.0002	0.00831	83.1	0.00023	0.0004	4	0.00012	0.00339	33.9	0.00014	37.27
N/A		Ward H/2 B 0.0	170	15/03/2023	0.00284	28.4	0.00021	0.01089	108.9	0.00025	0.00061	6.1	0.00012	0.00382	38.2	0.00014	42.00
N/A		Ward H/2 C 0.0	171	15/03/2023	0.00238	23.8	0.00016	0.00799	79.9	0.00018	0.00037	3.7	0.00008	0.0026	26	0.0001	28.58
N/A		Ward H/2 D 0.0	172	15/03/2023	0.00385	38.5	0.00021	0.01008	100.8	0.00023	0.0005	5	0.00011	0.00333	33.3	0.00013	36.61
N/A		Ward H/2 O 0.0	173	15/03/2023	0.00318	31.8	0.00019	0.00987	98.7	0.00021	0.0004	4	0.0001	0.00359	35.9	0.00013	39.47
N/A		Ward H/2 A 0.1	174	15/03/2023	0.00328	32.8	0.00023	0.00737	73.7	0.00022	0.00041	4.1	0.00012	0.00351	35.1	0.00015	38.59
N/A		Ward H/2 A 0.2	175	15/03/2023	0.00198	19.8	0.00018	0.0054	54	0.00017	0.00052	5.2	0.00009	0.0021	21	0.00011	23.09
N/A		Ward F/1 A 0.0	176	15/03/2023	0.00135	13.5	0.00014	0.00732	73.2	0.00017	0.00026	2.6	0.00008	0.00258	25.8	0.0001	
N/A		Ward F/1 A 0.0	177	15/03/2023	0.00253	25.3	0.00018	0.01225	122.5	0.00023	0.00074	7.4	0.00011	0.00418	41.8	0.00013	
N/A		Ward F/1 A 0.0	178	15/03/2023	0.00226	22.6	0.00017	0.01089	108.9	0.00021	0.00055	5.5	0.00011	0.00485	48.5	0.00013	
N/A		Ward F/1 A 0.0	179	15/03/2023	0.0021	21	0.00018	0.01037	103.7	0.00022	0.00053	5.3	0.00011	0.00421	42.1	0.00013	43.48
N/A		Ward F/1 B 0.0	180	15/03/2023	0.00276	27.6	0.00017	0.01244	124.4	0.00022	0.00084	8.4	0.0001	0.0035	35	0.00012	38.48
N/A		Ward F/1 C 0.0	181	15/03/2023	0.00086	8.6	0.00014	0.00705	70.5	0.00017	0.00023	2.3	0.00007	0.0012	12	0.00008	13.19
N/A		Ward F/1 D 0.0	182	15/03/2023	0.00154	15.4	0.00016	0.00668	66.8	0.00018	0.00063	6.3	0.00009	0.00254	25.4	0.00011	27.92
N/A		Ward F/1 O 0.0	183	15/03/2023	0.00261	26.1	0.00019	0.01115	111.5	0.00023	0.00105	10.5	0.00012	0.00499	49.9	0.00014	54.86
N/A		Ward F/1 A 0.1	184	15/03/2023	0.00212	21.2	0.00025	0.0089	89	0.00027	0.00049	4.9	0.00013	0.003	30	0.00016	32.98
N/A		Ward F/2 A 0.0	185	15/03/2023	0.00353	35.3	0.00018	0.00985	98.5	0.0002	0.00056	5.6	0.0001	0.00432	43.2	0.00012	47.49
N/A		Ward F/2 B 0.0	186	15/03/2023	0.00184	18.4	0.00019	0.00736	73.6	0.0002	0.00045	4.5	0.00011	0.00368	36.8	0.00014	40.46
N/A		Ward F/2 C 0.0	187	15/03/2023	0.00216	21.6	0.00016	0.01132	113.2	0.00021	0.00066	6.6	0.0001	0.00366	36.6	0.00012	40.24
N/A		Ward F/2 D 0.0	188	15/03/2023	0.0023	23	0.00016	0.00935	93.5	0.00019	0.0008	8	0.0001	0.00427	42.7	0.00012	46.94
N/A		Ward F/2 O 0.0	189	15/03/2023	0.00228	22.8	0.00016	0.0075	75	0.00017	0.00053	5.3	0.0001	0.00363	36.3	0.00012	39.91
N/A		Ward F/2 A 0.1	190	15/03/2023	0.00391	39.1	0.00018	0.00966	96.6	0.0002	0.00092	9.2	0.00011	0.00445	44.5	0.00013	
N/A		Ward F/2 A 0.1	191	15/03/2023	0.00423	42.3	0.00019	0.00968	96.8	0.0002	0.00065	6.5	0.00011	0.00468	46.8	0.00013	
N/A		Ward F/2 A 0.1	192	15/03/2023	0.00473	47.3	0.0002	0.00953	95.3	0.00021	0.00073	7.3	0.00011	0.00435	43.5	0.00013	47.03
Stone		B75/1 A 0.0	196	15/03/2023	0.00194	19.4	0.00016	0.01871	1877.1	0.00103	0.0018	18	0.00021	0.02373	237.3	0.00026	
Stone		B75/1 A 0.0	197	15/03/2023	0.00221	22.1	0.00017	0.00878	878.9	0.00065	<LOD	#VALUE!	0.00072	0.03104	310.4	0.00031	
Stone		B75/1 A 0.0	198	15/03/2023	0.00156	15.6	0.00016	0.05652	565.2	0.00048	<LOD	#VALUE!	0.00052	0.01633	163.3	0.00022	
Stone		B75/1 A 0.0	199	15/03/2023	0.00217	21.7	0.00017	0.15525	1552.5	0.00092	0.00082	8.2	0.00019	0.01887	188.7	0.00023	247.28
Stone		B75/1 B 0.0	200	15/03/2023	0.00122	12.2	0.00014	0.01497	149.7	0.00023	<LOD	#VALUE!	0.00029	0.00478	47.8	0.00012	52.55
Stone		B75/1 C 0.0	201	15/03/2023	0.00209	20.9	0.00016	0.01433	143.3	0.00023	<LOD	#VALUE!	0.00038	0.00806	80.6	0.00015	88.61

Stone		B75/1 D 0.0	202	15/03/2023	0.00145	14.5	0.00015	0.00877	87.7	0.00018	<LOD	#VALUE!	0.00026	0.00288	28.8	0.00011	31.66
Stone		B75/1 O 0.0	203	15/03/2023	0.00157	15.7	0.00015	0.00843	84.3	0.00018	0.00035	3.5	0.00009	0.00271	27.1	0.0001	29.79
Stone		B75/1 A 0.1	204	15/03/2023	0.00313	31.3	0.00017	0.06128	612.8	0.00048	0.00108	10.8	0.00019	0.02084	208.4	0.00023	229.11
Stone		B75/1 A 0.2	205	15/03/2023	0.00244	24.4	0.00017	0.01173	117.3	0.00023	0.00053	5.3	0.00009	0.00257	25.7	0.00011	28.25
N/A		Nurses Home/1 A 0.0	206	15/03/2023	0.00269	26.9	0.00021	0.01687	168.7	0.00031	0.0008	8	0.00012	0.00303	30.3	0.00014	33.31
N/A		Nurses Home/1 B 0.0	207	15/03/2023	0.00232	23.2	0.00016	0.01508	150.8	0.00023	0.00054	5.4	0.00009	0.00306	30.6	0.00011	33.64
N/A		Nurses Home/1 C 0.0	208	15/03/2023	0.00291	29.1	0.00016	0.01934	193.4	0.00025	0.00051	5.1	0.00009	0.00372	37.2	0.00011	40.90
N/A		Nurses Home/1 D 0.0	209	15/03/2023	0.00238	23.8	0.00016	0.01789	178.9	0.00026	0.00052	5.2	0.00012	0.00739	73.9	0.00015	81.25
N/A		Nurses Home/1 O 0.0	210	15/03/2023	0.00286	28.6	0.00016	0.01747	174.7	0.00025	0.00073	7.3	0.00009	0.00358	35.8	0.00011	39.36
N/A		Nurses Home/1 A 0.1	211	15/03/2023	0.00295	29.5	0.00018	0.01815	181.5	0.00027	0.00069	6.9	0.0001	0.00378	37.8	0.00012	41.56
N/A		Nurses Home/2 A 0.0	212	15/03/2023	0.00258	25.8	0.00018	0.0151	151	0.00026	0.00076	7.6	0.0001	0.00276	27.6	0.00012	
N/A		Nurses Home/2 A 0.0	213	15/03/2023	0.00259	25.9	0.00019	0.0161	161	0.00028	0.00044	4.4	0.0001	0.00297	29.7	0.00012	
N/A		Nurses Home/2 A 0.0	214	15/03/2023	0.00292	29.2	0.00018	0.02109	210.9	0.0003	0.00065	6.5	0.0001	0.0033	33	0.00012	33.09
N/A		Nurses Home/2 B 0.0	215	15/03/2023	0.00281	28.1	0.00017	0.02054	205.4	0.00028	0.0006	6	0.00009	0.00296	29.6	0.00011	32.54
N/A		Nurses Home/2 C 0.0	216	15/03/2023	0.00252	25.2	0.00016	0.01648	164.8	0.00025	0.00065	6.5	0.00009	0.0029	29	0.00011	31.88
N/A		Nurses Home/2 D 0.0	217	15/03/2023	0.00159	15.9	0.00017	0.01161	116.1	0.00023	0.00035	3.5	0.0001	0.00286	28.6	0.00012	31.44
N/A		Nurses Home/2 O 0.0	218	15/03/2023	0.00167	16.7	0.00017	0.01165	116.5	0.00023	0.00033	3.3	0.0001	0.00288	28.8	0.00012	31.66
N/A		Nurses Home/2 A 0.1	219	15/03/2023	0.00282	28.2	0.00018	0.01424	142.4	0.00024	0.00066	6.6	0.0001	0.00313	31.3	0.00012	34.41
N/A		Pavilion/1 A 0.0	220	15/03/2023	0.00198	19.8	0.00017	0.01406	140.6	0.00024	0.00062	6.2	0.00015	0.01008	100.8	0.00018	110.82
N/A		Pavilion/1 B 0.0	221	15/03/2023	0.00175	17.5	0.00016	0.01581	158.1	0.00026	<LOD	#VALUE!	0.0004	0.00804	80.4	0.00016	88.39
N/A		Pavilion/1 C 0.0	222	15/03/2023	0.00236	23.6	0.00019	0.01696	169.6	0.00029	<LOD	#VALUE!	0.00051	0.01185	118.5	0.00021	130.28
N/A		Pavilion/1 D 0.0	223	15/03/2023	0.00239	23.9	0.00018	0.01229	122.9	0.00024	<LOD	#VALUE!	0.00052	0.01359	135.9	0.00022	149.41
N/A		Pavilion/1 O 0.0	224	15/03/2023	0.0019	19	0.00016	0.01615	161.5	0.00025	<LOD	#VALUE!	0.00045	0.01149	114.9	0.00019	126.32
N/A		Pavilion/1 A 0.1	225	15/03/2023	0.00099	9.9	0.00014	0.0048	48	0.00014	0.00064	6.4	0.00008	0.00145	14.5	0.00009	
N/A		Pavilion/1 A 0.1	226	15/03/2023	0.00108	10.8	0.00014	0.00496	49.6	0.00015	0.00063	6.3	0.00008	0.00136	13.6	0.00009	
N/A		Pavilion/1 A 0.1	227	15/03/2023	0.00109	10.9	0.00015	0.0044	44	0.00015	0.00053	5.3	0.00008	0.0015	15	0.0001	15.79
Weatherboard	Iron	B2/3 A 0.0	14	13/02/2024		0	4		5497	25	23	3			302	3	316.92
Weatherboard	Iron	B2/3 B 0.0	15	13/02/2024		0	4		370	5	0	2			23	1	24.14
Weatherboard	Iron	B2/3 C 0.0	16	13/02/2024		0	4		88	3	0	2			18	1	18.89
Weatherboard	Iron	B2/3 D 0.0	17	13/02/2024		14	3		106	4	5	2			32	2	33.58
Weatherboard	Iron	B2/3 A 0.1	18	13/02/2024		11	3		1329	14	0	3			39	2	40.93
Weatherboard	Iron	B2/3 A 0.2	19	13/02/2024		13	3		1278	11	10	2			47	2	49.32
Weatherboard	Iron	B2/3 A 0.3	20	13/02/2024		46	4		631	9	13	3			178	4	186.79
Weatherboard	Iron	B2/3 A 0.4	21	13/02/2024		33	4		337	6	0	7			389	5	408.22
Weatherboard	Iron	B2/3 A 0.5	22	13/02/2024		19	3		126	4	9	2			72	3	75.56
Weatherboard	Iron	B2/3 A 0.6	23	13/02/2024		22	4		144	5	10	3			99	3	
Weatherboard	Iron	B2/3 A 0.6	24	13/02/2024		25	4		182	6	0	6			128	4	119.11
Weatherboard	Iron	B2/4 A 0.0	25	13/02/2024		20	3		283	5	0	5			165	3	173.15
Weatherboard	Iron	B2/4 B 0.0	26	13/02/2024		33	4		225	5	0	4			119	3	124.88
Weatherboard	Iron	B2/4 C 0.0	27	13/02/2024		13	2		181	4	0	3			55	2	57.72
Weatherboard	Iron	B2/4 D 0.0	28	13/02/2024		8	2		115	3	0	3			50	2	52.47
Weatherboard	Iron	B2/4 A 0.1	29	13/02/2024		19	3		172	4	0	4			103	3	108.09
Weatherboard	Iron	B2/4 A 0.2	30	13/02/2024		36	5		268	7	0	7			170	4	178.40
Weatherboard	Iron	B2/4 A 0.3	31	13/02/2024		38	4		211	5	0	5			131	3	137.47
Weatherboard	Iron	B2/4 A 0.4	32	13/02/2024		53	5		224	7	0	6			140	4	146.92
Weatherboard	Iron	B2/4 A 0.5	1	13/02/2024		88	4		270	5	0	5			224	4	
Weatherboard	Iron	B2/4 A 0.5	2	13/02/2024		37	4		345	6	0	6			271	4	259.73
Concrete	Iron	B3/1 A 0.0	3	13/02/2024		24	3		208	4	6	1			20	1	20.99
Concrete	Iron	B3/1 B 0.0	4	13/02/2024		21	4		120	4	9	2			46	2	48.27
Concrete	Iron	B3/1 A 0.1	5	13/02/2024		21	3		103	3	0	2			26	2	27.28
Concrete	Iron	B3/1 A 0.2	6	13/02/2024		34	3		116	3	8	1			23	2	24.14
Concrete	Iron	B3/2 A 0.0	7	13/02/2024		14	4		243	6	0	7			213	5	223.52
Concrete	Iron	B3/2 B 0.0	8	13/02/2024		0	5		128	4	0	3			39	2	40.93

Concrete	Iron	B3/2 C 0.0	9	13/02/2024	10	3	112	3	0	3	28	2	29.38
Concrete	Iron	B3/2 A 0.1	10	13/02/2024	17	3	220	5	0	5	145	3	152.16
Concrete	Iron	B3/2 A 0.2	11	13/02/2024	16	4	142	5	0	4	50	3	52.47
Brick	Tile	B10/2 A 0.0	12	13/02/2024	72	4	104	3	0	3	60	2	62.96
Brick	Tile	B10/2 B 0.0	13	13/02/2024	31	4	127	4	0	4	73	3	76.61
Brick	Tile	B10/2 C 0.0	14	13/02/2024	23	3	129	4	0	4	102	3	107.04
Brick	Tile	B10/2 D 0.0	15	13/02/2024	33	3	141	4	6	2	51	2	53.52
Brick	Tile	B10/3 A 0.1	16	13/02/2024	31	4	69	4	0	3	37	2	38.83
Brick	Tile	B10/2 A 0.2	17	13/02/2024	32	4	64	4	6	2	30	2	31.48
Brick	Tile	B10/3 A 0.0	18	13/02/2024	32	5	62	4	8	2	30	2	31.48
Brick	Tile	B10/3 B 0.0	19	13/02/2024	345	7	246	5	8	3	120	3	125.93
Brick	Tile	B10/3 C 0.0	20	13/02/2024	128	5	175	4	0	4	71	2	74.51
Brick	Tile	B10/3 A 0.1	21	13/02/2024	37	4	172	5	10	2	68	3	
Brick	Tile	B10/3 A 0.1	22	13/02/2024	142	5	198	5	0	4	77	3	76.08
Brick	Tile	B10/3 A 0.2	23	13/02/2024	59	5	135	5	7	2	45	2	47.22
Weatherboard	Iron	B11/3 A 0.0	5	15/02/2024	17	3	436	7	0	11	935	8	981.19
Weatherboard	Iron	B11/3 B 0.0	6	15/02/2024	19	3	250	5	0	6	289	4	303.28
Weatherboard	Iron	B11/3 C 0.0	7	15/02/2024	16	3	200	4	0	4	135	3	141.67
Weatherboard	Iron	B11/3 D 0.0	8	15/02/2024	14	3	177	4	7	2	77	2	80.80
Weatherboard	Iron	B11/3 A 0.3	9	15/02/2024	11	3	208	5	8	2	68	2	71.36
Weatherboard	Iron	B11/3 A 0.1	10	15/02/2024	19	4	353	7	0	10	641	7	
Weatherboard	Iron	B11/3 A 0.1	11	15/02/2024	29	4	427	8	0	10	673	8	
Weatherboard	Iron	B11/3 A 0.1	12	15/02/2024	21	4	347	7	0	10	590	7	666.02
Weatherboard	Iron	B11/3 A 0.2	13	15/02/2024	35	4	161	5	0	6	173	4	181.55
Weatherboard	Iron	B11/3 A 0.4	14	15/02/2024	21	3	92	3	7	2	63	2	
Weatherboard	Iron	B11/3 A 0.4	15	15/02/2024	13	3	98	4	7	2	60	2	64.54
Weatherboard	Iron	B11/4 A 0.0	16	15/02/2024	13	2	123	3	38	4	420	4	440.75
Weatherboard	Iron	B11/4 A 0.4	17	15/02/2024	23	6	111	6	19	4	103	5	108.09
Weatherboard	Iron	B11/4 B 0.0	18	15/02/2024	0	4	93	3	15	3	287	4	301.18
Weatherboard	Iron	B11/4 C 0.0	19	15/02/2024	27	4	140	5	37	5	219	5	229.82
Weatherboard	Iron	B11/4 D 0.0	20	15/02/2024	18	3	62	3	0	3	30	2	31.48
Weatherboard	Iron	B11/4 O 0.0	21	15/02/2024	41	3	78	2	0	2	34	1	35.68
Brick	Tile	B12/1 A 0.0	22	15/02/2024	51	5	191	6	0	5	99	3	103.89
Brick	Tile	B12/1 B 0.0	23	15/02/2024	0	7	76	4	0	3	18	2	
Brick	Tile	B12/1 B 0.0	24	15/02/2024	36	3	116	4	0	3	46	2	33.58
Brick	Tile	B12/1 C 0.0	25	15/02/2024	34	3	131	4	0	3	54	2	56.67
Brick	Tile	B12/1 D 0.0	26	15/02/2024	36	3	122	3	0	3	55	2	57.72
Brick	Tile	B12/1 O 0.0	27	15/02/2024	25	3	126	4	0	4	61	2	64.01
Brick	Tile	B12/1 A 0.1	1	15/02/2024	44	5	160	5	0	4	68	3	71.36
Brick	Tile	B12/1 A 0.2	2	15/02/2024	21	5	76	4	12	2	16	2	16.79
Brick	Tile	B12/2 A 0.0	3	15/02/2024	40	5	130	5	0	5	166	4	174.20
Brick	Tile	B12/2 A 0.1	4	15/02/2024	30	4	106	4	0	3	44	2	46.17
Brick	Tile	B12/2 A 0.2	5	15/02/2024	28	3	104	4	0	8	507	6	532.05
Brick	Tile	B12/2 A 0.3	6	15/02/2024	0	4	46	3	0	2	16	1	
Brick	Tile	B12/3 A 0.3	7	15/02/2024	123	5	457	8	37	3	148	4	86.05
Brick	Tile	B12/3 A 0.4	8	15/02/2024	45	3	346	6	8	1	27	2	28.33
Brick	Tile	B12/4 A 0.0	3	15/02/2024	132	5	548	8	0	4	92	3	96.54
Brick	Tile	B12/4 A 0.1	4	15/02/2024	170	7	763	12	0	8	250	5	
Brick	Tile	B12/4 A 0.1	5	15/02/2024	284	7	833	9	0	7	348	5	
Brick	Tile	B12/4 A 0.1	6	15/02/2024	187	6	720	9	0	6	244	4	294.53
Brick	Tile	B12/4 A 0.2	7	15/02/2024	114	11	594	17	0	12	204	8	214.08
Brick	Tile	B12/4 A 0.3	8	15/02/2024	29	4	86	3	7	1	11	1	11.54
Brick	Tile	B12/4 A 0.4	9	15/02/2024	29	3	91	3	6	1	13	1	13.64

Brick	Tile	B12/4 B 0.0	10	15/02/2024	147	7	556	10	0	10	447	7	469.08
Brick	Tile	B12/4 C 0.0	11	15/02/2024	38	4	232	6	0	8	324	5	340.01
Brick	Tile	B12/4 D 0.0	12	15/02/2024	51	4	171	5	0	8	384	6	402.97
Brick	Tile	B12/4 O 0.1	13	15/02/2024	69	5	190	5	38	3	138	4	144.82
Brick	Tile	B12/4 B 0.1	14	15/02/2024	46	4	159	4	0	5	208	4	218.28
Brick	Tile	B12/4 B 0.0	15	15/02/2024	23	3	104	3	16	5	429	5	450.19
Brick	Tile	B12/4 B 0.2	16	15/02/2024	28	3	149	4	0	8	560	6	
Brick	Tile	B12/4 B 0.2	17	15/02/2024	30	4	147	4	0	8	427	6	517.88
Weatherboard	Iron	B15/3 A 0.0	18	15/02/2024	0	3	1576	10	0	3	154	2	161.61
Weatherboard	Iron	B15/3 B 0.0	19	15/02/2024	19	3	297	5	0	3	47	2	49.32
Weatherboard	Iron	B15/3 C 0.0	20	15/02/2024	0	3	57	2	0	1	6	1	6.30
Weatherboard	Iron	B15/3 D 0.0	21	15/02/2024	20	3	256	5	0	2	27	1	28.33
Weatherboard	Iron	B15/3 O 0.0	22	15/02/2024	27	4	202	6	6	2	30	2	31.48
Weatherboard	Iron	B15/3 A 0.1	23	15/02/2024	14	3	3415	22	18	3	132	3	138.52
Weatherboard	Iron	B15/4 B 0.0	1	15/02/2024	12	3	4308	24	0	6	295	4	309.57
Weatherboard	Iron	B15/4 C 0.0	2	15/02/2024	27	3	426	7	0	5	186	3	195.19
Weatherboard	Iron	B15/4 D 0.0	3	15/02/2024	23	4	211	5	0	4	98	3	102.84
Weatherboard	Iron	B15/4 O 0.0	4	15/02/2024	33	5	154	6	13	3	82	4	86.05
Weatherboard	Iron	B15/4 A 0.1	5	15/02/2024	28	3	1348	12	0	6	340	5	356.80
Weatherboard	Iron	B15/4 A 0.2	6	15/02/2024	18	3	1675	12	0	6	342	4	358.89
Weatherboard	Iron	B15/4 A 0.3	7	15/02/2024	21	4	700	10	11	3	95	3	99.69
Weatherboard	Iron	B15/5 A 0.0	8	15/02/2024	0	6	837	12	0	8	315	6	330.56
Weatherboard	Iron	B15/5 B 0.0	9	15/02/2024	13	3	422	7	0	5	159	3	166.85
Weatherboard	Iron	B15/5 C 0.0	10	15/02/2024	16	3	179	5	0	4	98	3	102.84
Weatherboard	Iron	B15/5 D 0.0	11	15/02/2024	0	5	225	6	0	5	91	3	95.50
Weatherboard	Iron	B15/5 O 0.0	12	15/02/2024	0	5	275	6	0	3	37	2	38.83
Weatherboard	Iron	B15/5 A 0.1	13	15/02/2024	27	4	527	9	14	3	150	4	157.41
Weatherboard	Iron	B15/5 A 0.2	14	15/02/2024	12	4	696	11	0	5	137	4	143.77
Weatherboard	Iron	B15/5 A 0.3	15	15/02/2024	15	3	237	6	0	3	52	2	54.57
Concrete	Iron	B19/2 A 0.0	3	15/02/2024	23	3	1387	11	9	2	145	3	
Concrete	Iron	B19/2 A 0.0	4	15/02/2024	23	2	653	7	0	4	169	3	
Concrete	Iron	B19/2 A 0.0	5	15/02/2024	17	2	463	5	0	4	178	3	172.10
Concrete	Iron	B19/2 A 0.1	6	15/02/2024	46	3	185	4	8	2	63	2	66.11
Concrete	Iron	B19/2 A 0.2	7	15/02/2024	19	4	88	4	14	3	81	3	85.00
Concrete	Iron	B19/2 A 0.3	8	15/02/2024	0	5	295	6	0	2	17	2	17.84
Concrete	Iron	B19/2 A 0.4	9	15/02/2024	14	4	280	7	6	2	14	2	14.69
Concrete	Iron	B19/2 B 0.0	10	15/02/2024	0	6	252	7	0	3	16	2	16.79
Concrete	Iron	B19/2 B 0.1	11	15/02/2024	36	3	124	3	0	2	20	1	20.99
Concrete	Iron	B19/2 B 0.2	12	15/02/2024	44	3	131	3	0	3	58	2	60.87
Concrete	Iron	B19/2 B 0.3	13	15/02/2024	0	4	57	3	0	2	16	1	16.79
Concrete	Iron	B19/2 B 0.4	14	15/02/2024	0	6	122	5	0	3	17	2	17.84
Concrete	Iron	B19/2 B 0.5	15	15/02/2024	0	5	158	5	6	2	19	2	19.94
Concrete	Iron	B19/2 C 0.0	16	15/02/2024	0	5	217	5	7	1	19	2	19.94
Concrete	Iron	B19/2 D 0.0	17	15/02/2024	13	3	197	5	0	2	19	2	19.94
Concrete	Iron	B19/2 O 0.0	18	15/02/2024	0	5	194	5	7	1	17	2	17.84
Concrete	Iron	B19/3 A 0.0	25	15/02/2024	8	3	260	5	0	3	36	2	37.78
Concrete	Iron	B19/3 A 0.1	26	15/02/2024	22	3	216	5	0	4	133	3	139.57
Concrete	Iron	B19/3 A 0.2	27	15/02/2024	0	4	51	3	4	1	14	2	14.69
Concrete	Iron	B19/3 A 0.3	28	15/02/2024	0	5	45	3	10	2	11	2	11.54
Concrete	Iron	B19/3 A 0.4	29	15/02/2024	0	6	45	3	9	2	15	2	15.74
Concrete	Iron	B19/3 A 0.5	30	15/02/2024	0	6	39	3	0	3	16	2	16.79
Concrete	Iron	B19/3 B 0.0	31	15/02/2024	11	2	74	2	0	2	10	1	10.49
Concrete	Iron	B19/3 C 0.0	32	15/02/2024	0	3	79	2	0	2	7	1	7.35

Concrete	Iron	B19/3 D 0.0	33	15/02/2024	0	4	28	2	0	2	5	1	5.25
Weatherboard	Iron	B21/3 A 0.0	3	12/02/2024	100	4	612	8	12	4	317	4	332.66
Weatherboard	Iron	B21/3 A 0.1	4	13/02/2024	339	9	1493	16	28	4	207	5	
Weatherboard	Iron	B21/3 A 0.1	5	19/02/2024	236	9	689	12	0	7	177	5	201.48
Weatherboard	Iron	B21/3 A 0.2	6	19/02/2024	139	6	492	8	13	3	98	3	102.84
Weatherboard	Iron	B21/3 A 0.3	7	19/02/2024	142	6	453	8	11	3	127	3	133.27
Weatherboard	Iron	B21/3 A 0.4	8	19/02/2024	0	6	55	3	0	3	12	2	
Weatherboard	Iron	B21/3 A 0.4	9	19/02/2024	21	3	76	3	6	2	19	2	
Weatherboard	Iron	B21/3 A 0.4	10	19/02/2024	18	3	88	3	0	2	20	2	17.84
Weatherboard	Iron	B21/4 A 0.0	13	22/02/2024	73	4	1005	10	0	3	65	2	
Weatherboard	Iron	B21/4 A 0.0	14	22/02/2024	79	4	1006	9	7	2	61	2	
Weatherboard	Iron	B21/4 A 0.0	15	22/02/2024	80	4	996	9	5	2	62	2	65.76
Weatherboard	Iron	B21/4 B 0.0	16	22/02/2024	79	3	485	6	5	1	44	2	46.17
Weatherboard	Iron	B21/4 C 0.0	17	22/02/2024	169	4	940	8	0	3	84	2	88.15
ACM	Iron	B26/3 C 0.0	23	22/02/2024	24	3	70	3	5	1	16	1	16.79
Stone	Iron	B30/3 A 0.0	24	22/02/2024	21	4	282	7	14	3	112	3	
Stone	Iron	B30/3 A 0.0	25	22/02/2024	28	4	303	6	11	3	111	3	
Stone	Iron	B30/3 A 0.0	26	22/02/2024	22	4	265	7	9	3	109	3	116.13
Stone	Iron	B30/3 B 0.0	27	22/02/2024	31	3	150	4	8	2	45	2	47.22
Stone	Iron	B30/3 C 0.0	28	22/02/2024	32	4	97	4	7	2	40	2	41.98
Stone	Iron	B30/3 D 0.0	29	22/02/2024	24	3	123	4	7	2	34	2	35.68
Stone	Iron	B30/3 O 0.0	30	22/02/2024	26	4	119	4	10	2	34	2	35.68
Stone	Iron	B30/3 A 0.1	31	22/02/2024	37	4	160	5	13	2	65	3	68.21
Stone	Iron	B30/3 A 0.2	32	22/02/2024	32	4	72	3	12	2	18	2	18.89
Stone	Iron	B30/3 A 0.3	33	22/02/2024	27	3	78	3	10	1	18	2	18.89
Stone	Iron	B30/4 A 0.0	34	22/02/2024	33	3	216	5	0	3	64	2	
Stone	Iron	B30/4 A 0.0	35	22/02/2024	33	4	250	6	0	4	62	3	
Stone	Iron	B30/4 A 0.0	36	22/02/2024	32	4	278	6	0	4	66	2	67.16
Stone	Iron	B30/4 B 0.0	37	22/02/2024	31	3	138	4	8	1	25	2	26.24
Stone	Iron	B30/4 C 0.0	38	22/02/2024	9	3	89	3	5	1	9	1	9.44
Stone	Iron	B30/4 D 0.0	39	22/02/2024	31	3	109	3	8	1	18	2	18.89
Stone	Iron	B30/4 O 0.0	40	22/02/2024	26	3	105	3	4	1	15	1	15.74
Stone	Iron	B30/4 A 0.1	41	22/02/2024	61	5	90	4	9	2	27	2	28.33
Stone	Iron	B30/4 A 0.2	42	22/02/2024	55	5	97	4	7	2	18	2	18.89
Stone	Iron	B30/4 A 0.3	43	22/02/2024	56	5	90	4	9	2	25	2	26.24
Weatherboard	Iron	B37/2 A 0.0	1	22/02/2024	31	3	892	10	10	3	129	3	
Weatherboard	Iron	B37/2 A 0.0	2	22/02/2024	29	4	810	11	0	5	120	3	
Weatherboard	Iron	B37/2 A 0.0	3	22/02/2024	35	4	1046	13	0	5	122	3	129.78
Weatherboard	Iron	B37/2 B 0.0	4	22/02/2024	41	4	159	5	9	2	37	2	38.83
Weatherboard	Iron	B37/2 C 0.0	5	22/02/2024	25	4	91	4	0	3	24	2	25.19
Weatherboard	Iron	B37/2 D 0.0	6	22/02/2024	13	3	74	3	0	2	16	2	16.79
Weatherboard	Iron	B37/2 O 0.0	7	22/02/2024	30	4	86	3	6	1	17	2	17.84
Weatherboard	Iron	B37/2 A 0.1	8	22/02/2024	42	4	221	6	12	2	52	2	54.57
Weatherboard	Iron	B37/2 A 0.2	9	22/02/2024	36	5	106	5	11	2	23	2	24.14
Weatherboard	Iron	B37/2 A 0.3	10	22/02/2024	39	4	118	4	6	2	25	2	26.24
Weatherboard	Iron	B38/2 A 0.0	11	22/02/2024	161	5	550	8	0	12	1021	9	
Weatherboard	Iron	B38/2 A 0.0	12	22/02/2024	258	7	643	8	0	13	1356	11	
Weatherboard	Iron	B38/2 A 0.0	13	22/02/2024	301	8	709	9	0	14	1303	11	1287.26
Weatherboard	Iron	B38/2 B 0.0	14	22/02/2024	39	4	124	4	0	5	126	3	132.22
Weatherboard	Iron	B38/2 C 0.0	15	22/02/2024	34	3	119	4	0	3	68	2	71.36
Weatherboard	Iron	B38/2 D 0.0	16	22/02/2024	32	4	96	4	8	2	41	2	43.03
Weatherboard	Iron	B38/2 O 0.0	17	22/02/2024	26	4	93	4	7	2	41	2	43.03
Weatherboard	Iron	B38/2 A 0.1	18	22/02/2024	71	5	144	5	10	2	59	3	61.91

Weatherboard	Iron	B38/2 A 0.2	19	22/02/2024	28	4	20	2	6	2	22	2	23.09
Weatherboard	Iron	B38/2 A 0.3	20	22/02/2024	14	4	23	2	7	2	19	2	19.94
Weatherboard	Iron	B45/3 A 0.0	21	22/02/2024	58	4	289	6	17	3	102	3	
Weatherboard	Iron	B45/3 A 0.0	22	22/02/2024	61	5	260	6	20	3	104	3	
Weatherboard	Iron	B45/3 A 0.0	23	22/02/2024	58	4	271	6	13	3	107	3	109.49
Weatherboard	Iron	B45/3 B 0.0	24	22/02/2024	22	3	126	3	0	3	45	2	47.22
Weatherboard	Iron	B45/3 C 0.0	25	22/02/2024	23	3	106	3	0	2	25	2	26.24
Weatherboard	Iron	B45/3 D 0.0	26	22/02/2024	31	4	109	4	7	2	24	2	25.19
Weatherboard	Iron	B45/3 O 0.0	27	22/02/2024	33	4	110	4	6	2	23	2	24.14
Weatherboard	Iron	B45/3 A 0.1	28	22/02/2024	11	3	50	3	11	1	9	1	9.44
Weatherboard	Iron	B45/3 A 0.2	29	22/02/2024	19	3	46	3	9	1	10	2	10.49
Weatherboard	Iron	B45/3 A 0.3	30	22/02/2024	10	3	51	3	9	1	12	2	12.59
Weatherboard	Iron	B46/3 A 0.0	31	22/02/2024	18	3	117	3	7	2	38	2	
Weatherboard	Iron	B46/3 A 0.0	32	22/02/2024	18	3	117	3	6	1	36	2	
Weatherboard	Iron	B46/3 A 0.0	33	22/02/2024	21	3	91	3	6	2	38	2	39.18
Weatherboard	Iron	B46/3 B 0.0	34	22/02/2024	0	6	88	4	5	2	16	2	16.79
Weatherboard	Iron	B46/3 C 0.0	35	22/02/2024	17	3	77	3	0	2	14	1	14.69
Weatherboard	Iron	B46/3 D 0.0	36	22/02/2024	19	3	85	3	6	1	14	1	14.69
Weatherboard	Iron	B46/3 O 0.0	37	22/02/2024	20	3	85	3	6	1	14	1	14.69
Weatherboard	Iron	B46/3 A 0.1	38	22/02/2024	17	3	81	3	0	3	27	2	28.33
Weatherboard	Iron	B46/3 A 0.2	39	22/02/2024	23	3	114	4	0	3	54	2	56.67
Weatherboard	Iron	B46/3 A 0.3	40	22/02/2024	32	3	108	3	7	1	25	2	26.24
Weatherboard	Iron	B47/3 A 0.0	3	22/02/2024	33	4	168	5	11	2	46	2	
Weatherboard	Iron	B47/3 A 0.0	4	22/02/2024	29	4	167	5	0	3	49	2	
Weatherboard	Iron	B47/3 A 0.0	5	22/02/2024	31	4	169	5	0	4	53	2	51.77
Weatherboard	Iron	B47/3 B 0.0	6	22/02/2024	35	4	120	4	7	2	29	2	30.43
Weatherboard	Iron	B47/3 C 0.0	7	22/02/2024	30	4	127	4	6	2	25	2	26.24
Weatherboard	Iron	B47/3 A 0.1	8	22/02/2024	44	5	128	5	8	2	29	2	30.43
Weatherboard	Iron	B47/3 A 0.2	9	22/02/2024	27	4	117	4	10	2	31	2	32.53
Weatherboard	Iron	B47/3 A 0.3	10	22/02/2024	30	4	112	4	8	2	37	2	38.83
Concrete	Iron	B48/3 A 0.0	11	22/02/2024	19	3	1201	12	0	4	70	2	
Concrete	Iron	B48/3 A 0.0	12	22/02/2024	0	4	1243	12	0	3	69	2	
Concrete	Iron	B48/3 A 0.0	13	22/02/2024	16	3	1411	13	7	2	72	2	73.81
Concrete	Iron	B48/3 B 0.0	14	22/02/2024	16	3	167	4	5	1	16	1	16.79
Concrete	Iron	B48/3 C 0.0	15	22/02/2024	16	3	82	3	0	3	21	2	22.04
Concrete	Iron	B48/3 D 0.0	16	22/02/2024	14	3	107	3	0	2	24	2	25.19
Concrete	Iron	B48/3 O 0.0	17	22/02/2024	11	3	87	3	6	1	19	2	19.94
Concrete	Iron	B48/3 A 0.1	19	22/02/2024	23	3	114	4	5	1	19	2	19.94
Concrete	Iron	B48/3 A 0.2	20	22/02/2024	20	3	125	4	7	1	19	2	19.94
Concrete	Iron	B48/3 A 0.3	21	22/02/2024	26	3	75	3	7	1	16	2	16.79
Concrete	Iron	B48/4 A 0.0	22	22/02/2024	40	4	235	5	0	4	109	3	
Concrete	Iron	B48/4 A 0.0	23	22/02/2024	36	4	241	6	0	5	101	3	
Concrete	Iron	B48/4 A 0.0	24	22/02/2024	41	4	222	6	0	5	106	3	110.54
Concrete	Iron	B48/4 B 0.0	25	22/02/2024	33	4	264	6	10	2	55	3	57.72
Concrete	Iron	B48/4 C 0.0	26	22/02/2024	41	5	134	5	0	4	62	3	65.06
Concrete	Iron	B48/4 A 0.1	27	22/02/2024	38	4	160	5	8	3	80	3	83.95
Concrete	Iron	B48/4 A 0.2	28	22/02/2024	49	5	144	5	9	3	74	3	77.66
Concrete	Iron	B48/4 A 0.3	31	22/02/2024	47	4	103	4	0	4	56	3	58.77
Stone	Iron	B56/3 A 0.0	32	22/02/2024	39	3	2744	18	0	5	173	3	
Stone	Iron	B56/3 A 0.0	33	22/02/2024	31	4	2246	18	0	4	117	3	
Stone	Iron	B56/3 A 0.0	34	22/02/2024	42	4	2183	18	0	5	181	4	164.76
Stone	Iron	B56/3 B 0.0	35	22/02/2024	42	4	188	5	9	2	63	2	66.11
Stone	Iron	B56/3 C 0.0	36	22/02/2024	27	3	109	4	0	3	35	2	36.73

Stone	Iron	B56/3 D 0.0	37	22/02/2024	23	3	125	4	0	4	98	3	102.84
Stone	Iron	B56/3 O 0.0	1	22/02/2024	11	3	80	3	0	3	75	2	78.71
Stone	Iron	B56/3 A 0.1	2	22/02/2024	46	5	283	8	0	4	31	3	32.53
Stone	Iron	B56/3 A 0.2	3	22/02/2024	53	4	54	3	6	1	8	1	8.40
Stone	Iron	B56/3 A 0.3	4	22/02/2024	60	4	65	3	6	1	11	1	11.54
Stone	Iron	B56/4 A 0.0	5	22/02/2024	11	3	4995	28	0	8	536	5	
Stone	Iron	B56/4 A 0.0	6	22/02/2024	20	3	6972	35	0	8	780	7	
Stone	Iron	B56/4 A 0.0	7	22/02/2024	13	3	6549	32	0	8	745	6	720.94
Stone	Iron	B56/4 B 0.0	8	22/02/2024	30	3	1428	13	0	4	121	3	126.98
Stone	Iron	B56/4 C 0.0	9	22/02/2024	42	4	206	5	0	3	40	2	41.98
Stone	Iron	B56/4 D 0.0	10	22/02/2024	50	6	176	7	0	4	25	3	26.24
Stone	Iron	B56/4 O 0.0	11	22/02/2024	42	5	180	6	7	2	26	2	27.28
Stone	Iron	B56/4 A 0.1	12	22/02/2024	45	5	2036	20	9	3	89	3	93.40
Stone	Iron	B56/4 A 0.2	13	22/02/2024	24	3	1004	10	4	1	12	1	12.59
Stone	Iron	B56/4 A 0.3	14	22/02/2024	36	3	871	9	5	1	8	1	8.40
Stone	Iron	B56/4 A 0.4	15	22/02/2024	32	3	69	3	5	1	8	1	8.40
Stone	Iron	B55/4 A 0.0	16	22/02/2024	25	3	394	7	0	6	194	4	
Stone	Iron	B55/4 A 0.0	17	22/02/2024	33	4	430	7	0	5	159	3	
Stone	Iron	B55/4 A 0.0	18	22/02/2024	27	4	368	7	0	7	304	5	229.82
Stone	Iron	B55/4 B 0.0	19	22/02/2024	21	3	180	4	4	1	41	2	43.03
Stone	Iron	B55/4 C 0.0	20	22/02/2024	23	3	194	4	0	3	49	2	51.42
Stone	Iron	B55/4 D 0.0	21	22/02/2024	49	4	153	4	0	2	25	2	26.24
Stone	Iron	B55/4 O 0.0	22	22/02/2024	54	4	140	4	0	2	24	2	25.19
Stone	Iron	B55/4 A 0.1	23	22/02/2024	38	4	210	5	7	2	64	2	67.16
Stone	Iron	B55/4 A 0.2	24	22/02/2024	0	5	38	3	6	1	15	2	15.74
Stone	Iron	B55/4 A 0.3	25	22/02/2024	0	4	39	2	0	3	33	2	34.63
Stone	Iron	B55/3 A 0.0	26	22/02/2024	13	3	3964	26	23	5	478	6	
Stone	Iron	B55/3 A 0.0	27	22/02/2024	18	4	3417	26	15	4	287	5	
Stone	Iron	B55/3 A 0.0	28	22/02/2024	17	3	2606	20	0	7	294	5	308.52
Stone	Iron	B55/3 B 0.0	29	22/02/2024	11	3	205	5	0	4	93	3	97.59
Stone	Iron	B55/3 C 0.0	30	22/02/2024	0	5	181	5	0	4	65	2	68.21
Stone	Iron	B55/3 D 0.0	31	22/02/2024	21	3	143	4	7	2	50	2	52.47
Stone	Iron	B55/3 O 0.0	32	22/02/2024	20	4	169	5	0	3	24	2	25.19
Stone	Iron	B55/3 A 0.1	33	22/02/2024	18	3	259	5	8	2	52	2	54.57
Stone	Iron	B55/3 A 0.2	34	22/02/2024	15	3	145	4	6	2	28	2	29.38
Stone	Iron	B55/3 A 0.3	35	22/02/2024	33	5	70	4	9	2	19	2	19.94
Concrete	Iron	B19 TP01 0.0	19	19/03/2024	28	4	141	4	11	3	135	3	143.559
Concrete	Iron	B19 TP01 0.1	20	19/03/2024	20	4	79	4	0	4	45	2	47.853
Concrete	Iron	B19 TP01 0.2	21	19/03/2024	26	4	54	3	8	2	15	2	15.951
Concrete	Iron	B19 TP01 0.3	22	19/03/2024	25	4	62	4	8	2	23	2	24.4582
Concrete	Iron	B19 TP01 0.4	23	19/03/2024	29	5	54	4	7	2	15	2	15.951
Concrete	Iron	B19 TP01 0.5	24	19/03/2024	0	6	51	4	7	2	19	2	20.2046
Concrete	Iron	B19 TP02 0.0	34	19/03/2024	0	4	32	2	0	2	5	1	
Concrete	Iron	B19 TP02 0.0	35	19/03/2024	19	4	90	4	0	3	50	2	29.2435
Concrete	Iron	B19 TP02 0.1	36	19/03/2024	31	3	75	3	7	2	27	2	28.7118
Concrete	Iron	B19 TP02 0.2	37	19/03/2024	26	4	89	4	0	4	92	3	97.8328
Concrete	Iron	B19 TP02 0.3	38	19/03/2024	32	4	78	4	0	4	44	3	46.7896
Concrete	Iron	B19 TP02 0.4	39	19/03/2024	26	5	75	5	9	3	37	3	39.3458
Concrete	Iron	B19 TP02 0.5	40	19/03/2024	35	4	85	4	9	2	13	2	13.8242
Concrete	Iron	B19 TP03 0.0	41	19/03/2024	32	4	267	6	0	8	338	6	
Concrete	Iron	B19 TP03 0.0	42	19/03/2024	29	4	402	7	0	7	332	5	
Concrete	Iron	B19 TP03 0.0	43	19/03/2024	23	3	284	6	0	7	320	5	350.922
Concrete	Iron	B19 TP03 0.1	44	19/03/2024	33	5	421	9	39	6	376	7	399.8384

Concrete	Iron	B19 TP03 0.2	1	19/03/2024	23	4	227	6	42	5	292	5	310.5128
Concrete	Iron	B19 TP03 0.3	2	19/03/2024	0	5	48	3	11	2	57	3	60.6138
Concrete	Iron	B19 TP03 0.4	3	19/03/2024	37	4	450	8	0	14	1371	12	1457.9214
Concrete	Iron	B19 TP03 0.5	4	19/03/2024	0	7	43	4	9	2	17	2	
Concrete	Iron	B19 TP03 0.5	5	19/03/2024	14	5	48	4	10	2	10	2	14.3559
Weatherboard	Iron	B23 TP01 0.15	19	19/03/2024	32	4	109	5	7	2	21	2	22.3314
Weatherboard	Iron	B23 TP02 0.2	21	19/03/2024	27	3	189	5	0	4	82	2	87.1988
Weatherboard	Iron	B23 TP02 0.25	22	19/03/2024	9	3	44	2	0	2	12	1	12.7608
ACM	Iron	B26 TP01 0.1	3	19/03/2024	31	4	68	3	10	2	21	2	22.3314
ACM	Iron	B26 TP01 0.2	4	19/03/2024	44	5	68	4	6	2	11	2	11.6974
ACM	Iron	B26 TP01 0.3	5	19/03/2024	29	4	87	3	9	2	37	2	39.3458
ACM	Iron	B26 TP01 0.4	6	19/03/2024	32	4	175	5	6	1	16	2	17.0144
ACM	Iron	B26 TP01 0.5	7	19/03/2024	16	5	46	4	8	2	15	2	
ACM	Iron	B26 TP01 0.5	8	19/03/2024	21	5	54	4	8	2	12	2	
ACM	Iron	B26 TP01 0.5	9	19/03/2024	25	5	43	4	0	3	20	3	16.6599333
Concrete	Iron	B28 TP01 0.1	10	19/03/2024	0	10	62	7	0	5	17	4	18.0778
Concrete	Iron	B28 TP01 0.1	11	19/03/2024	0	5	66	4	6	2	11	2	11.6974
Concrete	Iron	B28 TP01 0.2	12	19/03/2024	26	4	94	4	8	1	15	2	15.951
Concrete	Iron	B28 TP01 0.3	13	19/03/2024	17	3	79	3	6	1	13	2	13.8242
Concrete	Iron	B28 TP01 0.4	14	19/03/2024	13	3	86	3	6	1	16	2	17.0144
Concrete	Iron	B28 TP01 0.5	15	19/03/2024	20	3	87	3	5	1	17	2	
Concrete	Iron	B28 TP01 0.5	16	19/03/2024	19	3	78	3	6	1	15	2	
Concrete	Iron	B28 TP01 0.5	17	19/03/2024	18	3	82	3	5	1	16	2	17.0144
Concrete	Iron	B53 TP01 0.1	8	19/03/2024	0	4	36	2	6	1	12	1	12.7608
Concrete	Iron	B53 TP01 0.2	9	19/03/2024	29	5	77	4	0	3	11	2	11.6974
Concrete	Iron	B53 TP01 0.3	10	19/03/2024	68	5	81	4	0	2	11	2	11.6974
Concrete	Iron	B53 TP01 0.4	11	19/03/2024	40	5	43	3	6	2	12	2	12.7608
Concrete	Iron	B53 TP02 0.1	12	19/03/2024	42	4	83	4	8	2	13	2	13.8242
Concrete	Iron	B53 TP02 0.2	13	19/03/2024	96	5	121	4	10	2	22	2	23.3948
Concrete	Iron	B53 TP02 0.3	14	19/03/2024	86	5	109	4	12	2	21	2	22.3314
Concrete	Iron	B53 TP02 0.4	15	19/03/2024	96	6	111	4	10	2	23	2	24.4582
Concrete	Iron	B53 TP02 0.5	16	19/03/2024	79	6	74	4	0	3	22	2	23.3948
Concrete	Iron	B53 TP03 0.0	17	19/03/2024	43	5	115	5	12	2	17	2	18.0778
Concrete	Iron	B53 TP03 0.1	18	19/03/2024	57	6	66	4	11	2	22	2	23.3948
Concrete	Iron	B53 TP03 0.2	19	19/03/2024	58	5	109	5	12	2	22	2	23.3948
Concrete	Iron	B53 TP03 0.3	20	19/03/2024	40	4	62	3	9	2	9	2	9.5706
Concrete	Iron	B58 TP01 0.1	20	19/03/2024	36	3	427	7	5	1	22	2	
Concrete	Iron	B58 TP01 0.1	21	19/03/2024	28	4	80	4	6	2	21	2	
Concrete	Iron	B58 TP01 0.1	22	19/03/2024	26	4	113	4	5	1	15	2	20.5590667
Concrete	Iron	B58 TP01 0.2	23	19/03/2024	19	4	124	4	0	3	14	2	14.8876
Concrete	Iron	B58 TP01 0.3	24	19/03/2024	15	4	44	3	8	2	11	2	11.6974
Concrete	Iron	B58 TP01 0.4	25	19/03/2024	16	3	49	3	5	1	11	2	11.6974
Concrete	Iron	B58 TP01 0.5	26	19/03/2024	18	3	43	3	4	1	14	2	14.8876
Concrete	Iron	B58 TP02 0.1	27	19/03/2024	13	3	51	3	0	2	15	2	15.951
Concrete	Iron	B58 TP02 0.2	28	19/03/2024	27	5	89	5	8	2	19	2	20.2046
Concrete	Iron	B58 TP02 0.3	29	19/03/2024	35	4	111	4	10	2	19	2	20.2046
Concrete	Iron	B58 TP02 0.4	30	19/03/2024	54	4	95	4	11	2	21	2	22.3314
Concrete	Iron	B58 TP02 0.5	31	19/03/2024	43	4	96	4	7	2	26	2	
Concrete	Iron	B58 TP02 0.5	32	19/03/2024	56	5	106	4	12	2	21	2	
Concrete	Iron	B58 TP02 0.5	33	19/03/2024	58	5	108	4	9	2	25	2	25.5216
Concrete	Iron	B58 TP03 0.0	34	19/03/2024	29	4	77	4	6	1	13	2	13.8242
Concrete	Iron	B58 TP03 0.1	35	19/03/2024	33	3	72	3	7	1	17	1	18.0778
Concrete	Iron	B58 TP03 0.2	36	19/03/2024	29	3	70	3	5	1	16	1	17.0144

Concrete	Iron	B58 TP03 0.3	37	19/03/2024	30	3	72	3	0	2	17	1	18.0778
Concrete	Iron	B58 TP03 0.4	38	19/03/2024	27	3	65	3	6	1	16	1	17.0144
Concrete	Iron	B58 TP03 0.5	39	19/03/2024	38	3	82	3	8	1	14	1	14.8876
Iron	Iron	B59 TP01 0.1	29	19/03/2024	22	4	53	4	8	2	13	2	13.8242
Iron	Iron	B59 TP01 0.5	21	19/03/2024	15	4	84	4	0	3	17	2	18.0778
Iron	Iron	B59 TP02 0.1	30	19/03/2024	309	9	6224	41	13	2	26	2	27.6484
Iron	Iron	B59 TP02 0.5	23	19/03/2024	18	4	80	4	11	2	18	2	19.1412
Iron	Iron	B59 TP03 0.1	31	19/03/2024	27	4	115	4	6	2	24	2	25.5216
Iron	Iron	B59 TP03 0.5	32	19/03/2024	22	5	67	4	7	2	15	2	15.951
Iron	Iron	B59 TP04 0.1	1	19/03/2024	38	4	138	4	11	2	34	2	36.1556
Iron	Iron	B59 TP04 0.2	2	19/03/2024	32	4	69	4	8	2	20	2	21.268
Iron	Iron	B59 TP04 0.3	3	19/03/2024	13	3	51	3	6	1	12	2	12.7608
Iron	Iron	B59 TP04 0.4	4	19/03/2024	0	4	39	2	10	1	11	1	11.6974
Iron	Iron	B59 TP04 0.5	7	19/03/2024	9	3	34	2	7	1	11	1	11.6974
Weatherboard	Iron	B62 TP01 0.2	23	19/03/2024	10	3	42	2	6	1	8	1	8.5072
Weatherboard	Iron	B62 TP01 0.4	25	19/03/2024	15	3	53	3	4	1	6	1	6.3804
Weatherboard	Iron	B62 TP01 0.4	26	19/03/2024	20	4	63	3	9	1	6	2	6.3804
Weatherboard	Iron	B62 TP01 0.4	27	19/03/2024	15	4	48	3	6	1	6	2	6.3804
Weatherboard	Iron	B62 TP01 0.5	28	19/03/2024	17	4	48	3	0	2	10	2	10.634
Concrete	Iron	B63 TP01 0.0	6	19/03/2024	0	3	1751	11	0	3	112	2	119.1008
Concrete	Iron	B63 TP01 0.1	8	19/03/2024	40	4	94	4	10	3	68	3	72.3112
Concrete	Iron	B63 TP01 0.2	11	19/03/2024	53	5	149	5	0	28	5957	41	6334.6738
Concrete	Iron	B63 TP01 0.3	10	19/03/2024	48	4	358	7	0	7	423	6	449.8182
Concrete	Iron	B63 TP01 0.4	12	19/03/2024	46	3	76	3	11	1	26	2	27.6484
Concrete	Iron	B63 TP01 0.5	13	19/03/2024	29	4	67	3	16	2	53	2	
Concrete	Iron	B63 TP01 0.5	14	19/03/2024	37	4	74	3	13	2	49	2	
Concrete	Iron	B63 TP01 0.5	15	19/03/2024	51	4	89	4	11	3	89	3	67.7031333
Concrete	Iron	B63 TP02 0.1	16	19/03/2024	35	5	64	4	10	2	34	3	36.1556
Concrete	Iron	B63 TP02 0.2	17	19/03/2024	28	4	224	6	12	2	14	2	14.8876
Concrete	Iron	B63 TP02 0.3	18	19/03/2024	16	4	69	3	7	2	15	2	15.951
Concrete	Iron	B63 TP02 0.4	19	19/03/2024	10	3	37	2	5	1	11	1	11.6974
Concrete	Iron	B63 TP02 0.5	20	19/03/2024	12	3	38	2	4	1	10	1	
Concrete	Iron	B63 TP02 0.5	21	19/03/2024	0	4	41	2	4	1	12	1	
Concrete	Iron	B63 TP02 0.5	22	19/03/2024	0	4	43	3	5	1	9	1	10.9884667
Concrete	Iron	B71 TP01 0.1	33	19/03/2024	26	3	71	3	6	1	15	1	15.951
Concrete	Iron	B71 TP01 0.2	34	19/03/2024	18	3	62	3	6	1	13	1	13.8242
Concrete	Iron	B71 TP01 0.3	35	19/03/2024	32	5	61	4	10	2	8	2	8.5072
Concrete	Iron	B71 TP01 0.4	36	19/03/2024	20	4	63	4	0	3	15	2	15.951
Concrete	Iron	B71 TP01 0.5	37	19/03/2024	23	4	64	4	0	3	12	2	12.7608



Certificate of Analysis

Page 1 of 3

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	COMP 02	COMP 03	COMP 04	COMP 05
		06-Mar-2023	06-Mar-2023	06-Mar-2023	06-Mar-2023	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



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:		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



Certificate of Analysis

Page 1 of 1

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	1090A B2/1 A 0.4	1090A B2/1 O 0.0	1090A B5/1 A 0.1	1090A B5/1 B 0.0
	06-Mar-2023	06-Mar-2023	06-Mar-2023	07-Mar-2023	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.

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



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.



Certificate of Analysis

Page 1 of 1

Client:	Hail Environmental	Lab No:	3197666	SPv1
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.

Kim Harrison MSc
Client Services Manager - Environmental



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.



Certificate of Analysis

Page 1 of 2

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 A 0.0	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



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:		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

Certificate of Analysis

Page 1 of 5

Client:	Hail Environmental	Lab No:	3475401	SPv2
Contact:	Dave Bull	Date Received:	22-Feb-2024	
	C/- Hail Environmental	Date Reported:	18-Mar-2024	
	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:	1090A B11/3 A 0.0 15-Feb-2024	1090A B11/3 A 0.1 15-Feb-2024	1090A B12/2 A 0.2 15-Feb-2024	1090A B12/4 A 0.1 15-Feb-2024	1090A B12/4 B 0.0 15-Feb-2024
Lab Number:	3475401.1	3475401.2	3475401.3	3475401.4	3475401.5
Individual Tests					
SPLP Sample Weight	g	50	50	50	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	De-ionised Water, pH 5.8 +/- 0.4
SPLP Final pH	pH Units	7.2	8.3	9.0	7.9
Total Recoverable Lead	mg/kg dry wt	1,860	740	182	270
Total Recoverable Zinc	mg/kg dry wt	380	-	-	-
Sample Name:	1090A B15/4 B 0.0 15-Feb-2024	1090A B15/5 A 0.0 15-Feb-2024	1090A B19/2 O 0.1 15-Feb-2024	1090A B19/2 A 0.0 16-Feb-2024	1090A B19/3 A 0.1 16-Feb-2024
Lab Number:	3475401.6	3475401.7	3475401.8	3475401.9	3475401.10
Individual Tests					
SPLP Sample Weight	g	-	-	50	-
SPLP Extractant Type*		-	-	De-ionised Water, pH 5.8 +/- 0.4	-
SPLP Final pH	pH Units	-	-	8.6	-
Total Recoverable Lead	mg/kg dry wt	650	910	300	34
Total Recoverable Zinc	mg/kg dry wt	-	-	550	-
Sample Name:	1090A B2/3 A 0.6 13-Feb-2024	1090A B2/4 A 0.5 13-Feb-2024	1090A B21/3 A 0.0 19-Feb-2024	1090A B21/4 A 0.0 22-Feb-2024	1090A B28 TP01 0.2 16-Feb-2024
Lab Number:	3475401.11	3475401.12	3475401.13	3475401.14	3475401.15
Individual Tests					
SPLP Sample Weight	g	-	50	-	-
SPLP Extractant Type*		-	De-ionised Water, pH 5.8 +/- 0.4	-	-
SPLP Final pH	pH Units	-	8.4	-	-
Total Recoverable Lead	mg/kg dry wt	340	410	340	15.4
Total Recoverable Zinc	mg/kg dry wt	-	5,400	-	-
Sample Name:	1090A B3/1 A 0.2 13-Feb-2024	1090A B30/3 A 0.0 22-Feb-2024	1090A B37/2 A 0.0 22-Feb-2024	1090A B38/2 A 0.0 22-Feb-2024	1090A B45/3 A 0.0 22-Feb-2024
Lab Number:	3475401.16	3475401.17	3475401.18	3475401.19	3475401.20
Individual Tests					
SPLP Sample Weight	g	-	-	50	-
SPLP Extractant Type*		-	-	De-ionised Water, pH 5.8 +/- 0.4	-
SPLP Final pH	pH Units	-	-	7.6	-
Total Recoverable Lead	mg/kg dry wt	25	160	1,450	114



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:		1090A B46/3 A 0.0 22-Feb-2024	1090A B47/3 A 0.0 22-Feb-2024	1090A B48/3 A 0.0 22-Feb-2024	1090A B53 TP02 0.2 19-Feb-2024	1090A B53 TP03 0.0 19-Feb-2024	
Lab Number:		3475401.21	3475401.22	3475401.23	3475401.24	3475401.25	
Individual Tests							
Total Recoverable Lead		mg/kg dry wt	63	61	74	22	24
Sample Name:		1090A B55/3 A 0.0 22-Feb-2024	1090A B55/4 A 0.0 22-Feb-2024	1090A B56/3 A 0.0 22-Feb-2024	1090A B56/4 A 0.0 22-Feb-2024	1090A B56/4 A 0.4 22-Feb-2024	
Lab Number:		3475401.26	3475401.27	3475401.28	3475401.29	3475401.30	
Individual Tests							
SPLP Sample Weight		g	50	50	50	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	De-ionised Water, pH 5.8 +/- 0.4	-
SPLP Final pH		pH Units	7.4	7.5	7.5	7.3	-
Total Recoverable Lead		mg/kg dry wt	260	175	178	790	28
Total Recoverable Zinc		mg/kg dry wt	1,630	270	3,300	7,100	-
Sample Name:		1090A B58 TP01 0.1 19-Feb-2024	1090A B58 TP02 0.1 19-Feb-2024	1090A B59 TP01 0.1 16-Feb-2024	1090A B59 TP01 0.5 15-Feb-2024	1090A B59 TP02 0.1 16-Feb-2024	
Lab Number:		3475401.31	3475401.32	3475401.33	3475401.34	3475401.35	
Individual Tests							
Dry Matter		g/100g as rcvd	-	-	63	69	87
SPLP Sample Weight		g	-	-	-	-	50
SPLP Extractant Type*			-	-	-	-	De-ionised Water, pH 5.8 +/- 0.4
SPLP Final pH		pH Units	-	-	-	-	9.1
Total Recoverable Lead		mg/kg dry wt	21	26	18.3	21	87
Total Recoverable Zinc		mg/kg dry wt	-	-	-	-	360
Acid Herbicides‡			-	-	See attached report	See attached report	See attached report
Sample Name:		1090A B59 TP02 0.5 16-Feb-2024	1090A B59 TP03 0.0 16-Feb-2024	1090A B59 TP03 0.5 16-Feb-2024	1090A B59 TP04 0.1 19-Feb-2024	1090A B59 TP04 0.5 19-Feb-2024	
Lab Number:		3475401.36	3475401.37	3475401.38	3475401.39	3475401.40	
Individual Tests							
Dry Matter		g/100g as rcvd	73	75	67	88	65
Total Recoverable Lead		mg/kg dry wt	18.2	83	21	32	19.9
Acid Herbicides‡			See attached report	See attached report	See attached report	See attached report	-
Sample Name:		1090A B63 TP01 0.2 16-Feb-2024	1090A B63 TP02 0.5 16-Feb-2024	1090A B71 TP01 0.5 16-Feb-2024	1090A DUP01 15-Feb-2024	1090A DUP02 16-Feb-2024	
Lab Number:		3475401.41	3475401.42	3475401.43	3475401.44	3475401.45	
Individual Tests							
Total Recoverable Lead		mg/kg dry wt	6,000	16.1	17.9	790	370
Sample Name:		1090A DUP03 16-Feb-2024	1090A SP04 19-Feb-2024	1090A SP08 19-Feb-2024	Composite of 1090A B59 TP01 0.1, 1090A B59 TP02 0.1, 1090A B59 TP03 0.0 and 1090A B59 TP04 0.1		
Lab Number:		3475401.46	3475401.47	3475401.48	3475401.49		
Individual Tests							
Dry Matter		g/100g as rcvd	-	-	-	-	79
Total Recoverable Lead		mg/kg dry wt	98	-	-	-	-
Heavy Metals, Screen Level							
Total Recoverable Arsenic		mg/kg dry wt	-	3	4	-	
Total Recoverable Cadmium		mg/kg dry wt	-	0.11	0.11	-	
Total Recoverable Chromium		mg/kg dry wt	-	7	9	-	
Total Recoverable Copper		mg/kg dry wt	-	19	18	-	
Total Recoverable Lead		mg/kg dry wt	-	35	38	-	
Total Recoverable Nickel		mg/kg dry wt	-	3	4	-	
Total Recoverable Zinc		mg/kg dry wt	-	58	63	-	

Sample Type: Soil					
Sample Name:		1090A DUP03 16-Feb-2024	1090A SP04 19-Feb-2024	1090A SP08 19-Feb-2024	Composite of 1090A B59 TP01 0.1, 1090A B59 TP02 0.1, 1090A B59 TP03 0.0 and 1090A B59 TP04 0.1
Lab Number:		3475401.46	3475401.47	3475401.48	3475401.49
Organochlorine Pesticides Screening in Soil					
Aldrin	mg/kg dry wt	-	-	-	< 0.013
alpha-BHC	mg/kg dry wt	-	-	-	< 0.013
beta-BHC	mg/kg dry wt	-	-	-	< 0.013
delta-BHC	mg/kg dry wt	-	-	-	< 0.013
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	< 0.013
cis-Chlordane	mg/kg dry wt	-	-	-	< 0.013
trans-Chlordane	mg/kg dry wt	-	-	-	< 0.013
2,4'-DDD	mg/kg dry wt	-	-	-	< 0.013
4,4'-DDD	mg/kg dry wt	-	-	-	< 0.013
2,4'-DDE	mg/kg dry wt	-	-	-	< 0.013
4,4'-DDE	mg/kg dry wt	-	-	-	< 0.013
2,4'-DDT	mg/kg dry wt	-	-	-	< 0.013
4,4'-DDT	mg/kg dry wt	-	-	-	0.023
Total DDT Isomers	mg/kg dry wt	-	-	-	< 0.08
Dieldrin	mg/kg dry wt	-	-	-	< 0.013
Endosulfan I	mg/kg dry wt	-	-	-	< 0.013
Endosulfan II	mg/kg dry wt	-	-	-	< 0.013
Endosulfan sulphate	mg/kg dry wt	-	-	-	< 0.013
Endrin	mg/kg dry wt	-	-	-	< 0.013
Endrin aldehyde	mg/kg dry wt	-	-	-	< 0.013
Endrin ketone	mg/kg dry wt	-	-	-	< 0.013
Heptachlor	mg/kg dry wt	-	-	-	< 0.013
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.013
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.013
Methoxychlor	mg/kg dry wt	-	-	-	< 0.013
Sample Type: Aqueous					
Sample Name:		1090A B11/3 A 0.0 [SPLP Extract]	1090A B11/3 A 0.1 [SPLP Extract]	1090A B12/2 A 0.2 [SPLP Extract]	1090A B12/4 B 0.0 [SPLP Extract]
Lab Number:		3475401.50	3475401.51	3475401.52	3475401.53
Individual Tests					
Total Lead	g/m ³	0.058	0.035	0.0166	0.0134
Total Zinc	g/m ³	0.031	-	-	-
Sample Name:		1090A B21/3 A 0.0 [SPLP Extract]	1090A B38/2 A 0.0 [SPLP Extract]	1090A B55/3 A 0.0 [SPLP Extract]	1090A B55/4 A 0.0 [SPLP Extract]
Lab Number:		3475401.55	3475401.56	3475401.57	3475401.58
Individual Tests					
Total Lead	g/m ³	0.036	0.033	0.0054	0.0093
Total Zinc	g/m ³	0.129	-	0.064	0.0146 #1
Sample Name:		1090A B56/4 A 0.0 [SPLP Extract]		1090A B59 TP02 0.1 [SPLP Extract]	
Lab Number:		3475401.60		3475401.61	
Individual Tests					
Total Lead	g/m ³	0.0099		0.0055	
Total Zinc	g/m ³	0.48		0.0145	

Analyst's Comments

* Analysis subcontracted to an external provider. Refer to the Summary of Methods section for more details.

#1 It should be noted that the blank SPLP extract contained an elevated level of zinc (0.0036g/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

Appendix No.1 - Analytica Report

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%.	-	1-48
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%.	-	1-46
Soil Prep Dry for Organics, Trace*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	33-40
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	33-40, 49
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-46
Composite Environmental Solid Samples*	Individual sample fractions mixed together to form a composite fraction.	-	33, 35, 37, 39
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	1-46
Total Recoverable Zinc	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	4 mg/kg dry wt	1, 9, 13, 26-29, 35
Acid Herbicides	Subcontracted to Analytica Laboratories, Hamilton.	-	33-39
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	47-48
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	49
SPLP Profile*	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1312.	-	1-3, 5, 9, 13, 19, 26-29, 35
SPLP Profile			
SPLP Sample Weight	Gravimetric. US EPA 1312.	0.1 g	1-3, 5, 9, 13, 19, 26-29, 35
SPLP Extractant Type*	US EPA 1312 (Modified for New Zealand conditions to use De-ionised Water unless otherwise specified).	-	1-3, 5, 9, 13, 19, 26-29, 35
SPLP Final pH	pH meter. US EPA 1312.	0.1 pH Units	1-3, 5, 9, 13, 19, 26-29, 35

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) : Online Edition.	-	50-61
Total Lead	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.00011 g/m ³	50-61
Total Zinc	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.0011 g/m ³	50, 54-55, 57-61

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 29-Feb-2024 and 18-Mar-2024. 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

Proactively Released by
Land Information New Zealand



Analytica Laboratories Limited
Ruakura Research Centre
10 Bisley Road
Hamilton
sales@analytica.co.nz
www.analytica.co.nz

Certificate of Analysis

R J Hill Laboratories Limited
Private Bag 3205
Hamilton

Attention: Environmental Reports Officers
Phone: 07 858 2000
Email: EnvJobEnquiry@hill-labs.co.nz

Lab Reference: 24-08007
Submitted by:
Date Received: 11/03/2024
Testing Initiated: 12/03/2024
Date Completed: 15/03/2024
Order Number: 161531
Reference: fbSubAnalytica

Sampling Site:

Report Comments

Samples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories (or at the subcontracted laboratories, when applicable). Samples were in acceptable condition unless otherwise noted on this report. Specific testing dates are available on request.

Acid Herbicides in Soil

Client Sample ID			3475401.33	3475401.34	3475401.35	3475401.36	3475401.37
Date Sampled							
Analyte	Unit	Reporting Limit	24-08007-1	24-08007-2	24-08007-3	24-08007-4	24-08007-5
2,4,5-Trichlorophenoxyacetic acid	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
2,4,5-Trichlorophenoxypropionic acid	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
2,4-Dichlorophenoxyacetic acid	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
(2,4-Dichlorophenoxy)butanoic acid	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Acifluorfen	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Bentazone	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoxynil	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Clopyralid	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Dicamba	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Dichlorprop	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Fluazifop	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Fluroxypyr	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Haloxypol	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
MCPA	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
MCPB	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Mecoprop	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Oryzalin	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050

All tests reported herein have been performed in accordance with the laboratory's scope of accreditation with the exception of tests marked *, which are not accredited.
This test report shall not be reproduced except in full, without the written permission of Analytica Laboratories.



Acid Herbicides in Soil

Client Sample ID			3475401.33	3475401.34	3475401.35	3475401.36	3475401.37
Date Sampled							
Pentachlorophenol	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Picloram	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Quizalofop	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
2,3,4,6-Tetrachlorophenol	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Triclopyr	mg/kg dry wt	0.05	<0.050	<0.050	<0.050	<0.050	<0.050

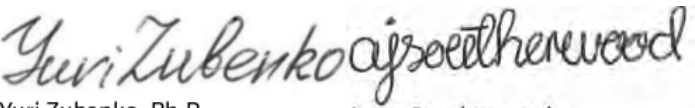
Acid Herbicides in Soil

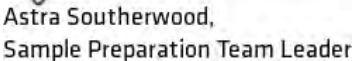
Client Sample ID			3475401.38	3475401.39
Date Sampled				
Analyte	Unit	Reporting Limit	24-08007-6	24-08007-7
2,4,5-Trichlorophenoxyacetic acid	mg/kg dry wt	0.05	<0.050	<0.050
2,4,5-Trichlorophenoxypropionic acid	mg/kg dry wt	0.05	<0.050	<0.050
2,4-Dichlorophenoxyacetic acid	mg/kg dry wt	0.05	<0.050	<0.050
(2,4-Dichlorophenoxy)butanoic acid	mg/kg dry wt	0.05	<0.050	<0.050
Acifluorfen	mg/kg dry wt	0.05	<0.050	<0.050
Bentazone	mg/kg dry wt	0.05	<0.050	<0.050
Bromoxynil	mg/kg dry wt	0.05	<0.050	<0.050
Clopyralid	mg/kg dry wt	0.05	<0.050	<0.050
Dicamba	mg/kg dry wt	0.05	<0.050	<0.050
Dichlorprop	mg/kg dry wt	0.05	<0.050	<0.050
Fluazifop	mg/kg dry wt	0.05	<0.050	<0.050
Fluroxypyr	mg/kg dry wt	0.05	<0.050	<0.050
Haloxypop	mg/kg dry wt	0.05	<0.050	<0.050
MCPA	mg/kg dry wt	0.05	<0.050	<0.050
MCPB	mg/kg dry wt	0.05	<0.050	<0.050
Mecoprop	mg/kg dry wt	0.05	<0.050	<0.050
Oryzalin	mg/kg dry wt	0.05	<0.050	<0.050
Pentachlorophenol	mg/kg dry wt	0.05	<0.050	<0.050
Picloram	mg/kg dry wt	0.05	<0.050	<0.050
Quizalofop	mg/kg dry wt	0.05	<0.050	<0.050
2,3,4,6-Tetrachlorophenol	mg/kg dry wt	0.05	<0.050	<0.050
Triclopyr	mg/kg dry wt	0.05	<0.050	<0.050

Method Summary

Acid Herbicides in Soil

A portion of dried and sieved (<2mm) soil sample is extracted with acidified methanol and diluted with acetic acid followed by LC-MS/MS analysis. Final results in mg/kg are based on dry sieved material <2mm. In accordance with in-house procedure.


Yuri Zubenko, Ph.D.
Senior Technologist


Astra Southerwood,
Sample Preparation Team Leader

Proactively Released by
Land Information New Zealand

Appendix D

QA/QC

Item	Description
Field Quality Assurance	
Sampling Team Details	Elliot Bish, Senior Environmental Scientist, FTL Anna Carter, Contaminated Site Consultant, HAIL Environmental
Intended duplicate/blank frequency	- Asbestos – Duplicates not collected for this round of sampling. - Four replicate soil samples were analysed for total recoverable lead. The mean relative percentage difference (RPD) between the replicate lead concentrations was 12% and within the overall data quality objective of no more than 30%. One replicate soil sample was analysed using SPLP for lead. The RPD between the replicate lead concentrations was 13%.
Sample Records	- RJ Hill Laboratories & Focus Eurofins chain of custody forms. - Sample locations shown in Figures 33097/ADSI/B02 – 33097/ADSI/B75 & 33097/NBA01 – 33097NBA05 - Site observations stated in main report.
Chain of Custody	- FTL/RJ Hill Laboratories & Focus Eurofins standard forms. - Directly taken to lab by FTL & HAIL.
Other	- All field work was completed in accordance with the current FTL & HAIL field procedures, which are designed to eliminate cross-contamination and associated 'false positive' and 'false negative' sampling errors. - Between samples all sampling utensils were triple washed with potable tap water, then cleaned with a proprietary laboratory grade phosphate free detergent (Decon 90), and finally rinsed with clean water. During sampling, clean latex laboratory gloves were worn. - All samples were deposited into laboratory supplied clean glass jars or sampling bags, and placed into a ruggedised container. All samples were transported to an IANZ accredited laboratory under standard FTL & HAIL chain of custody procedures.
Laboratory QA/QC	
Analytical methods and detection limits	- See Appendices B and C (RJ Hill Laboratories & Focus Eurofins transcripts). - Compliance with sample holding times.
QA/QC Data evaluation	
General	Comparison of laboratory results with field observations