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Earlsbrook Residential Subdivision

1532 Springs Road, Lincoln

STAGE 2 - SITE VALIDATION REPORT

Earlsbrook West Residential Limited

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1.0 INTRODUCTION

Earlsbrook West Residential Limited commissioned CMW Geosciences (CMW) to prepare this Site Validation Report (SVR) summarising soil contamination remedial works conducted as part of the earthworks for Earlsbrook Residential Subdivision Stage 2 at 1532 Springs Road, Lincoln. This SVR has been prepared to satisfy the requirements of Condition 20 of Environment Canterbury (ECan) Consent CRC260232 for earthworks over a confined aquifer as well as: CRC260232, CRC260234, CRC261236, and Selwyn District Council (SDC) Stage 2 subdivision and land use consents RC255497A and RC255498A. The current site layout is indicated on the Inovo Projects Ltd (Inovo) plans in Appendix A1.

This SVR has been prepared in accordance with Ministry for the Environment (MfE) Contaminated Land Management Guidelines No.1¹, and has been reviewed by a Suitably Qualified and Experienced Practitioner (SQEP) as required by CRC260232 and RC255497. This SVR is subject to the limitations attached.

2.0 DETAILED SITE INVESTIGATION

A Detailed Site Investigation² (DSI) was carried out on the site by Tetra Tech Coffey during 2025. The DSI followed and included the results of a Tetra Tech Coffey Preliminary Site Investigation conducted in 2020.

The DSI detected the presence of a number of heavy metals at concentrations above background with Lead exceeding Soil Contaminant Standards (SCS) for residential land use (10% produce consumption) associated with existing and former buildings present at 1532 Springs Road.

A known landfill in the southeastern corner of the site (refer to Appendix A1) was investigated. Investigations indicated the landfill was approximately 35 x 180m (~6,450m²) in aerial extent and between ~2 and 4m deep. Soil samples results indicated the presence of various heavy metals above background concentrations with one sample returning an arsenic concentration above SCS for residential land use. Asbestos was not detected in the samples analysed.

A known offal pit in the west of the site (refer to Appendix A1) was investigated. Investigations indicated the offal pit was approximately 6 - 16 x 90m (850m²) in aerial extent and between 2 and 4 m deep. Soil samples indicated the presence of various heavy metals above background concentrations with six samples returning an arsenic concentration above SCS for residential land use. Asbestos was not detected in the samples analysed.

3.0 SOIL CONTAMINATION REMEDIAL WORKS

Remediation of areas of contamination exceeding SCS for residential land use was required and therefore a Remediation Action Plan³ (RAP) was initially prepared by Tetra Tech Coffey setting out remedial works requirements.

The RAP was revised by Tetra Tech Coffey in 14 October 2025 (Rev 1)⁴, 22 January 2026 (Rev2.2)⁵, and by CMW in February 2026⁶. The reviews allowed for alternate excavated materials sorting and disposal areas and are detailed in Sections 3.2.1.1 to 3.2.1.3 below.

¹ Ministry for the Environment. 2021. Contaminated land management guidelines No 1: Reporting on contaminated sites in New Zealand (Revised 2021). Wellington: Ministry for the Environment.

² Tetra Tech Coffey; titled, Earlsbrook West Residential Subdivision Stages 2 & 3 Detailed Site Investigation; Dated, 10 June 2025.

³ Tetra Tech Coffey; titled, Earlsbrook Residential Subdivision Stage 2 Remediation Action Plan; dated, 10 June 2025.

⁴ Tetra Tech Coffey; titled, Earlsbrook Residential Subdivision Stage 2 Remediation Action Plan Rev1; dated, 14 October 2025

⁵ Tetra Tech Coffey; titled, Earlsbrook Residential Subdivision Stage 2 Remediation Action Plan Rev2.2; dated, 22 January 2026

⁶ CMW Geosciences; titled, Earlsbrook Stage 2 Remediation Action Plan Rev 0; dated, 19 February 2026

The remedial works described below were conducted in accordance with the RAP (including revisions). Other than the landfill and offal pit being of greater extent than initially understood, no significant variations in remedial works occurred from those set out in the RAPs.

Soil contamination remedial works were conducted over the period September 2025 to May 2026. A summary of the works conducted, including validation sampling and validation results is set out in the following sections:

- Section 3.1 – 1532 Springs Road.
- Section 3.2 – Landfill.
- Section 3.3 – Offal Pit.

All soil validation sampling was conducted by a Tetra Tech Coffey or CMW Geosciences engineer under the supervision of a SQEP in accordance with MfE Contaminated Land Management Guidelines No.5⁷ and the BRANZ Asbestos guidelines⁸. All collected samples were submitted to IANZ accredited Hills Laboratories Ltd, with samples variously analysed for heavy metals and asbestos.

Removal of material from across the site was minimised as much as feasible; however, where material was removed, it is discussed in the following section, with total tonnages removed summarised below:

- Pro Tranz Earthmoving Leggat Road, Templeton = 67.38 Tonnes (refer to appendix D2)
- Kate Valley Landfill = 113.4 Tonnes (refer to appendix D3)
- Canterbury Environmental Solutions = 654.95 Tonnes (refer to appendix D1 & D4)

3.1 1532 Springs Road (Lots: 245, 246, 255 & 256)

Remedial works were conducted in the area of buildings that were formally present in the east of the site adjacent to 1532 Springs Road as follows:

- Buildings were demolished and removed.
- An excavation (~0.1m site scrape) was carried out over the former location and curtilage area of the demolished buildings.
- Validation samples (S2 – 1532 H Val – 01 to 05, 5 samples) were collected (4 from within the site scrape and 1 south of the scrape) from the locations indicated in Appendix A2. All collected samples were analysed for heavy metals. Validation sample analytical results are summarised in Appendix B1. The laboratory report is included in Appendix C1. Validation results can be summarised as follows:
 - No analysed heavy metals were detected at concentrations in excess of SCS for residential land use (10% produce).

One or more of cadmium, lead and zinc were detected at concentrations in excess of background in all 5 validation samples. Approximately 84 tonnes of excavated contaminated materials from this area of the site were disposed of offsite to the Canterbury Environmental Solutions facility at Taiko. Disposal receipts are included in Appendix D1.

The area has been filled with ~1.0m of site sourced cleanfill and topsoil (silt and sand).

⁷ Ministry for the Environment. 2021. Contaminated land management guidelines No 5: Site investigation and analysis of soils (Revised 2021). Wellington: Ministry for the Environment.

⁸ BRANZ; New Zealand Guidelines for assessing and managing asbestos in soil (November 2017).

3.2 Landfill (Lots: 250-251 & 399-407 & 410-418)

3.2.1 Excavation and Stockpiling

3.2.1.1 Tetra Tech Coffey RAP Rev 1 – 14 October 2025

Excavation of the landfill began in early November 2025, following the procedure according to the RAP at the time (Rev 1):

- Landfill remedial works commenced in the southeastern corner of the landfill.
- Landfill materials were excavated and removed to a processing area beside the landfill, where the removed materials were screened / sorted into separate materials (concrete, metal, wood, processed timber, general refuse and soil). Residual soils were removed from metal and wood etc prior to their removal from the site.
- Recovered metals were disposed of as scrap metals salvage.
- Wood (tree stumps) was taken by the farmer to be added to his burn piles.
- Refuse, including any recovered machined timber (potentially treated or painted) was disposed of offsite to Kate Valley Landfill.
- Remaining soil was stockpiled (maximum stockpile sizes of ~150m³) adjacent to the landfill for validation sampling and analysis.
- Validation sampling of the stockpiles was conducted with samples collected at an approximate rate / density of 1 sample per 50m³. All collected samples were submitted to Hills Laboratory and analysed for heavy metals. Initially, samples were not analysed for asbestos as the DSI samples did not show asbestos present. However, potential asbestos (in the form of a cement board fragment) was observed visually during early stockpile sampling. Following this observation, collected validation samples were also analysed for asbestos (presence / absence in the early samples with quantitative analysis from stockpile 2 onwards). Validation sample results are summarised in Appendix B3 with laboratory reports included as Appendix C3.
- Stockpiles where asbestos was detected have been stockpiled within the landfill sorting area west of Stage 2 (refer Section 6) pending a decision on management (offsite disposal or onsite containment in a future Earlsbrook Stage).
- Soil represented by validation sample results above SCS for commercial / industrial land use was removed from site and disposed of at a licenced receival facility, either Taiko or Kate Valley. Refer to Appendix D.
- Soil represented by validation results that exceed SCS for residential land use, but were less than SCS for commercial / industrial land use was stockpiled on the future commercial area in Stage 3. (The commercial area is further discussed in Section 6.)
- Soil represented by validation results < SCS for residential land use was blended with gravel (to improve geotechnical properties) and returned to the landfill excavation in compacted layers (post validation sampling of the excavated landfill area, refer Section 3.2.2).

The screened soil and gravel blend was compacted in the landfill excavation up to 1.0m below finished level. A cleanfill cap of 1.0m thickness (~0.7m silt followed by ~0.35m of topsoil) was placed directly above the contaminated soil/gravel blend. The cap materials used are discussed in Section 5.

Processed landfill material remains on Lot 5011, the commercial area (Lot 6001) and west of stage 2 as discussed in Section 6.

On 5 November 2025 additional landfill material was discovered north of the known landfill site, in the location of Road 23 adjacent to Springs Road, and extending north into Lots 250 and 251. This additional landfill area was excavated and remediated as per the methodology laid out above.

3.2.1.2 Tetra Tech Coffey RAP Rev 2.1 – 16 December 2025

The RAP was revised (Rev2.1 dated 16 December 2025) with changes made to allow stockpiling and screening of landfill material at a different location; the location of the borrow pit (Lots 492, 430, 440, 441 & 442) as shown in the Over All Site Plan in Appendix A1.

When sorting and stockpiling in this area was shifted as per the CMW RAP Rev 0 (refer Section 3.2.13 below), and the stockpiles removed, the area was scraped and validated, predominantly visually, with 3 validation samples collected (“Landfill Sorting Val 00s”). Each sample was analysed for heavy metals and asbestos (semi quantitative). Validation sample locations are indicated in Appendix A4. The results are summarised in Appendix B7 with laboratory reports included in Appendix C7.

- All heavy metals were present at concentrations less than SCS for residential land use.
- No asbestos was detected in the samples analysed.

3.2.1.3 CMW RAP Rev 0 – 19 February 2026

The RAP was rewritten by CMW (Rev0 dated 19 February 2026) with changes made to allow stockpiling and screening of landfill material, both west of Stage 2 and on Lot 5011 as shown in Appendix A1.

3.2.2 Landfill Validation Sampling

- The primary validation method for landfill extent was visual. Inspections undertaken by Tetra Tech Coffey or CMW Geosciences personnel confirmed the full extent of the landfill was excavated.
- Validation samples were also collected from the landfill excavation base. Validation sampling was conducted over several rounds as the landfill base was exposed between December 2025 and February 2026. Validation sample locations are indicated in Appendix A5. Collected validation samples were submitted to Hill Laboratories and analysed for heavy metals and asbestos (semi-quantitative). Landfill validation sample results are summarised in Appendix B4. Laboratory reports are included in Appendix C4.
- Landfill validation samples returned heavy metals results less than SCS for residential land use. One or more analysed heavy metals were detected at concentrations above background in 4 samples.
- Asbestos was not detected above the laboratory limit of detection in the landfill base validation samples.

3.3 Offal Pit (Lots: 345, 346, 354, 355 & 392)

3.3.1 Excavation and stockpiling

Excavation of the offal pit began in late November 2025, following the procedure according to the RAP at the time (Rev 1):

- Remedial works commenced in what was thought to be the northern extent of the Offal pit.
- Material from the offal pit was excavated and removed to a processing area adjacent to the excavation, where the material was sorted into separate material piles (concrete, metal, timber, general refuse and soil). Residual soils were removed from metal and wood prior to their removal from the site.
- Recovered metals were disposed of as scrap metals salvage.
- Wood (tree stumps) was taken by the farmer to be added to his burn piles.

- Refuse, including any recovered machined timber (potentially treated or painted) was disposed of offsite to Kate Valley Landfill.
- Remaining soil was stockpiled (maximum stockpile sizes of ~150m³) adjacent to the Offal Pit for validation sampling and analysis.
- Validation sampling of the stockpiles was conducted with samples collected at an approximate rate / density of 1 sample per 50m³. All collected samples were submitted to Hills Laboratory and analysed for heavy metals and asbestos (presence / absence for stockpile 1 with quantitative analysis from stockpile 2 onwards). Validation sample results are summarised in Appendix B5, laboratory results are presented in Appendix C5.
- Asbestos was detected in sample SP1C-01 only. This stockpile was removed off-site to Kate Valley.
- Soil represented by validation sample results above SCS for commercial / industrial land was removed from site and disposed of at a licenced receival facility.
- Soil represented by validation results that exceed SCS for residential land use, but were less than SCS for commercial / industrial land use was stockpiled on the future commercial area in Stage 3. (The commercial area is further discussed in Section 6).
- Soil represented by validation results < SCS for residential land use was blended with gravel (to improve geotechnical properties) and returned to the *landfill excavation* in compacted layers (post validation sampling of the excavated landfill area, refer Section 3.2.2).
- The offal pit excavation was filled in layers with site won and imported cleanfill. Site won material is further described in Section 5 with the cleanfill being imported pitrun from Road Metals Rolleston quarry.

3.3.2 Offal Pit Validation

- The primary validation method for the offal pit excavation was visual. Inspections undertaken by Tetra Tech Coffey or CMW Geosciences personnel confirmed the full extent of the offal pit was excavated.
- Validation samples were also collected from the offal pit excavation base. Validation sampling was conducted over several rounds as the offal pit base was exposed between November 2025 and February 2026. Validation sample locations are indicated in Appendix A5. Collected validation samples were submitted to Hill Laboratories and analysed for heavy metals and asbestos. Validation sample results are summarised in Appendix B6, laboratory reports are included in Appendix C6.
- All Offal pit validation samples returned results less than SCS for residential land use except sample “S2-Offal Val-05” in which arsenic concentrations exceeded SCS for residential land use. Additional remediation of this area was not carried out given the area was small (~3m x 8m), at >3m below finished level, and beneath a road (i.e. not below residential lots).

4.0 ACCIDENTAL DISCOVERY

4.1 Asbestos Pipeline

Throughout September and October 2025, prior to the start of bulk earthworks, a pipeline constructed of Asbestos Containing Materials (ACM) was removed. The pipes and surrounding soils were removed as Class B removal works by Pro Tranz Ltd. Note that the asbestos pipeline was chased until its full extent which was beyond Stage 2 (Refer Appendix A1). The pipe location / layout and validation sample locations are indicated in Appendix A3. Asbestos sample validation results are summarised in Appendix B2. Laboratory reports are included in Appendix C2. The following works took place:

- A soil scrape was undertaken within the pipe trench post removal. Removed soils were temporarily stockpiled alongside the pipe trench.
- Validation samples were collected from both the excavated trench and from the material stockpiled adjacent to the trench in stages as the pipeline was removed (series 01-12, 101-116, 201-208, 301-324, 401-414). Collected validation samples were analysed for asbestos (presence / absence).
- Where asbestos was detected in the initial 00 – 400 series samples, either within the trench, or within stockpiled soils, a second round of sampling (series 500) was undertaken; from the trench post additional soil removal, or post stockpiled soils removal. Of the 27 samples taken in the 500 series, 2 samples detected asbestos (511 & 512). Asbestos in the form of ACM was visually observed ~5m away from the 511 and 512 sample locations. The ACM observed was hand-picked, and a sample (515) collected (analysis showed asbestos not detected in sample 515).
- Further excavation (within the trench or surface scrape where post stockpile removal samples detected asbestos) was conducted and further validation sampling undertaken (series 600) from the areas which detected asbestos previously (511, 512 & adjacent 515). Validation sampling results did not detect asbestos.
- Approximately 67.38 tonnes of excavated soils and pipes were disposed of offsite to the Pro Tranz disposal facility at Leggat Road. Disposal receipts are included in Appendix D2.

4.1.1 ASB 700 – 12/11/25

On 12 November 2025 a ~1m section of asbestos pipe was discovered within the Road 23 reserve.

- The pipe was wrapped and removed by Pro Tranz, to Leggat Road.
- The area surrounding the pipe was sampled (“S2 – ASB P-701”) and analysed for asbestos (presence / absence).
- Asbestos was not detected in sample S2-ASB P-701).

4.1.2 ASB 800 – 1/12/25

On 1 December 2025 a section of asbestos pipe was discovered in the location of Lot 3014.

- The pipe was wrapped and removed by Pro Tranz, to Leggat Road.
- The area surrounding the pipe was sampled (“S2 – ASB P-801”) and analysed for asbestos (presence / absence).
- Asbestos was not detected in sample S2-ASB P-801.

4.2 Offal Pits

Several additional “rubbish/offal pits” were discovered in the general location of the known offal pit, with largest two listed below:

- Lots 216 & 217.
- Lots 354, 391, 392, 393, 394.

These pits were excavated and remediated as per the methodology laid out in Section 3.3

4.3 Lots and Roads

4.3.1 Lots 253 & 254

On 21 November 2025, a small volume of landfill material was observed and remediated (extent based on visual observation) from within the area of Lots 253 and 254 (~6-7m²). Three samples were collected from within each lot post landfill materials removal (6 samples total) and were analysed for heavy metals. All metals analysed were found to be below background concentrations. The results are summarised in Appendix B7 with the laboratory results included in Appendix C7.

4.3.2 South of Lot 4004

On 1 May 2026, suspected coal tar was observed in a road reserve excavation (south of Lot 4004 – refer to plan in Appendix A6) and remediated. Three samples were collected from the excavated material (approximately 1-2m³ stockpiled on a truck), and one sample from the base of the excavation area (~5m²) and were analysed for heavy metals and Polycyclic Aromatic Hydrocarbons (PAHs).

- All metals in the stockpiled material were below background concentrations.
- PAHs in the stockpiled material were generally not detected at concentrations above the laboratory limit of detection. Where detected, PAHs were present at trace concentrations only, below background concentrations.
- All metals in the in-ground validation sample were below background concentrations.
- PAHs were not detected at a concentration in excess of the laboratory limit of detection in the in-ground validation sample.

Stockpiled material remains on Stage 3 awaiting use in further stages of the wider Earlsbrook Development or removal from site.

5.0 SITE WON FILL

Site won fill has been recovered from across the site and is summarised as follows:

5.1 General site won topsoil

Site won topsoil from areas identified in the DSI as having no HAIL present and therefore assumed to meet background concentrations.

5.2 General site won fill

Site won silts, sands and gravels from areas identified in the DSI as having no HAIL present and therefore assumed to meet background concentrations.

5.3 Landfill Topsoil

Approximately 600m³ of topsoil from above the landfill was excavated and stockpiled. Given its source location, it was decided to sample and analyse this material; the stockpiled soil was sampled on 18 March 2026 with 9 samples collected. Each sample was analysed for heavy metals and asbestos (semi quantitative). The results are summarised in Appendix B7 with laboratory reports included in Appendix C7.

- 7 of the 9 samples returned analysed heavy metals results below background concentrations.
- One or more heavy metals were detected above background concentration in 2 samples.

- All heavy metals were present at concentrations less than SCS for residential land use.
- No asbestos was detected in the samples analysed.

This topsoil material was considered to meet background concentrations overall and was reused in the landfill area.

5.4 Landfill Capping Material

The silts and sands below the topsoil but above the landfill material were stockpiled onsite with sampling carried out in March 2026. 22 samples were taken from three stockpiles totalling ~3000m³ and analysed for heavy metals and asbestos (semi quantitative). The results are summarised in Appendix B7 with laboratory reports included in Appendix C7.

- 19 of the 22 samples returned analysed heavy metals results below background concentrations.
- Three samples returned concentrations above background for zinc and one sample returned a concentration above background for lead.
- No analysed heavy metals were detected at concentrations above SCS for residential land use.
- No asbestos was detected.

This capping material was considered to meet background concentrations overall and was reused in the landfill area.

5.5 Offal Pit Capping Material

The silts and sands but above the offal pit material were stockpiled onsite with sampling carried out on 5 February 2026. 5 samples were taken from the ~250m³ stockpile and analysed for heavy metals and asbestos (semi quantitative). The results are summarised in Appendix B7 with laboratory reports included in Appendix C7.

- All analysed heavy metals were below background concentrations.
- No asbestos was detected.

6.0 SURPLUS MATERIALS STORAGE

Within Lot 5011, Lot 6001 and in the landfill sorting and stockpiling area (LSSA) west of Stage 2, there are multiple types of landfill material:

- Screened and validated soil with residual concentrations less than SCS for residential land use (located on Lot 5011 & LSSA).
- Un-tested scalper/trommel reject material (consisting of predominantly gravel with timber, wood, concrete, metal, plastic and soil) (Located: Lot 5011 & LSSA).
- Asbestos containing soil (Located: LSSA).
- Soil above residential SCS but below Commercial SCS (Located: Commercial area, Lot 6001).

These areas are outside of the current Stage (Stage 2) covered by this SVR and will be addressed by a Stage 3 SVR and a Lot 5011 SVR. In addition, excess topsoil and site won cleanfill remains on Stage 3 for future reuse.

7.0 VALIDATION SAMPLING QUALITY ASSURANCE AND QUALITY CONTROL

All fieldwork (inspections and soil validation sampling) has been managed / overseen by a Suitably Qualified and Experienced Practitioner (SQEP) from Tetra Tech Coffey or CWM Geosciences. This report was reviewed by a SQEP.

Validation samples were collected from the excavation base(s) using a trowel or direct from stockpile surfaces (adequate mixing of stockpiled soils is assumed to have occurred during excavation and screening works). Sampling implements were cleaned between samples.

With regards to laboratory analysis, the only laboratory used was Hill Laboratories Ltd. Hill Laboratories is a recognised laboratory endorsed by International Accreditation New Zealand (IANZ). The analyses undertaken were performed in accordance with the terms of accreditation. No issues that effected the efficacy of the results were noted for the samples analysed.

8.0 SUMMARY

The remedial works conducted at the site can be summarised as follows:

- An asbestos pipeline was removed prior to the start of bulk earthworks. The pipeline trench was validated through visual observation and sampling. Validation sampling indicates asbestos is not present.
- The dwelling and contaminated soil from around 1532 Springs Road (Lots: 245, 246, 255 & 255) have been removed with validation sampling carried out. Validation sampling indicates contamination in excess of SCS for residential land use has been successfully removed. Residual contamination in excess of background remains; however, this is present at a depth of ~1.0m below finished ground level.
- The landfill (Lots: 250-251, 399-407 & 410-418) has been successfully removed. Soil with residual contaminant concentrations less than SCS for residential land use (above background) has been used to backfill the area to a depth of 1.0m below finished ground level, with a 1.0 m clean fill cap above contaminated soils.
- The Offal Pits (Lots: 216, 217, 345, 346, 354, 355, & 391-394) have been successfully remediated. Validation sampling generally indicated residual contaminant concentrations less than SCS for residential land use and background. The area has been backfilled with a combination of site sourced and imported cleanfill.
- No HAIL activities were identified as having occurred over the remainder of the site with no remedial works conducted in these areas.

9.0 CLOSURE

This report has been prepared for use by Earlsbrook West Residential Limited in relation to the Earlsbrook, 1532 Springs Road, Lincoln project in accordance with the scope, proposed uses and limitations described in the report. Should you have further questions relating to the use of your report please do not hesitate to contact us.

Where a party other than Earlsbrook West Residential Limited seeks to rely upon or otherwise use this report, the consent of CMW should be sought prior to any such use. CMW can then advise whether the report and its contents are suitable for the intended use by the other party.

USING YOUR CMW ENVIRONMENTAL REPORT

Environmental reporting relies on interpretation of facts and collected information using experience, professional judgement, and opinion. As such it generally has a level of uncertainty attached to it, which is often far less exact than other engineering design disciplines. The notes below provide general advice on what can be reasonably expected from your report and the inherent limitations of an environmental report.

Preparation of your report

Your environmental report has been written for your use on your project. The contents of your report may not meet the needs of others who may have different objectives or requirements. The report has been prepared using generally accepted Environmental Engineering practices and procedures. The opinions and conclusions reached in your report are made in accordance with these accepted principles. Specific items of environmental importance are highlighted in the report.

In producing your report, we have relied on the information which is referenced or summarised in the report. If further information becomes available or the nature of your project changes, then the findings in this report may no longer be appropriate. In such cases the report must be reviewed, and any necessary changes must be made by us.

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. CMW may have also relied on data and other information provided by you and other qualified individuals in preparing this report. CMW has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

Your environmental report has been written for a specific purpose

Your environmental report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

The information or advice in your environmental report should not be applied to any other project given the intrinsic differences between different projects and site locations. Similarly environmental information, data and conclusions from other sites and projects may not be relevant or appropriate for your project.

Interpretation of environmental data

Environmental site assessments identify actual conditions only at those points where samples are taken and on the date collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. CMW would be pleased to assist with any investigation or advice in such circumstances.

Interpretation and use by other design professionals

Costly problems can occur when other design professionals develop their plans based on misinterpretations of an environmental report. To help avoid misinterpretations, it is important to retain the assistance of CMW to work with other project design professionals who are affected by the contents of your report. CMW staff can explain the report implications to design professionals and then review design plans and specifications to see that they have correctly incorporated the findings of this report. If another party is engaged to interpret the recommendations of the report without consulting CMW, there is a risk that the contents of the report may be misinterpreted and CMW disowns any responsibility for such misinterpretation.

Your report's recommendations require confirmation during construction

Your report is based on site conditions as revealed through selective point sampling. Engineering judgement is then applied to assess how indicative of actual conditions throughout an area the point sampling might be. Any assumptions made cannot be substantiated

until construction is complete. For this reason, you should retain environmental services throughout the construction stage, to identify variances from previous assumption, conduct additional tests if required and recommend solutions to problems encountered on site.

A Environmental Engineer, who is fully familiar with the site and the background information, can assess whether the report's recommendations remain valid and whether changes should be considered as the project develops. An unfamiliar party using this report increases the risk that the report will be misinterpreted.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

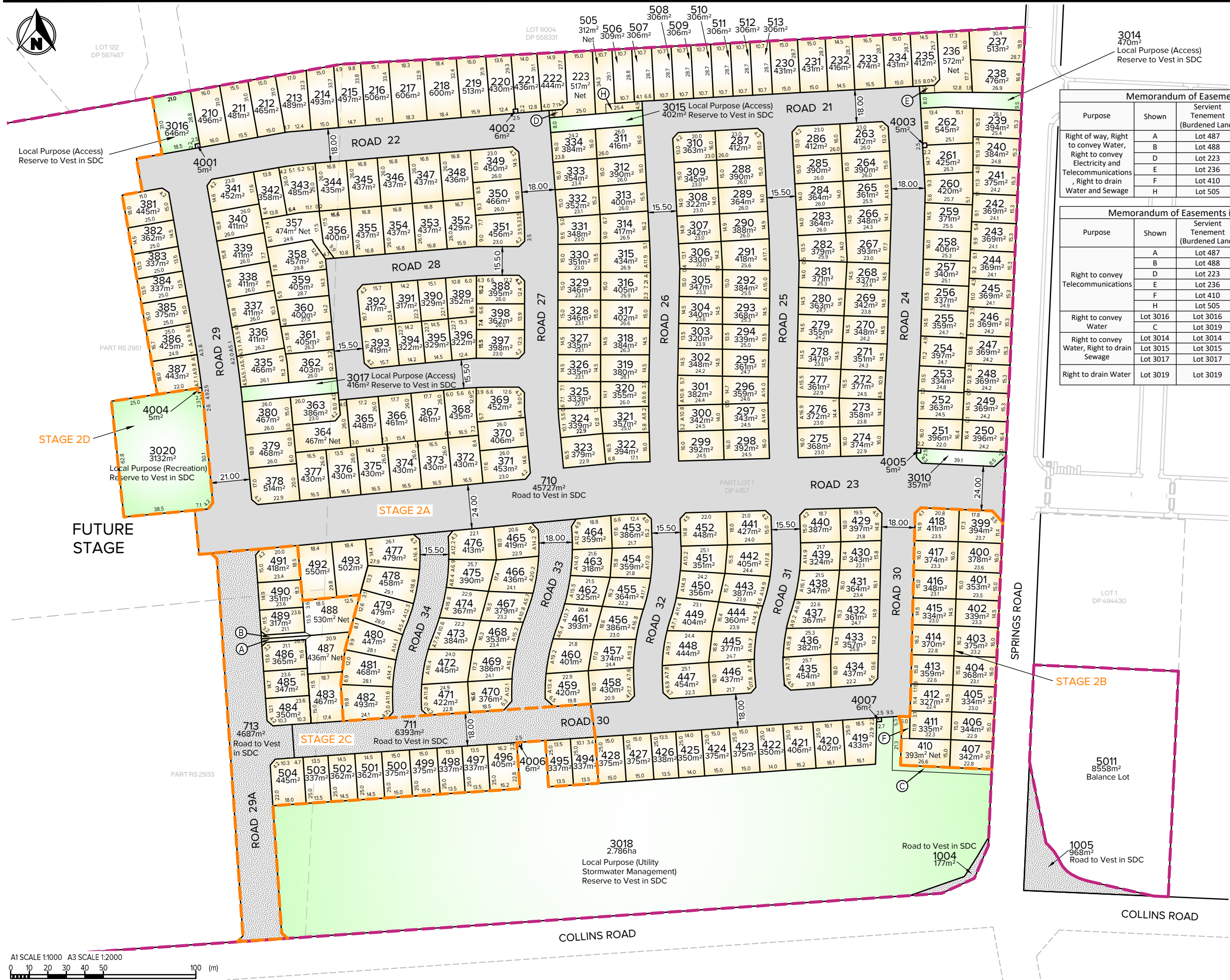
Responsibility

Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.

APPENDIX A

Sample Location Plans

Appendix A1 – Overall Site Plans



NOTES

Legal Description: Part Lot 1 DP 4157, Part RS 2951 & Part RS 2933

Comprised In: RT 1230372, CB32K/521

Application Address: 1532 Springs Road, Lincoln

Registered Owners: Earlsbrook West Residential Limited

Local Authority: Selwyn District Council

Zone: MRZ Partially Operative District Plan

- All dimensions in m unless otherwise specified.
- Areas and dimensions are subject to final survey and deposit of plans.
- Location of existing services are approximate only and the contractor shall be responsible for the location and protection of all services prior to undertaking any excavation.
- Service easements to be created as required.
- Any measurements taken from information which is not dimensioned on the electronic copy are at the risk of the recipient.
- This plan has been prepared for the use of our client only and no liability is accepted in relation to any other parties.
- Any engineering & landscaping shown is indicative only and subject to their final approvals.
- Lots 710-711 & 713 to be vested as roads in Selwyn District Council.
- Lot 3010 to be vested as Local Purpose (Landscape) Reserve in the Selwyn District Council.
- Lots 3014-3017 to be vested as a Local Purpose (Access) Reserve to Selwyn District Council.
- Lot 3018 to be vested as a Local Purpose (Utility Stormwater Management) Reserve to Selwyn District Council.
- Easements for Lots 3014-3017 to be confirmed.
- Lot 3019 to be vested as a Local Purpose (Landscape) Reserve to Selwyn District Council.
- Lot 3020 to be vested as a Local Purpose (Recreation) Reserve to Selwyn District Council.
- Lots 4001-4007 electrical kiosk lots.

Memorandum of Easements

Purpose	Shown	Servient Tenement (Burdened Land)	Dominant Tenement (Benefited Land)
Right of way, Right to convey Water, Right to convey Electricity and Telecommunications, Right to drain Water and Sewage	A	Lot 487	Lots 488-489
	B	Lot 488	Lot 487, Lot 489
	D	Lot 223	Lot 222
	E	Lot 236	Lot 235
F	Lot 410	Lot 411	
H	Lot 505	Lots 506-507	

Memorandum of Easements in Gross

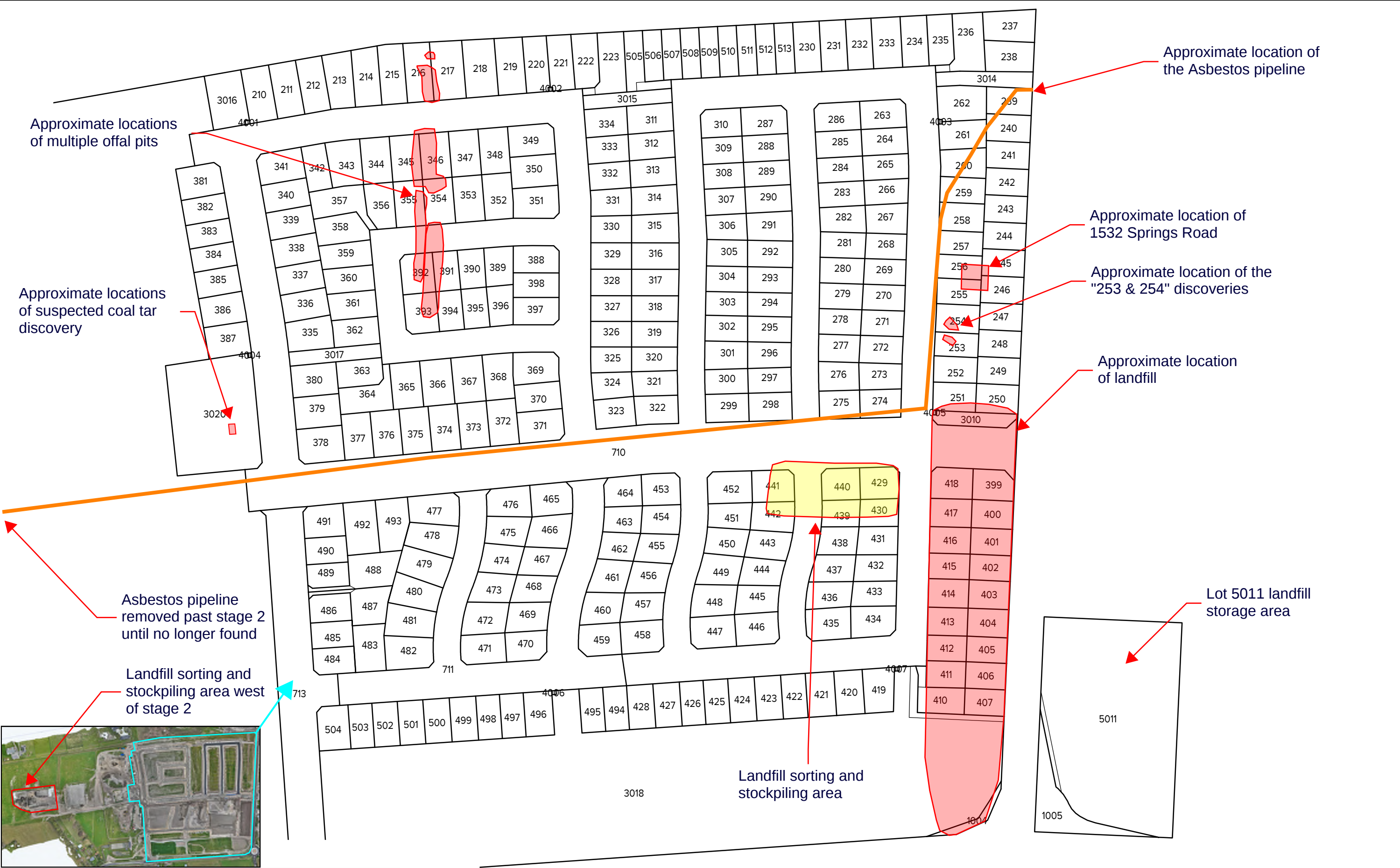
Purpose	Shown	Servient Tenement (Burdened Land)	Grantee
Right to convey Telecommunications	A	Lot 487	Frednet Limited
	B	Lot 488	
	D	Lot 223	
	E	Lot 236	
	F	Lot 410	
Right to convey Water	C	Lot 3019	Selwyn District Council
	C	Lot 3019	Selwyn District Council
Right to convey Water, Right to drain Sewage	Lot 3014	Lot 3014	Selwyn District Council
	Lot 3015	Lot 3015	
Right to drain Water	Lot 3017	Lot 3017	Selwyn District Council
	Lot 3019	Lot 3019	

PARCEL INFORMATION

LOT TYPE	COUNT	TOTAL AREA (m ²)	AVERAGE LOT SIZE (m ²)
RESIDENTIAL SECTIONS	296	117150	396
ROAD	3	56808	
RESERVE	7	33289	
ROAD RESERVE	2	1145	
BALANCE LOTS	2	261270	
KIOSK	7	39	
TOTAL		469700	

LEGEND

- SITE BOUNDARY
- STAGE BOUNDARY
- LOT BOUNDARY
- LEGAL ROAD BOUNDARY
- ABUTTAL BOUNDARY
- EXISTING EASEMENT
- BOUNDARY
- PROPOSED EASEMENT
- BOUNDARY



revision	no.	description			drawn	approved	date		drawn	N. Cash		Earlsbrook West Residential Limited		
	0	Original Issue			N. Cash	N. Cash	18/05/2026		approved	N. Cash		project: Earlsbrook Stage 2		
									date	18/05/2026		title: Overall Location Plan		
									scale	N.T.S		project no: CHC2026-0002		drawing no: 01
									original page size	A3				rev: 0

Appendix A2 – 1532 Springs Road Sample Location Plan

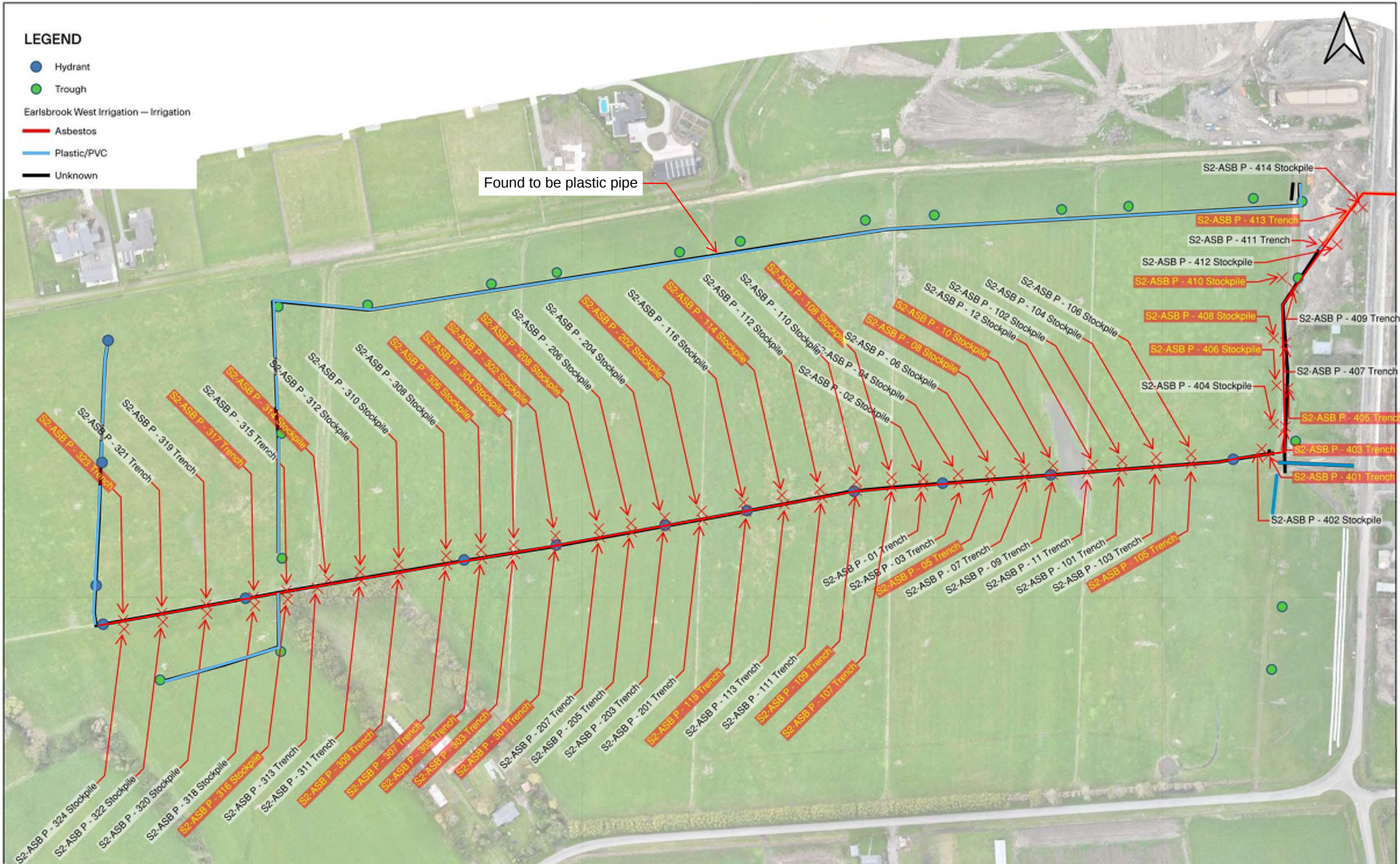


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Appendix A3 – Asbestos Pipeline Sample Location Plans

LEGEND

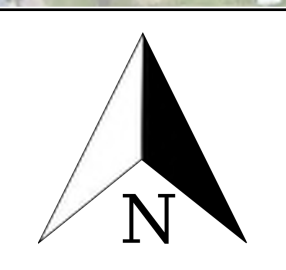
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- Trough
- Earlsbrook West Irrigation — Irrigation
- Asbestos
- Plastic/PVC
- Unknown



revision	no.	description	drawn	approved	date
0	Original Issue		N. Cash	N. Cash	07/05/2026



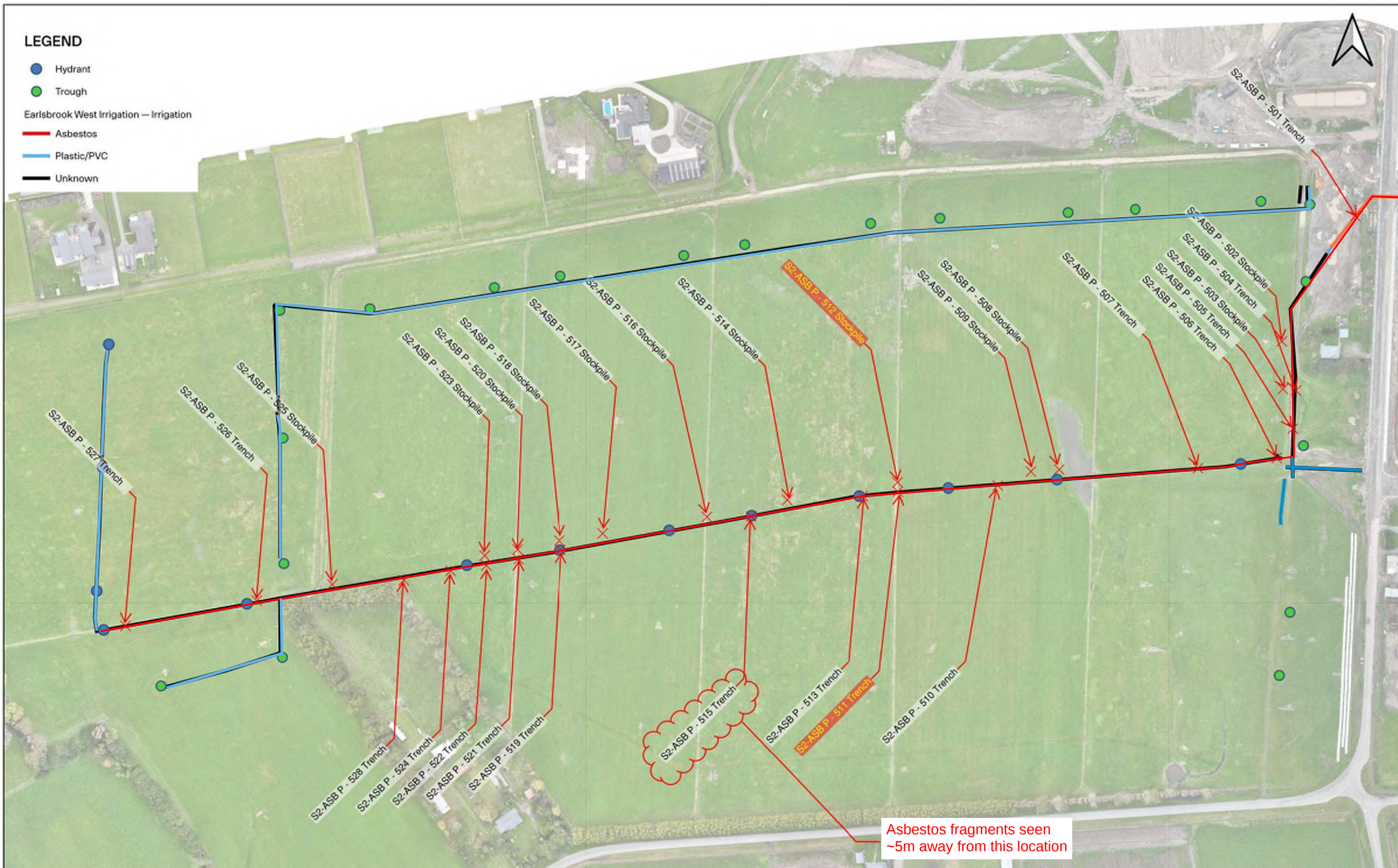
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approved	N. Cash
date	07/05/2026
scale	N.T.S
original page size	A3



client	Earlsbrook West Residential Ltd
project:	Earlsbrook Stage 2
title:	Asbestos Pipe - 00s - 400s Location Plan
project no:	CHC2026-0002
drawing no:	03
rev:	0

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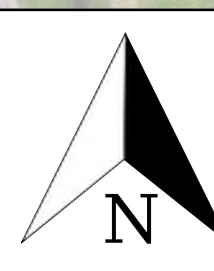
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- Trough
- Earlsbrook West Irrigation — Irrigation
- Asbestos
- Plastic/PVC
- Unknown



revision	no.	description	drawn	approved	date
	0	Original Issue	N. Cash	N.Cash	07/05/2026
revision					



drawn	N. Cash
approved	N. Cash
date	07/05/2026
scale	N.T.S
original page size	A3



client	Earlsbrook West Residential Ltd		
project:	Earlsbrook Stage 2		
title:	Asbestos Pipe - 500s Location Plan		
project no:	CHC2026-0002	drawing no:	04
rev:	0		



✗ S2 - ASB P - 701

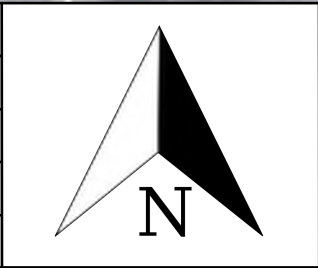
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										date	13/11/2025			title:	Asbestos Pipe - 700s Location Plan		
										scale	N.T.S			project no:	CHC2026-0002	drawing no:	06
										original page size	A3					rev:	1



revision	no.	description	drawn	approved	date
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drawn	N. Cash
approved	N. Cash
date	03/12/2025
scale	N.T.S
original page size	A3



client	Earlsbrook West Residential Ltd		
project:	Earlsbrook Stage 2		
title:	Asbestos Pipe - 800s Location Plan		
project no:	CHC2026-0002	drawing no: 07	rev: 1

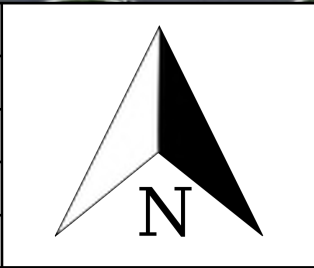
Appendix A4 – Landfill Validation Sample Location Plans



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drawn	N. Cash
approved	N. Cash
date	20/05/2026
scale	N.T.S
original page size	A3



Earlsbrook West Residential Ltd		
project: Earlsbrook Stage 2		
title: Landfill Validation Sample location Plan		
project no: CHC2026-0002	drawing no: 08	rev: 0

Appendix A5 – Offal Pit Validation Sample Location Plans



Stage 2 Offal Pit validation sample locations

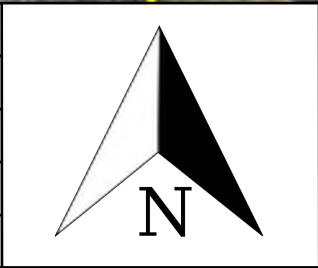
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							approved			project: Earlsbrook Stage 2			
							date			title: Offal Pit Validation Sample Location Plan			
							scale			project no: 773-CHCGE		drawing no: 09	rev: 0
							original page size						



revision	no.	description			drawn	approved	date
	0	Original Issue			N. Cash	Name	26/02/2026



drawn	N. Cash
approved	N. Cash
date	01/09/2025
scale	1:230
original page size	A3



Earlsbrook West Residential		
project: Earlsbrook Stage 2 Offal Pit Validation 100s		
title: Offal Pit Validation Sample Location Plan		
project no: CHC2026-0002	drawing no: 10	rev: 0

Offal Pit Val 300s



revision	no.	description			drawn	approved	date	Tt TETRA TECH COFFEY	drawn		N	client: Earlsbrook West Residential		
									approved			project: Earlsbrook Stage 2		
									date			title: Offal Pit Validation Sample Location Plan		
									scale			project no: 773-CHCGE		drawing no: 11
									original page size			rev: 0		

Offal Pit Val 400s

✗ Val - 401

✗ Val - 402

✗ Val - 403

✗ Val - 404

revision	no.	description			drawn	approved	date



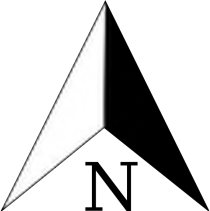
drawn	
approved	
date	
scale	
original page size	



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project: Earlsbrook Stage 2		
title: Offalpit Validation Sample Location Plan		
project no: 773-CHCGE	drawing no: 12	rev: 0

S2-OffalPit Val-



revision	no.	description			drawn	approved	date	 CMW Geosciences			drawn	N. Cash				Earlsbrook West Residential		
	0	Original Issue			N. Cash	Name	27/02/2026				approved	N. Cash				project:		
											date	27/02/2026				Earlsbrook Stage 2		
											scale	1:300				Validation 500s		
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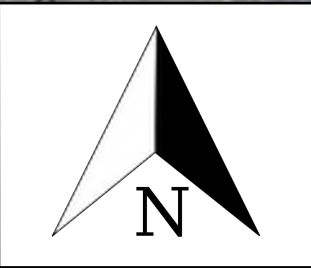
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	0	Original Issue		N. Cash	N. Cash	27/02/2026



drawn	N. Cash
approved	N. Cash
date	27/02/2026
scale	1:200
original page size	A3



Earlsbrook West Residential		
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title: Offal Pit Validation Sample Location Plan		
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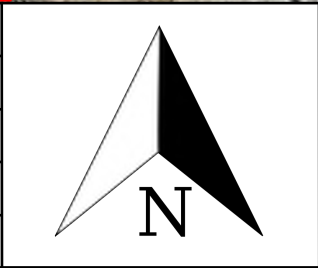
Appendix A6 – Lots and Roads Validations and Silt Stockpiles Sample Location Plans



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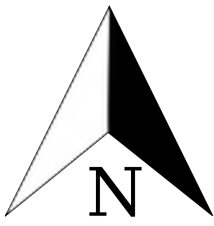


drawn	N. Cash
approved	N. Cash
date	03/03/2026
scale	N.T.S
original page size	A3



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project: Earlsbrook Stage 2		
title: Landfill Cap Stockpile 00 Sample Location Plan		
project no: CHC2026-0002	drawing no: 17	rev: 0



revision	no.	description	drawn	approved	date		drawn	N. Cash		client Earlsbrook West Residential Ltd		
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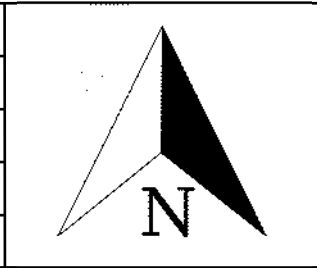
S2 - L.F Topsoil - SP -



revision	no.	description		drawn	approved	date
	0	Original Issue		N. Cash	Name	23/03/2026



drawn	N. Cash
approved	N. Cash
date	23/03/2026
scale	N.T.S
original page size	A3



Earlsbrook West Residential Ltd		
project: Earlsbrook West Residential Subdivision		
title: TEST LOCATION PLAN		
project no: CHC2026-0002	drawing no: 20	rev: 1

APPENDIX B

Results Summary Tabels

Appendix B1 – 1532 Springs Road Summary Table



Laboratory Results Table 1: Summary of Soil Analytical Results - 1532 Springs Road Validation

Discrete Sample Identification	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - 1532 H Val - 01	S2 - 1532 H Val - 02	S2 - 1532 H Val - 03	S2 - 1532 H Val - 04	S2 - 1532 H Val - 05
Heavy metals							
Arsenic	20	12.58	3	4	3	6	7
Cadmium	3	0.19	< 0.1	0.25	0.18	0.27	0.33
Chromium	>10,000	22.70	12	10	12	12	14
Copper	>10,000	20.30	7	8	10	12	18
Lead	210	40.96	42	75	55	86	134
Nickel	400 ³	20.70	9	8	8	9	9
Zinc	7400 ³	93.94	109	168	172	161	165

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

- 1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
- 2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
- 3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
- 4. ECan adopted background value for Total DDT.

Appendix B2 – Asbestos Pipeline Summary Tables



Laboratory Results Table 2: Summary of Soil Analytical Results - Asbestos Pipe removal

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 01 Trench	S2-ASB P 02 Stockpile	S2-ASB P 03 Trench	S2-ASB P 04 Stockpile	S2-ASB P 05 Trench	S2-ASB P 06 Stockpile	S2-ASB P 07 Trench	S2-ASB P 08 Stockpile	S2-ASB P 09 Trench	S2-ASB P 10 Stockpile	S2-ASB P 11 Trench	S2-ASB P 12 Stockpile
				00s											
Asbestos															
Present / Absent		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Present	Not Detected	Not Detected	Present	Not Detected	Present	Not Detected	Not Detected
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P - 101 Trench	S2-ASB P - 102 Stockpile	S2-ASB P - 103 Trench	S2-ASB P - 104 Stockpile	S2-ASB P - 105 Trench	S2-ASB P - 106 Stockpile	S2-ASB P - 107 Trench	S2-ASB P - 108 Stockpile	S2-ASB P - 109 Trench	S2-ASB P - 110 Stockpile	S2-ASB P - 111 Trench	S2-ASB P - 112 Stockpile
				100s											
Asbestos															
Present / Absent		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Present	Not Detected	Present	Present	Present	Not Detected	Not Detected	Not Detected
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P - 113 Trench	S2-ASB P - 114 Stockpile	S2-ASB P - 115 Trench	S2-ASB P - 116 Stockpile	S2-ASB P - 201 Trench	S2-ASB P - 202 Stockpile	S2-ASB P - 203 Trench	S2-ASB P - 204 Stockpile	S2-ASB P - 205 Trench	S2-ASB P - 20 Stockpile	S2-ASB P - 207 Trench	S2-ASB P - 208 Stockpile
				100s				200s							
Asbestos															
Present / Absent		0.001 ⁵	-	Not Detected	Present	Present	Not Detected	Not Detected	Present	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Present

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 3: Summary of Soil Analytical Results - Asbestos Pipe removal

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 301 Trench	S2-ASB P 302 Stockpile	S2-ASB P 303 Trench	S2-ASB P 304 Stockpile	S2-ASB P 305 Trench	S2-ASB P 306 Stockpile	S2-ASB P 307 Trench	S2-ASB P 308 Stockpile	S2-ASB P 309 Trench	S2-ASB P 310 Stockpile	S2-ASB P 311 Trench	S2-ASB P 312 Stockpile
				300s											
Asbestos															
Present / Absent		0.001 ⁵	-	Present	Present	Present	Present	Present	Present	Present	Not Detected	Present	Not Detected	Not Detected	Not Detected
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 313 Trench	S2-ASB P 314 Stockpile	S2-ASB P 315 Trench	S2-ASB P 316 Stockpile	S2-ASB P 317 Trench	S2-ASB P 318 Stockpile	S2-ASB P 319 Trench	S2-ASB P 320 Stockpile	S2-ASB P 321 Trench	S2-ASB P 322 Stockpile	S2-ASB P 323 Trench	S2-ASB P 324 Stockpile
				300s											
Asbestos															
Present / Absent		0.001 ⁵	-	Not Detected	Present	Not Detected	Present	Present	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Present	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.

 CMW Geosciences Great People Practical Solutions Laboratory Results Table 4: Summary of Soil Analytical Results - Asbestos Pipe removal											
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 401 Trench	S2-ASB P 402 Stockpile	S2-ASB P 403 Trench	S2-ASB P 404 Stockpile	S2-ASB P 405 Trench	S2-ASB P 406 Stockpile	S2-ASB P 407 Trench	
				400s							
Asbestos											
Present / Absent		0.001 ⁵	-	Present	Not Detected	Present	Not Detected	Present	Present	Not Detected	
Asbestos											
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 408 Stockpile	S2-ASB P4 09 Trench	S2-ASB P 410 Stockpile	S2-ASB P 411 Trench	S2-ASB P 412 Stockpile	S2-ASB P -413 Trench	S2-ASB P - 414 Stockpile	
				400s							
Asbestos											
Present / Absent		0.001 ⁵	-	Present	Not Detected	Present	Not Detected	Not Detected	Present	Not Detected	

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 5: Summary of Soil Analytical Results - Asbestos Pipe removal

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 501 Trench	S2-ASB P 502 Stockpile	S2-ASB P 503 Stockpile	S2-ASB P 504 Trench	S2-ASB P 505 Trench	S2-ASB P 506 Trench	S2-ASB P 507 Trench	S2-ASB P 508 Stockpile	S2-ASB P 509 Stockpile	S2-ASB P 510 Trench	S2-ASB P 511 Trench	S2-ASB P 512 Stockpile
				500s											
Asbestos															
Present / Absent		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Present	Present
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 513 Trench	S2-ASB P 514 Stockpile	S2-ASB P 515 Trench	S2-ASB P 516 Stockpile	S2-ASB P 517 Stockpile	S2-ASB P 518 Stockpile	S2-ASB P 519 Trench	S2-ASB P 520 Stockpile	S2-ASB P 521 Trench	S2-ASB P 522 Trench	S2-ASB P 523 Stockpile	S2-ASB P 524 Trench
				500s											
Asbestos															
Present / Absent		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-ASB P 525 Stockpile	S2-ASB P 526 Trench	S2-ASB P 527 Trench	S2-ASB P 528 Trench	S2-ASB P 601 Trench	S2-ASB P 602 Stockpile	S2-ASB P 603 Stockpile	S2-ASB P 701	S2-ASB P 801			
				500s				600s							
Asbestos															
Present / Absent		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected			

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.

Appendix B3 – Landfill Stockpile Summary Tables

Laboratory Results Table 6: Summary of Soil Analytical Results - Landfill Stockpile 0

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP00 - 01	S2 - Landfill SP00 - 02	S2 - Landfill SP00 - 03	S2 - Landfill SP00 - 04
				Stockpile 0			
Heavy metals							
Arsenic	70	20	12.58	18	19	10	11
Cadmium	1,300	3	0.19	0.67	0.77	1.59	0.39
Chromium	6,300	>10,000	22.70	26	24	25	22
Copper	>10,000	>10,000	20.30	53	58	74	43
Lead	3,300	210	40.96	96	310	180	90
Nickel	6,000	400 ³	20.70	13	23	27	11
Zinc	400,000	7400 ³	93.94	460	970	980	240
Asbestos							
Concentration (%wt/wt)		0.001 ⁵	-	-	-	-	-

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.

 CMW Geosciences Great People Practical Solutions Laboratory Results Table 7: Summary of Soil Analytical Results - Landfill Stockpile 1																					
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP1A - 01	S2 - Landfill SP1A - 02	S2 - Landfill SP1A - 03	S2 - Landfill SP1B - 01	S2 - Landfill SP1B - 02	S2 - Landfill SP1B - 03	S2 - Landfill SP1C - 01	S2 - Landfill SP1C - 02	S2 - Landfill SP1C - 03	S2 - Landfill SP1D - 01	S2 - Landfill SP1D - 02	S2 - Landfill SP1D - 03	S2 - Landfill SP1E - 01	S2 - Landfill SP1E - 02	S2 - Landfill SP1E - 03	S2 - Landfill SP1F - 01	S2 - Landfill SP1F - 02	S2 - Landfill SP1F - 03
				Stockpile 1 A			Stockpile 1 B			Stockpile 1 C			Stockpile 1 D			Stockpile 1 E			Stockpile 1 F		
Heavy metals																					
Arsenic	70	20	12.58	14	20	23	19	16	14	13	12	14	11	12	19	15	17	18	8	14	8
Cadmium	1,300	3	0.19	1.45	0.95	1.27	0.52	0.55	0.51	0.47	0.57	0.6	0.77	0.75	0.94	0.5	0.42	0.43	0.31	0.41	0.29
Chromium	6,300	>10,000	22.70	20	23	22	32	20	21	18	22	21	20	21	23	28	34	34	19	27	19
Copper	>10,000	>10,000	20.30	65	72	68	72	39	35	33	44	48	44	69	49	46	44	41	25	46	24
Lead	3,300	210	40.96	220	510	1080	122	96	124	127	114	103	119	138	146	78	105	78	72	97	129
Nickel	6,000	400 ³	20.70	14	15	17	12	14	12	12	13	19	15	14	16	12	11	11	10	11	10
Zinc	400,000	7400 ³	93.94	830	830	830	490	460	470	480	470	460	570	480	640	320	290	310	260	290	220
Asbestos																					
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Present	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.



Laboratory Results Table 8: Summary of Soil Analytical Results - Landfill Stockpile 2

Discrete Sample Identification		Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP2A - 01	S2 - Landfill SP2A - 02	S2 - Landfill SP2A - 03	S2 - Landfill SP2B - 01	S2 - Landfill SP2B - 02	S2 - Landfill SP2B - 03	S2 - Landfill SP2C - 01	S2 - Landfill SP2C - 02	S2 - Landfill SP2C - 03	S2 - Landfill SP2D - 01	S2 - Landfill SP2D - 02	S2 - Landfill SP2D - 03	S2 - Landfill SP2E - 01	S2 - Landfill SP2E - 02	S2 - Landfill SP2E - 03	S2 - Landfill SP2F - 01	S2 - Landfill SP2F - 02	S2 - Landfill SP2F - 03
					Stockpile 2 A			Stockpile 2 B			Stockpile 2 C			Stockpile 2 D			Stockpile 2 E			Stockpile 2 F		
Heavy metals																						
Arsenic		70	20	12.58	6	5	7	4	7	5	6	6	8	5	4	6	5	6	6	6	6	8
Cadmium		1,300	3	0.19	0.12	0.11	0.13	0.12	0.14	0.14	0.12	0.13	0.16	0.12	0.13	0.11	0.13	0.14	0.12	0.12	0.13	0.13
Chromium		6,300	>10,000	22.70	14	13	15	14	14	14	14	15	15	14	13	14	14	14	15	14	14	14
Copper		>10,000	>10,000	20.30	10	9	11	9	10	10	10	10	11	10	9	10	12	10	10	10	10	11
Lead		3,300	210	40.96	19.4	18.1	19.7	21	19.3	22	18.5	19.1	18.6	19.8	22	20	25	19	22	18.2	19	19.3
Nickel		6,000	400 ³	20.70	10	10	11	10	9	11	10	11	10	11	9	10	10	10	10	10	10	10
Zinc		400,000	7400 ³	93.94	161	109	175	111	210	119	155	166	182	133	119	130	136	161	136	133	230	179
Asbestos																						
Concentration (%wt/wt)			0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 9: Summary of Soil Analytical Results - Landfill Stockpile 4

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP4A - 01	S2 - Landfill SP4A - 02	S2 - Landfill SP4A - 03	S2 - Landfill SP4B - 01	S2 - Landfill SP4B - 02	S2 - Landfill SP4B - 03	S2 - Landfill SP4C - 01	S2 - Landfill SP4C - 02	S2 - Landfill SP4C - 03	S2 - Landfill SP4D - 01	S2 - Landfill SP4D - 02	S2 - Landfill SP4D - 03
				Stockpile 4 A			Stockpile 4 B			Stockpile 4 C			Stockpile 4 D		
Heavy metals															
Arsenic	70	20	12.58	13	12	9	10	10	10	10	9	8	12	11	10
Cadmium	1,300	3	0.19	0.43	0.55	0.31	0.36	0.37	0.37	0.29	0.32	0.43	0.56	0.3	0.31
Chromium	6,300	>10,000	22.70	19	21	18	19	18	19	18	17	17	18	18	18
Copper	>10,000	>10,000	20.30	31	39	28	27	27	29	23	27	27	35	26	27
Lead	3,300	210	40.96	102	125	67	76	70	70	64	63	67	103	62	121
Nickel	6,000	400 ³	20.70	13	13	11	13	12	12	12	12	11	21	11	11
Zinc	400,000	7400 ³	93.94	370	430	260	770	290	310	280	270	270	500	270	260
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				92			91			93			92		
Organics percentage				8%			9%			7%			8%		
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP4E - 01	S2 - Landfill SP4E - 02	S2 - Landfill SP4E - 03	S2 - Landfill SP4CF - 01	S2 - Landfill SP4CF - 02	S2 - Landfill SP4CF - 03	S2 - Landfill SP4G - 01	S2 - Landfill SP4G - 02	S2 - Landfill SP4G - 03	S2 - Landfill SP4H - 01	S2 - Landfill SP4H - 02	S2 - Landfill SP4H - 03
				Stockpile 4 E			Stockpile 4 F			Stockpile 4 G			Stockpile 4 H		
Heavy metals															
Arsenic	70	20	12.58	9	9	9	9	8	9	8	9	8	8	8	7
Cadmium	1,300	3	0.19	0.3	0.23	0.49	0.33	0.22	0.32	0.17	0.32	0.17	0.32	0.25	0.2
Chromium	6,300	>10,000	22.70	16	16	16	18	18	18	15	16	15	16	17	15
Copper	>10,000	>10,000	20.30	22	30	34	28	20	29	18	26	19	23	22	16
Lead	3,300	210	40.96	53	54	61	67	43	65	41	310	36	64	66	37
Nickel	6,000	400 ³	20.70	11	11	11	12	11	11	11	11	10	11	12	11
Zinc	400,000	7400 ³	93.94	250	240	330	310	200	290	199	270	179	240	240	250
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				93			92			92			93		
Organics percentage				7%			8%			8%			7%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 10: Summary of Soil Analytical Results - Landfill Stockpile 5

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP5A - 01	S2 - Landfill SP5A - 02	S2 - Landfill SP5A - 03	S2 - Landfill SP5B - 01	S2 - Landfill SP5B - 02	S2 - Landfill SP5B - 03	S2 - Landfill SP5C - 01	S2 - Landfill SP5C - 02	S2 - Landfill SP5C - 03	S2 - Landfill SP5D - 01	S2 - Landfill SP5D - 02	S2 - Landfill SP5D - 03
				Stockpile 5 A			Stockpile 5 B			Stockpile 5 C			Stockpile 5 D		
Heavy metals															
Arsenic	70	20	12.58	7	8	8	8	8	8	9	8	11	8	8	9
Cadmium	1,300	3	0.19	0.2	0.27	0.21	0.2	0.22	0.2	0.2	0.2	0.21	0.2	0.23	0.27
Chromium	6,300	>10,000	22.70	17	18	18	17	17	16	17	16	20	16	16	16
Copper	>10,000	>10,000	20.30	16	22	20	23	24	23	21	23	30	33	31	26
Lead	3,300	210	40.96	46	57	43	55	44	52	53	62	53	56	62	49
Nickel	6,000	400 ³	20.70	11	13	11	11	11	11	11	11	11	11	10	10
Zinc	400,000	7400 ³	93.94	171	250	199	210	230	210	210	260	280	220	250	230
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				93			92			93			93		
Organics percentage				7%			8%			7%			7%		
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP5E - 01	S2 - Landfill SP5E - 02	S2 - Landfill SP5E - 03	S2 - Landfill SP5F - 01	S2 - Landfill SP5F - 02	S2 - Landfill SP5F - 03	S2 - Landfill SP5F - 01	S2 - Landfill SP5F - 02	S2 - Landfill SP5F - 03	S2 - Landfill SP5F - 01	S2 - Landfill SP5F - 02	S2 - Landfill SP5F - 03
				Stockpile 5 E			Stockpile 5 F 04 Feb			Stockpile 5 F 19 Feb			Stockpile 5 G		
Heavy metals															
Arsenic	70	20	12.58	9	10	10	8	12	8	9	9	8	8	8	9
Cadmium	1,300	3	0.19	0.25	0.44	0.27	0.22	0.49	0.2	0.22	0.35	0.2	0.2	0.2	0.25
Chromium	6,300	>10,000	22.70	16	19	16	17	19	16	17	17	16	15	18	17
Copper	>10,000	>10,000	20.30	21	31	50	25	35	21	25	33	25	33	26	36
Lead	3,300	210	40.96	53	82	64	63	108	53	53	79	55	70	52	55
Nickel	6,000	400 ³	20.70	11	12	10	11	13	10	11	12	11	10	11	11
Zinc	400,000	7400 ³	93.94	250	380	260	230	380	200	240	300	240	240	220	270
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				92			93			93			93		
Organics percentage				8%			7%			7%			7%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.

CMW Geosciences Great People Practical Solutions Laboratory Results Table 11: Summary of Soil Analytical Results - Landfill Stockpile 6																						
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP6A - 01	S2 - Landfill SP6A - 02	S2 - Landfill SP6A - 03	S2 - Landfill SP6B - 01	S2 - Landfill SP6B - 02	S2 - Landfill SP6B - 03	S2 - Landfill SP6C - 01	S2 - Landfill SP6C - 02	S2 - Landfill SP6C - 03	S2 - Landfill SP6D - 01	S2 - Landfill SP6D - 02	S2 - Landfill SP6D - 03	S2 - Landfill SP6E - 01	S2 - Landfill SP6E - 02	S2 - Landfill SP6E - 03	S2 - Landfill SP6F - 01	S2 - Landfill SP6F - 02	S2 - Landfill SP6F - 03	
				Stockpile 6 A			Stockpile 6 B			Stockpile 6 C			Stockpile 6 D			Stockpile 6 E			Stockpile 6 F			
Heavy metals																						
Arsenic	70	20	12.58	15	12	8	11	8	8	13	9	7	11	12	8	8	9	8	7	9	9	
Cadmium	1,300	3	0.19	0.27	0.6	0.21	0.32	0.22	0.2	0.39	0.27	0.15	0.34	2.1	0.23	0.26	0.24	0.28	0.2	0.24	0.3	
Chromium	6,300	>10,000	22.70	19	24	17	28	17	18	24	25	16	22	20	16	20	18	17	38	17	16	
Copper	>10,000	>10,000	20.30	24	36	22	23	27	27	32	37	16	27	29	21	22	25	21	19	24	23	
Lead	3,300	210	40.96	35	86	44	61	104	47	71	72	31	64	72	48	39	52	44	200	45	53	
Nickel	6,000	400 ³	20.70	11	13	12	14	11	11	12	13	11	12	14	11	12	11	11	20	12	12	
Zinc	400,000	7400 ³	93.94	250	390	230	240	320	210	350	320	176	280	310	230	186	300	210	186	310	250	
Asbestos																						
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.00211	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)																						
Ash (g/100g Dry wt)				94			93			92			93			93			93			
Organics percentage				6%			7%			8%			7%			7%			7%			
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP6G - 01	S2 - Landfill SP6G - 02	S2 - Landfill SP6G - 03	S2 - Landfill SP6H - 01	S2 - Landfill SP6H - 02	S2 - Landfill SP6H - 03	S2 - Landfill SP6I - 01	S2 - Landfill SP6I - 02	S2 - Landfill SP6I - 03	S2 - Landfill SP6J - 01	S2 - Landfill SP6J - 02	S2 - Landfill SP6J - 03	S2 - Landfill SP6K - 01	S2 - Landfill SP6K - 02	S2 - Landfill SP6K - 03				
				Stockpile 6 G			Stockpile 6 H			Stockpile 6 I			Stockpile 6 J			Stockpile 6 K						
Heavy metals																						
Arsenic	70	20	12.58	8	9	8	7	9	8	9	8	7	7	8	7	8	10	8				
Cadmium	1,300	3	0.19	0.23	0.2	0.24	0.14	0.28	0.23	0.14	0.16	0.22	0.13	0.29	0.22	0.16	0.35	0.35				
Chromium	6,300	>10,000	22.70	18	18	18	16	20	17	18	16	15	17	17	16	16	22	19				
Copper	>10,000	>10,000	20.30	20	23	21	14	22	24	15	18	24	13	24	21	22	173	45				
Lead	3,300	210	40.96	40	38	57	38	53	49	40	32	43	29	59	47	66	82	73				
Nickel	6,000	400 ³	20.70	11	11	11	11	12	11	12	11	10	11	11	10	10	11	11				
Zinc	400,000	7400 ³	93.94	210	220	230	157	230	220	155	890	220	137	420	210	166	270	230				
Asbestos																						
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected				
Loss On Ignition (organic content)																						
Ash (g/100g Dry wt)				93			93			93			93			93			100%			
Organics percentage				7%			7%			7%			7%			7%			100%			

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.



Laboratory Results Table 12: Summary of Soil Analytical Results - Landfill Stockpile 7

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP7A - 01	S2 - Landfill SP7A - 02	S2 - Landfill SP7A - 03	S2 - Landfill SP7B - 01	S2 - Landfill SP7B - 02	S2 - Landfill SP7B - 03	S2 - Landfill SP7C - 01	S2 - Landfill SP7C - 02	S2 - Landfill SP7C - 03	S2 - Landfill SP7D - 01	S2 - Landfill SP7D - 02	S2 - Landfill SP7D - 03	S2 - Landfill SP7E - 01	S2 - Landfill SP7E - 02	S2 - Landfill SP7E - 03
				Stockpile 7 A			Stockpile 7 B			Stockpile 7 C			Stockpile 7 D			Stockpile 7 E		
Heavy metals																		
Arsenic	70	20	12.58	17	10	10	14	9	15	12	12	13	10	8	11	9	8	7
Cadmium	1,300	3	0.19	0.29	0.38	0.45	0.63	0.3	0.45	0.61	0.49	0.66	0.33	0.21	0.47	0.22	0.22	0.16
Chromium	6,300	>10,000	22.70	25	20	22	27	19	25	23	24	22	22	16	33	16	19	16
Copper	>10,000	>10,000	20.30	41	27	29	46	30	33	37	47	36	35	28	36	32	24	18
Lead	3,300	210	40.96	67	72	70	220	68	99	230	90	91	64	65	96	68	78	34
Nickel	6,000	400 ³	20.70	14	12	12	14	11	14	13	15	13	11	11	18	11	12	11
Zinc	400,000	7400 ³	93.94	260	280	270	400	250	320	750	360	370	330	230	370	230	210	172
Asbestos																		
Concentration (%wt/wt)		0.001 ⁵	-	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected
Loss On Ignition (organic content)																		
Ash (g/100g Dry wt)				93			92			93			93			91		
Organics percentage				7%			8%			7%			7%			9%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

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1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.



Laboratory Results Table 13: Summary of Soil Analytical Results - Landfill Stockpile 8

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP8A - 01	S2 - Landfill SP8A - 02	S2 - Landfill SP8A - 03	S2 - Landfill SP8B - 01	S2 - Landfill SP8B - 02	S2 - Landfill SP8B - 03	S2 - Landfill SP8C - 01	S2 - Landfill SP8C - 02	S2 - Landfill SP8C - 03	S2 - Landfill SP8D - 01	S2 - Landfill SP8D - 02	S2 - Landfill SP8D - 03
				Stockpile 8 A			Stockpile 8 B			Stockpile 8 C			Stockpile 8 D		
Heavy metals															
Arsenic	70	20	12.58	28	12	10	12	12	11	14	10	10	8	7	9
Cadmium	1,300	3	0.19	0.32	0.31	0.31	0.26	0.5	0.39	0.29	0.23	0.38	0.32	0.26	0.29
Chromium	6,300	>10,000	22.70	20	18	18	18	19	20	19	19	18	16	15	16
Copper	>10,000	>10,000	20.30	39	31	53	28	30	33	35	26	28	19	19	23
Lead	3,300	210	40.96	76	115	56	58	75	65	310	80	63	51	46	57
Nickel	6,000	400 ³	20.70	12	12	12	13	12	12	12	11	12	10	10	13
Zinc	400,000	7400 ³	93.94	280	290	280	240	410	290	280	220	250	260	200	230
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				93			92			93			94		
Organics percentage				7%			8%			7%			6%		
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP8E - 01	S2 - Landfill SP8E - 02	S2 - Landfill SP8E - 03	S2 - Landfill SP8F - 01	S2 - Landfill SP8F - 02	S2 - Landfill SP8F - 03	S2 - Landfill SP8G - 01	S2 - Landfill SP8G - 02	S2 - Landfill SP8G - 03	S2 - Landfill SP68H- 01	S2 - Landfill SP68H- 02	S2 - Landfill SP68H- 03
				Stockpile 8 E			Stockpile 8 F			Stockpile 8 G			Stockpile 8 H		
Heavy metals															
Arsenic	70	20	12.58	11	10	11	11	12	8	8	8	8	9	11	9
Cadmium	1,300	3	0.19	0.31	0.52	0.42	0.52	0.45	0.69	0.61	0.36	0.39	0.35	1.19	0.39
Chromium	6,300	>10,000	22.70	18	20	21	21	22	18	17	17	18	18	20	18
Copper	>10,000	>10,000	20.30	27	33	31	38	43	35	27	27	26	26	28	25
Lead	3,300	210	40.96	63	114	84	78	85	93	360	84	91	77	116	79
Nickel	6,000	400 ³	20.70	12	13	13	13	14	13	12	12	12	12	13	12
Zinc	400,000	7400 ³	93.94	240	380	340	380	390	350	310	280	330	330	840	280
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				93			94			93			93		
Organics percentage				7%			6%			7%			7%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 14: Summary of Soil Analytical Results - Landfill Stockpile 9

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP9A - 01	S2 - Landfill SP9A - 02	S2 - Landfill SP9A - 03	S2 - Landfill SP9B - 01	S2 - Landfill SP9B - 02	S2 - Landfill SP9B - 03	S2 - Landfill SP9C - 01	S2 - Landfill SP9C - 02	S2 - Landfill SP9C - 03	S2 - Landfill SP9D - 01	S2 - Landfill SP9D - 02	S2 - Landfill SP9D - 03
				Stockpile 9 A			Stockpile 9 B			Stockpile 9 C			Stockpile 9 D		
Heavy metals															
Arsenic	70	20	12.58	7	8	7	8	7	8	8	8	9	8	9	10
Cadmium	1,300	3	0.19	0.26	0.28	0.35	0.29	0.27	0.3	0.3	0.28	0.32	0.28	0.34	0.37
Chromium	6,300	>10,000	22.70	16	17	17	16	16	16	16	15	20	17	17	20
Copper	>10,000	>10,000	20.30	22	26	23	22	21	25	22	20	28	26	22	34
Lead	3,300	210	40.96	64	60	57	58	54	61	61	85	66	62	88	120
Nickel	6,000	400 ³	20.70	11	12	11	11	10	11	11	10	13	11	11	11
Zinc	400,000	7400 ³	93.94	230	270	300	270	240	260	280	240	270	250	290	290
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				93			93			93			93		
Organics percentage				7%			7%			7%			7%		
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP9E - 01	S2 - Landfill SP9E - 02	S2 - Landfill SP9E - 03	S2 - Landfill SP9F - 01	S2 - Landfill SP9F - 02	S2 - Landfill SP9F - 03	S2 - Landfill SP9G - 01	S2 - Landfill SP9G - 02	S2 - Landfill SP9G - 03	S2 - Landfill SP9H- 01	S2 - Landfill SP9H- 02	S2 - Landfill SP9H- 03
				Stockpile 9 E			Stockpile 9 F			Stockpile 9 G			Stockpile 9 H		
Heavy metals															
Arsenic	70	20	12.58	9	10	10	11	15	11	10	10	12	9	9	8
Cadmium	1,300	3	0.19	0.35	0.42	0.36	0.43	0.57	0.36	0.34	0.31	0.37	0.35	0.31	0.29
Chromium	6,300	>10,000	22.70	18	19	19	22	25	20	20	18	20	19	19	18
Copper	>10,000	>10,000	20.30	51	28	33	28	34	27	49	26	28	24	26	25
Lead	3,300	210	40.96	77	70	68	77	103	187	95	59	77	69	350	93
Nickel	6,000	400 ³	20.70	11	12	12	12	14	12	14	12	12	12	11	11
Zinc	400,000	7400 ³	93.94	290	320	280	1120	530	380	330	250	290	230	310	260
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				92			93			92			93		
Organics percentage				8%			7%			8%			7%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 15: Summary of Soil Analytical Results - Landfill Stockpile 10

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP10 - 01	S2 - Landfill SP10 - 02	S2 - Landfill SP10 - 03	S2 - Landfill SP10 - 04	S2 - Landfill SP10 - 05	S2 - Landfill SP10 - 06
				Stockpile 10					
Heavy metals									
Arsenic	70	20	12.58	7	8	8	10	14	9
Cadmium	1,300	3	0.19	0.17	0.13	0.16	0.35	0.49	0.34
Chromium	6,300	>10,000	22.70	16	18	17	20	25	19
Copper	>10,000	>10,000	20.30	13	19	16	27	29	27
Lead	3,300	210	40.96	29	36	36	72	80	53
Nickel	400	6000 ³	20.70	11	11	11	11	13	12
Zinc	400,000	7400 ³	93.94	170	176	182	280	350	260
Asbestos									
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)									
Ash (g/100g Dry wt)				93	93	93	93	92	92
Organics percentage				7%	7%	7%	7%	8%	8%

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 16: Summary of Soil Analytical Results - Landfill Stockpile 11

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP11A-01	S2 - Landfill SP11A-02	S2 - Landfill SP11B-01	S2 - Landfill SP11B-02	S2 - Landfill SP11C-01	S2 - Landfill SP11C-02	S2 - Landfill SP11D-01	S2 - Landfill SP11D-02	S2 - Landfill SP11E-01	S2 - Landfill SP11E-02	S2 - Landfill SP11F-01	S2 - Landfill SP11F-02	S2 - Landfill SP11G-01	S2 - Landfill SP11G-02
				Stockpile 11 A		Stockpile 11 B		Stockpile 11 C		Stockpile 11 D		Stockpile 11 E		Stockpile 11 F		Stockpile 11 G	
Heavy metals																	
Arsenic	70	20	12.58	13	12	10	11	11	11	10	10	16	9	11	11	12	11
Cadmium	1,300	3	0.19	0.41	0.47	0.34	0.35	0.3	0.33	0.32	0.46	0.33	0.26	0.35	0.32	0.38	0.35
Chromium	6,300	>10,000	22.70	25	19	19	19	18	19	21	19	17	17	19	17	18	20
Copper	>10,000	>10,000	20.30	31	45	28	30	26	26	26	32	35	25	30	32	31	30
Lead	3,300	210	40.96	77	81	65	81	63	250	81	136	83	97	67	62	280	94
Nickel	6,000	400 ³	20.70	13	11	13	11	11	13	12	12	21	11	11	11	12	12
Zinc	400,000	7400 ³	93.94	320	350	300	290	250	260	280	410	330	240	300	270	330	310
Asbestos																	
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.01839
Loss On Ignition (organic content)																	
Ash (g/100g Dry wt)				92		92		93		94		94		93		93	
Organics percentage				8%		8%		7%		6%		6%		7%		7%	

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP11H-01	S2 - Landfill SP11H-02	S2 - Landfill SP11I-01	S2 - Landfill SP11I-02	S2 - Landfill SP11J-01	S2 - Landfill SP11J-02	S2 - Landfill SP11K-01	S2 - Landfill SP11K-02	S2 - Landfill SP11L-01	S2 - Landfill SP11L-02	S2 - Landfill SP11M-01	S2 - Landfill SP11M-02	S2 - Landfill SP11N-01	S2 - Landfill SP11N-02
				Stockpile 11 H		Stockpile 11 I		Stockpile 11 J		Stockpile 11 K		Stockpile 11 L		Stockpile 11 M		Stockpile 11 N	
Heavy metals																	
Arsenic	70	20	12.58	11	8	9	10	10	9	10	11	11	7	9	9	11	10
Cadmium	1,300	3	0.19	0.28	0.38	0.32	0.3	0.3	0.31	0.3	0.33	0.3	0.24	0.28	0.25	0.43	0.33
Chromium	6,300	>10,000	22.70	17	17	18	18	17	17	18	18	18	14	17	16	18	17
Copper	>10,000	>10,000	20.30	24	37	35	28	26	29	28	32	40	20	70	23	30	25
Lead	3,300	210	40.96	58	68	69	69	64	71	74	71	61	49	68	58	65	70
Nickel	6,000	400 ³	20.70	11	11	11	11	11	11	11	11	11	10	11	11	12	11
Zinc	400,000	7400 ³	93.94	250	280	270	250	270	260	270	340	240	210	280	240	330	310
Asbestos																	
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)																	
Ash (g/100g Dry wt)				92		93		93		93		94		94		94	
Organics percentage				8%		7%		7%		7%		6%		6%		6%	

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 17: Summary of Soil Analytical Results - Landfill Stockpile 12

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/Industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP12A-01	S2 - Landfill SP12A-02	S2 - Landfill SP12A-03	S2 - Landfill SP12B-01	S2 - Landfill SP12B-02	S2 - Landfill SP12B-03	S2 - Landfill SP12C-01	S2 - Landfill SP12C-02	S2 - Landfill SP12C-03	S2 - Landfill SP12D-01	S2 - Landfill SP12D-02	S2 - Landfill SP12D-03	S2 - Landfill SP12E-01	S2 - Landfill SP12E-02	S2 - Landfill SP12E-03	S2 - Landfill SP12F-01	S2 - Landfill SP12F-02	S2 - Landfill SP12F-03
				Stockpile 12A			Stockpile 12B			Stockpile 12C			Stockpile 12D			Stockpile 12E			Stockpile 12F		
				Heavy metals																	
Arsenic	70	20	12.58	9	9	13	9	10	8	9	9	9	10	10	13	10	10	9	10	11	12
Cadmium	1,300	3	0.19	0.33	0.41	0.37	0.3	0.59	0.37	0.35	0.41	0.55	0.38	0.37	0.39	0.4	0.32	0.28	0.29	0.5	0.42
Chromium	6,300	>10,000	22.70	18	18	22	18	18	17	18	17	16	25	18	27	18	18	16	17	19	18
Copper	>10,000	>10,000	20.30	29	27	28	27	32	27	29	48	31	62	32	36	30	27	31	27	33	34
Lead	3,300	210	40.96	70	98	88	94	124	85	83	102	85	73	66	76	110	70	61	69	81	84
Nickel	6,000	400 ³	20.70	11	12	11	11	13	11	11	14	14	11	12	12	12	11	11	11	13	11
Zinc	400,000	7400 ³	93.94	570	360	320	310	460	330	310	400	590	330	310	310	350	290	280	260	340	630
Asbestos																					
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.004	0.002	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)																					
Ash (g/100g Dry wt)				94			93			94			93			93			93		
Organics percentage				6%			7%			6%			7%			7%			7%		

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/Industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP12G-01	S2 - Landfill SP12G-02	S2 - Landfill SP12G-03	S2 - Landfill SP12H-01	S2 - Landfill SP12H-02	S2 - Landfill SP12H-03	S2 - Landfill SP12I-01	S2 - Landfill SP12I-02	S2 - Landfill SP12I-03	S2 - Landfill SP12J-01	S2 - Landfill SP12J-02	S2 - Landfill SP12J-03	S2 - Landfill SP12K-01	S2 - Landfill SP12K-02	S2 - Landfill SP12K-03	S2 - Landfill SP12L-01	S2 - Landfill SP12L-02	S2 - Landfill SP12L-03
				Stockpile 12G			Stockpile 12H			Stockpile 12I			Stockpile 12J			Stockpile 12K			Stockpile 12L		
				Heavy metals																	
Arsenic	70	20	12.58	8	9	11	8	11	10	8	8	7	10	10	12	10	9	11	8	12	13
Cadmium	1,300	3	0.19	0.34	0.46	0.49	0.41	0.53	0.51	0.55	0.44	0.41	0.4	0.55	0.39	0.45	0.49	0.48	0.51	0.47	0.59
Chromium	6,300	>10,000	22.70	17	18	18	17	18	19	18	17	16	18	18	21	18	18	23	17	19	19
Copper	>10,000	>10,000	20.30	28	29	37	29	32	31	44	28	26	29	30	30	31	30	33	35	31	37
Lead	3,300	210	40.96	68	87	85	82	93	330	104	78	71	103	88	85	87	93	106	85	101	106
Nickel	6,000	400 ³	20.70	11	11	13	11	13	11	12	12	11	12	12	12	13	13	13	13	13	16
Zinc	400,000	7400 ³	93.94	350	360	780	370	440	480	390	400	390	330	450	330	420	460	420	390	420	530
Asbestos																					
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)																					
Ash (g/100g Dry wt)				93			93			92			93			91			93		
Organics percentage				7%			7%			8%			7%			9%			7%		

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/Industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP12M-01	S2 - Landfill SP12M-02	S2 - Landfill SP12M-03	S2 - Landfill SP12N-01	S2 - Landfill SP12N-02	S2 - Landfill SP12N-03	S2 - Landfill SP12O-01	S2 - Landfill SP12O-02	S2 - Landfill SP12O-03	S2 - Landfill SP12P-01	S2 - Landfill SP12P-02	S2 - Landfill SP12P-03	S2 - Landfill SP12Q-01	S2 - Landfill SP12Q-02	S2 - Landfill SP12Q-03	S2 - Landfill SP12R-01	S2 - Landfill SP12R-02	S2 - Landfill SP12R-03
				Stockpile 12M			Stockpile 12N			Stockpile 12O			Stockpile 12P			Stockpile 12Q			Stockpile 12R		
Heavy metals																					
Arsenic	70	20	12.58	8	8	8	9	12	11	10	10	10	9	9	9	10	8	10	8	9	9
Cadmium	1,300	3	0.19	0.33	0.35	0.37	0.36	0.35	0.34	0.45	0.46	0.46	0.54	0.43	0.4	0.4	0.44	0.51	0.61	0.52	0.4
Chromium	6,300	>10,000	22.70	19	50	17	17	22	16	18	17	17	16	18	17	19	19	18	20	17	19
Copper	>10,000	>10,000	20.30	137	37	26	26	30	28	35	30	29	39	29	39	31	28	31	36	32	37
Lead	3,300	210	40.96	68	65	74	67	132	67	100	72	95	80	84	84	80	80	72	75	78	77
Nickel	6,000	400 ³	20.70	13	15	11	11	11	11	13	12	12	12	19	12	13	12	12	13	12	12
Zinc	400,000	7400 ³	93.94	320	290	380	300	330	340	390	460	440	420	450	380	350	390	670	540	410	400
Asbestos																					
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	<0.001	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)																					
Ash (g/100g Dry wt)				93			93			93			92			92			93		
Organics percentage				7%			7%			7%			8%			8%			7%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

- 1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
- 2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
- 3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
- 4. ECan adopted background value for Total DDT.



Laboratory Results Table 18: Summary of Soil Analytical Results - Landfill Stockpile 13

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-Landfill SP13A-01	S2-Landfill SP13A-02	S2-Landfill SP13A-03	S2-Landfill SP13B-01	S2-Landfill SP13B-02	S2-Landfill SP13B-03	S2-Landfill SP13C-01	S2-Landfill SP13C-02	S2-Landfill SP13C-03
				Stockpile 13A			Stockpile 13B			Stockpile 13C		
Heavy metals												
Arsenic	70	20	12.58	5	6	6	5	6	7	5	6	9
Cadmium	1,300	3	0.19	0.28	0.29	0.31	0.2	0.28	0.31	0.3	0.25	0.25
Chromium	6,300	>10,000	22.70	13	14	14	13	15	16	14	13	16
Copper	>10,000	>10,000	20.30	16	29	28	13	21	27	31	17	24
Lead	3,300	210	40.96	56	62	62	49	4	165	90	58	47
Nickel	6,000	400 ³	20.70	10	17	10	10	11	11	12	20	12
Zinc	400,000	7400 ³	93.94	250	290	270	200	310	350	270	260	260
Asbestos												
Concentration (%wt/wt)		0.001	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)												
Ash (g/100g Dry wt)				95			95			95		
Organics percentage				5%			5%			5%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

- mg/kg = milligrams per kilogram
- A hyphen (-) indicates criteria are not available or sample not tested for this analyte
- < LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 19: Summary of Soil Analytical Results - Landfill Stockpile 14

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-Landfill SP14A-01	S2-Landfill SP14A-02	S2-Landfill SP14A-03	S2-Landfill SP14B-01	S2-Landfill SP14B-02	S2-Landfill SP14B-03	S2-Landfill SP14C-01	S2-Landfill SP14C-02	S2-Landfill SP14C-03	S2-Landfill SP14D-01	S2-Landfill SP14D-02	S2-Landfill SP14D-03
				Stockpile 14A			Stockpile 14B			Stockpile 14C			Stockpile 14D		
Heavy metals															
Arsenic	70	20	12.58	7	6	8	10	8	7	9	8	7	6	7	7
Cadmium	1,300	3	0.19	0.29	0.26	0.47	0.75	0.54	0.32	0.59	0.39	0.24	0.3	0.39	0.28
Chromium	6,300	>10,000	22.70	14	14	18	15	14	14	15	14	14	14	14	14
Copper	>10,000	>10,000	20.30	21	21	23	33	22	25	23	23	21	17	22	20
Lead	3,300	210	40.96	60	61	68	77	106	60	64	54	47	36	62	53
Nickel	6,000	400 ³	20.70	10	9	12	11	10	10	11	10	9	9	10	10
Zinc	400,000	7400 ³	93.94	260	240	360	370	340	270	370	290	210	210	300	250
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	0.023	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				92			93			92			92		
Organics percentage				8%			7%			8%			8%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 20: Summary of Soil Analytical Results - Landfill Stockpile 15

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP15A-01	S2 - Landfill SP15A-02	S2 - Landfill SP15A-03	S2 - Landfill SP15B-01	S2 - Landfill SP15B-02	S2 - Landfill SP15B-03	S2 - Landfill SP15C-01	S2 - Landfill SP15C-02	S2 - Landfill SP15C-03
				Stockpile 15A			Stockpile 15B			Stockpile 15C		
Heavy metals												
Arsenic	70	20	12.58	7	8	6	7	7	7	6	6	6
Cadmium	1,300	3	0.19	0.25	0.4	0.22	0.23	0.22	0.22	0.35	0.24	0.22
Chromium	6,300	>10,000	22.70	15	14	15	16	15	15	15	15	15
Copper	>10,000	>10,000	20.30	21	20	18	19	18	18	19	19	19
Lead	3,300	210	40.96	45	59	39	35	37	37	37	37	35
Nickel	6,000	400 ³	20.70	10	9	10	10	10	10	10	9	10
Zinc	400,000	7400 ³	93.94	186	330	167	187	181	230	390	200	192
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)												
Ash (g/100g Dry wt)				92			93			93		
Organics percentage				8%			7%			7%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

- Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
- Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
- National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
- ECan adopted background value for Total DDT.

Laboratory Results Table 21: Summary of Soil Analytical Results - Landfill Stockpile 16

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Landfill SP16A - 01	S2 - Landfill SP16A - 02	S2 - Landfill SP16A - 03	S2 - Landfill SP16B - 01	S2 - Landfill SP16B - 02	S2 - Landfill SP16B - 03	S2 - Landfill SP16C - 01	S2 - Landfill SP16C - 02	S2 - Landfill SP16C - 03	S2 - Landfill SP16D - 01	S2 - Landfill SP16D - 02	S2 - Landfill SP16D - 03
				Stockpile 16A			Stockpile 16B			Stockpile 16C			Stockpile 16D		
Heavy metals															
Arsenic	70	20	12.58	6	6	5	6	6	6	4	6	6	5	5	5
Cadmium	1,300	3	0.19	0.45	0.71	0.21	0.29	0.22	0.24	0.12	0.24	0.17	0.13	0.16	0.15
Chromium	6,300	>10,000	22.70	15	15	15	15	15	15	15	15	16	16	16	16
Copper	>10,000	>10,000	20.30	18	23	16	23	20	25	12	16	14	12	14	14
Lead	3,300	210	40.96	36	46	36	45	35	50	20	36	23	21	30	25
Nickel	6,000	400 ³	20.70	10	10	10	12	10	10	9	10	9	10	10	9
Zinc	400,000	7400 ³	93.94	178	210	137	210	156	210	80	170	100	74	113	133
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Loss On Ignition (organic content)															
Ash (g/100g Dry wt)				93			95			93			90		
Organics percentage				7%			5%			7%			10%		

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.

Appendix B4 – Landfill Validation Summary Tables



Laboratory Results Table 22: Summary of Soil Analytical Results - Landfill Validations

Discrete Sample Identification	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-Landfill Val-01	S2-Landfill Val-02	S2-Landfill Val-03	S2-Landfill Val-04	S2-Landfill Val-101	S2-Landfill Val-102	S2-Landfill Val-201	S2 -Landfill Val-202	S2-Landfill Val-203	S2-Landfill Val-204	S2- Landfill Val-301	S2- Landfill Val-302
			Val 00s				Val 100s		Val 200s				Val 300s	
Heavy metals														
Arsenic	20	12.58	4	3	< 2	4	3	3	2	3	4	2	4	3
Cadmium	3	0.19	< 0.10	< 0.10	0.14	0.28	<0.1	0.34	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium	>10,000	22.70	12	12	10	16	12	12	11	13	13	11	13	12
Copper	>10,000	20.30	7	6	6	6	7	11	6	6	7	5	7	7
Lead	210	40.96	11.5	12.8	23	16.8	14.1	12.3	11	14.7	13.6	9.8	13.6	11.1
Nickel	400 ³	20.70	9	10	9	11	10	10	9	10	10	9	9	9
Zinc	7400 ³	93.94	48	59	113	159	50	73	38	56	350	34	47	42
Asbestos														
Concentration (%wt/wt)	0.001 ⁵	-	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected

Discrete Sample Identification	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-Landfill Val-401	S2-Landfill Val-402	S2-Landfill Val-403	S2-L.F Sorting VAL-01	S2-L.F Sorting VAL-02	S2-L.F Sorting VAL-03						
			Val 400s			Landfill Sorting Val 00s								
Heavy metals														
Arsenic	20	12.58	3	2	<2	5	5	5						
Cadmium	3	0.19	<0.1	<0.1	<0.1	<0.10	0.1	<0.10						
Chromium	>10,000	22.70	13	11	11	16	17	17						
Copper	>10,000	20.30	7	5	5	11	10	10						
Lead	210	40.96	15.3	11.2	9.8	23	21	21						
Nickel	400 ³	20.70	10	9	10	12	12	12						
Zinc	7400 ³	93.94	50	39	91	78	74	67						
Asbestos														
Concentration (%wt/wt)	0.001 ⁵	-	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected	NOT Detected						

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.

Appendix B5 – Offal Pit Stockpile Summary Tables



Laboratory Results Table 23: Summary of Soil Analytical Results - Offal Pit Stockpile 1

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Offal SP1A - 01	S2 - Offal SP1A - 02	S2 - Offal SP1A - 03	S2 - Offal SP1B - 01	S2 - Offal SP1B - 02	S2 - Offal SP1B - 03	S2 - Offal SP1C - 01	S2 - Offal SP1C - 02	S2 - Offal SP1C - 03
				Stockpile 1 A			Stockpile 1 B			Stockpile 1 C		
Heavy metals												
Arsenic	70	20	12.58	34	84	27	210	210	290	230	38	210
Cadmium	1,300	3	0.19	0.18	0.49	0.18	0.29	0.2	0.91	0.23	0.24	0.19
Chromium	6,300	>10,000	22.70	20	36	19	69	53	86	56	28	45
Copper	>10,000	>10,000	20.30	36	83	34	179	193	220	210	66	186
Lead	3,300	210	40.96	17.9	25	27	38	46	56	58	166	55
Nickel	6,000	400 ³	20.70	9	11	10	10	9	12	12	10	9
Zinc	400,000	7400 ³	93.94	240	390	169	270	230	680	220	340	260
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Present	Not Detected	Not Detected

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Offal SP1D - 01	S2 - Offal SP1D - 02	S2 - Offal SP1D - 03	S2 - Offal SP1E - 01	S2 - Offal SP1E - 02	S2 - Offal SP1E - 03	S2 - Offal SP1F - 01	S2 - Offal SP1F - 02	S2 - Offal SP1F - 03
				Stockpile 1 D			Stockpile 1 E			Stockpile 1 F		
Heavy metals												
Arsenic	70	20	12.58	48	53	51	11	23	20	4	4	5
Cadmium	1,300	3	0.19	0.26	0.21	0.28	0.11	0.1	< 0.10	< 0.10	< 0.10	0.1
Chromium	6,300	>10,000	22.70	24	24	30	15	15	16	12	12	14
Copper	>10,000	>10,000	20.30	790	71	134	15	15	23	7	10	11
Lead	3,300	210	40.96	620	210	700	75	45	118	19.5	27	46
Nickel	6,000	400 ³	20.70	10	10	11	9	9	9	9	9	9
Zinc	400,000	7400 ³	93.94	430	350	400	168	101	140	68	79	85
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.



Laboratory Results Table 24: Summary of Soil Analytical Results - Offal Pit Stockpile 2

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Offal SP2A - 01	S2 - Offal SP2A - 02	S2 - Offal SP2A - 03	S2 - Offal S21B - 01	S2 - Offal SP2B - 02	S2 - Offal SP2B - 03	S2 - Offal SP2C - 01	S2 - Offal SP2C - 02	S2 - Offal SP2C - 03
				Stockpile 2 A			Stockpile 2 B			Stockpile 2 C		
Heavy metals												
Arsenic	70	20	12.58	8	9	9	9	17	11	55	66	86
Cadmium	1,300	3	0.19	0.14	0.17	0.12	0.12	0.21	0.15	0.95	0.41	0.54
Chromium	6,300	>10,000	22.70	14	14	15	14	17	15	31	38	41
Copper	>10,000	>10,000	20.30	13	15	18	13	31	16	75	71	79
Lead	3,300	210	40.96	13.4	14.7	14	13.1	19.7	14.1	430	27	55
Nickel	6,000	400 ³	20.70	10	9	9	9	10	10	11	11	12
Zinc	400,000	7400 ³	93.94	220	220	230	210	350	230	380	330	350
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Offal SP2D - 01	S2 - Offal SP2D - 02	S2 - Offal SP2D - 03	S2 - Offal SP2E - 01	S2 - Offal SP2E - 02	S2 - Offal SP2E - 03	S2 - Offal SP2F - 01	S2 - Offal SP2F - 02	S2 - Offal SP2F - 03
				Stockpile 2 D			Stockpile 2 E			Stockpile 2 F		
Heavy metals												
Arsenic	70	20	12.58	28	22	23	17	21	27	29	24	17
Cadmium	1,300	3	0.19	0.93	0.38	0.39	0.21	0.22	0.48	0.34	0.29	0.21
Chromium	6,300	>10,000	22.70	21	18	19	17	18	19	30	19	16
Copper	>10,000	>10,000	20.30	116	41	78	26	35	45	59	37	46
Lead	3,300	210	40.96	31	55	28	20	19.3	25	21	31	20
Nickel	6,000	400 ³	20.70	92	10	11	10	10	10	11	10	10
Zinc	400,000	7400 ³	93.94	6000	700	230	189	170	200	200	182	165
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

- 1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
- 2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
- 3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
- 4. ECan adopted background value for Total DDT.



Laboratory Results Table 25: Summary of Soil Analytical Results - Offal Pit Stockpile 3

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Offal SP3A - 01	S2 - Offal SP3A - 02	S2 - Offal SP3A - 03	S2 - Offal SP3B - 01	S2 - Offal SP3B - 02	S2 - Offal SP3B - 03	S2 - Offal SP3C - 01	S2 - Offal SP3C - 02	S2 - Offal SP3C - 03
				Stockpile 3 A			Stockpile 3 B			Stockpile 3 C		
Heavy metals												
Arsenic	70	20	12.58	94	56	60	14	126	82	14	39	80
Cadmium	1,300	3	0.19	0.37	0.17	0.19	0.27	0.47	0.37	0.24	0.23	0.67
Chromium	6,300	>10,000	22.70	39	32	38	18	51	35	18	24	39
Copper	>10,000	>10,000	20.30	107	51	48	24	118	93	26	51	88
Lead	3,300	210	40.96	42	23	23	19.6	38	106	26	50	135
Nickel	6,000	400 ³	20.70	13	12	11	11	12	11	11	12	11
Zinc	400,000	7400 ³	93.94	340	155	156	186	440	370	145	260	340
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - Offal SP3D - 01	S2 - Offal SP3D - 02	S2 - Offal SP3D - 03	S2 - Offal SP3E - 01	S2 - Offal SP3E - 02	S2 - Offal SP3E - 03	S2 - Offal SP3F - 01	S2 - Offal SP3F - 02	S2 - Offal SP3F - 03
				Stockpile 3 D			Stockpile 3 E			Stockpile 3 F		
Heavy metals												
Arsenic	70	20	12.58	15	17	42	14	13	12	< 2	4	< 2
Cadmium	1,300	3	0.19	0.2	0.13	0.17	0.15	0.14	0.14	< 0.10	< 0.10	< 0.10
Chromium	6,300	>10,000	22.70	18	18	24	18	16	17	11	15	12
Copper	>10,000	>10,000	20.30	40	27	270	26	24	24	6	12	7
Lead	3,300	210	40.96	19.3	74	89	29	75	18.2	12.8	15.1	13.1
Nickel	6,000	400 ³	20.70	12	10	11	12	11	11	9	11	9
Zinc	400,000	7400 ³	93.94	154	143	210	151	153	230	51	90	118
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.

Appendix B6 – Offal Pit Validation Summary Tables

				Laboratory Results Table 26: Summary of Soil Analytical Results - Offal Pit Stockpile 3											
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2- Offal Val - 01	S2- Offal Val - 02	S2- Offal Val - 03	S2- Offal Val - 04	S2- Offal Val - 05	S2- Offal Val - 101	S2- Offal Val - 102	S2- Offal Val - 103	S2- Offal Val - 104	S2- Offal Val - 301	S2- Offal Val - 302	-
				Validation 00s					Validation 100s			Validation 300s		-	
Heavy metals															
Arsenic	70	20	12.58	< 2	< 2	3	4	31	3	<2	7	3	2	2	-
Cadmium	1,300	3	0.19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-
Chromium	6,300	>10,000	22.70	12	11	11	10	22	12	10	12	12	12	12	-
Copper	>10,000	>10,000	20.30	6	6	6	5	20	6	5	6	5	7	6	-
Lead	3,300	210	40.96	14	11.4	10.5	8.6	17.3	11.5	8.3	9.2	9.6	12.4	11.2	-
Nickel	6,000	400 ³	20.70	19	8	8	8	11	10	8	9	9	9	10	-
Zinc	400,000	7400 ³	93.94	42	35	36	31	93	42	38	42	34	44	43	-
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	-

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2- Offal Val - 401	S2- Offal Val - 402	S2- Offal Val - 403	S2- Offal Val - 404	S2- Offal Val - 501	S2- Offal Val - 502	S2- Offal Val - 503	S2- Offal Val - 504	S2- Offal Val - 505	S2- Offal Val - 601	S2- Offal Val - 602	S2- Offal Val - 603
				Validation 400s				Validation 500s				Validation 600s			
Heavy metals															
Arsenic	70	20	12.58	3	6	5	6	4	3	5	6	4	4	4	3
Cadmium	1,300	3	0.19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	6,300	>10,000	22.70	11	12	10	12	15	13	11	13	13	13	12	11
Copper	>10,000	>10,000	20.30	5	6	5	8	5	6	6	7	5	7	7	5
Lead	3,300	210	40.96	9.1	9.7	8.4	14.1	11.1	10.6	10.5	11.6	10.5	13.9	12.5	9.7
Nickel	6,000	400 ³	20.70	9	9	9	11	11	9	9	9	10	10	9	9
Zinc	400,000	7400 ³	93.94	33	36	35	44	38	41	36	47	37	42	39	32
Asbestos															
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.

Appendix B7 – Lots, Roads and Silt Stockpile Summary Tables

Laboratory Results Table 27: Summary of Soil Analytical Results - Lots and Roads Validation

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MFE Hierarchy - Commercial/Industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MFE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2-Val-Lot 253-01	S2-Val-Lot 253-02	S2-Val-Lot 253-03	S2-Val-Lot 254-01	S2-Val-Lot 254-02	S2-Val-Lot 254-03	S2 - C.T-S.Lot 4004 - 01	S2 - C.T-S.Lot 4004 - 02	S2 - C.T-S.Lot 4004 - 03	S2 - C.T-S.Lot 4004 Val - 01
				Lot 253			Lot 254			South of Lot 4004 Stockpile			South of Lot 4004 Val
Heavy metals													
Arsenic	70	20	12.58	5	2	4	4	3	5	3	4	<2	4
Cadmium	1,300	3	0.19	< 0.1	< 0.1	0.16	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	6,300	>10,000	22.70	17	13	15	13	11	11	13	13	4	15
Copper	>10,000	>10,000	20.30	8	4	13	5	4	6	6	8	<2	6
Lead	3,300	210	40.96	23	10.5	39	11.9	9.6	9.6	12.6	14.3	7.3	14.8
Nickel	6,000	400 ³	20.70	12	11	10	10	9	9	10	10	2	11
Zinc	400,000	7400 ³	93.94	81	53	90	42	32	36	45	52	13	49
Polycyclic aromatic hydrocarbons (PAHs)													
1-Methylnaphthalene	-	-	<LOR	-	-	-	-	-	-	<0.011	<0.012	0.18	<0.012
2-Methylnaphthalene	-	-	<LOR	-	-	-	-	-	-	<0.011	<0.012	0.18	<0.012
Acenaphthylene	-	-	0.069	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Acenaphthene	-	-	0.055	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Anthracene	-	-	0.113	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Benzo[a]anthracene	-	-	0.47	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Benzo[a]pyrene (BAP)	-	-	0.595	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES	-	-	-	-	-	-	-	-	-	<0.026	<0.028	<0.24	<0.028
Benzo[a]pyrene Toxic Equivalence (TEF)	-	10	-	-	-	-	-	-	-	<0.026	<0.028	<0.3	<0.028
Benzo[b]fluoranthene + Benzo[j]fluoranthene	-	-	0.947	-	-	-	-	-	-	0.011	<0.012	0.1	<0.012
Benzo[e]pyrene	-	-	<LOR	-	-	-	-	-	-	0.035	<0.012	0.17	<0.012
Benzo[g,h,i]perylene	-	-	0.459	-	-	-	-	-	-	0.016	<0.012	0.11	<0.012
Benzo[k]fluoranthene	-	-	0.296	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Chrysene	-	-	0.539	-	-	-	-	-	-	<0.011	<0.012	0.11	<0.012
Dibenzo[a,h]anthracene	-	-	0.112	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Fluoranthene	-	-	1.345	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Fluorene	-	-	0.06	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Indeno[1,2,3-c,d]pyrene	-	-	0.385	-	-	-	-	-	-	<0.011	<0.012	<0.10	<0.012
Naphthalene	-	-	0.029	-	-	-	-	-	-	<0.06	<0.06	<0.5	<0.06
Perylene	-	-	<LOR	-	-	-	-	-	-	0.029	<0.012	0.12	<0.012
Phenanthrene	-	-	0.703	-	-	-	-	-	-	0.013	<0.012	0.17	<0.012
Pyrene	-	-	1.362	-	-	-	-	-	-	0.024	<0.012	0.11	<0.012

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.



Laboratory Results Table 28: Summary of Soil Analytical Results - Landfill Cap

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - L.F - Cap - 01	S2 - L.F - Cap - 02	S2 - L.F - Cap - 03	S2 - L.F - Cap - 04	S2 - L.F - Cap - SP101	S2 - L.F - Cap - SP102	S2 - L.F - Cap - SP103	S2 - L.F - Cap - SP104	S2 - L.F - Cap - SP105	S2 - L.F - Cap - SP106	S2 - L.F - Cap - SP201
				Landfill Capping 00s				Landfill Capping 100s						
Heavy metals														
Arsenic	70	20	12.58	4	3	5	4	4	3	4	3	3	3	4
Cadmium	1,300	3	0.19	< 0.1	0.13	< 0.1	< 0.1	0.12	0.14	0.18	0.14	0.18	0.12	0.16
Chromium	6,300	>10,000	22.70	14	14	16	15	14	14	15	14	12	13	16
Copper	>10,000	>10,000	20.30	8	9	12	9	11	12	14	12	10	11	16
Lead	3,300	210	40.96	15	15	19.80	17	25	28	26	18.2	20	18.3	26
Nickel	6,000	400 ³	20.70	11	10	13	11	8	10	10	10	9	9	11
Zinc	400,000	7400 ³	93.94	60	60	67	60	63	71	89	70	108	69	86
Asbestos														
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - L.F - Cap - SP202	S2 - L.F - Cap - SP203	S2 - L.F - Cap - SP204	S2 - L.F - Cap - SP205	S2 - L.F - Cap - SP206	S2 - L.F - Cap - SP207	S2 - L.F - Cap - SP208	S2 - L.F - Cap - SP209	S2 - L.F - Cap - SP210	S2 - L.F - Cap - SP211	S2 - L.F - Cap - SP212
				Landfill Capping 200s										
Heavy metals														
Arsenic	70	20	12.58	4	3	5	2	3	4	4	3	3	3	3
Chromium	6,300	>10,000	22.70	13	13	14	11	13	15	15	13	13	13	10
Copper	>10,000	>10,000	20.30	8	8	12	4	12	14	16	10	9	8	6
Lead	3,300	210	40.96	17.2	15.6	31	14.2	19.0	58	29	18.8	18.9	18.1	13.4
Nickel	6,000	400 ³	20.70	9	9	9	8	10	9	10	9	9	8	7
Zinc	400,000	7400 ³	93.94	64	62	101	46	71	105	82	69	67	67	52
Asbestos														
Concentration (%wt/wt)		0.001 ⁵	-	-	Not Detected	-	Not Detected	-	Not Detected	-	Not Detected	-	Not Detected	-

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:
All sample depth units are: metres below ground level (m bgl)
mg/kg = milligrams per kilogram
A hyphen (-) indicates criteria are not available or sample not tested for this analyte
< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
4. ECan adopted background value for Total DDT.

Laboratory Results Table 29: Summary of Soil Analytical Results - Landfill Topsoil

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2 - L.F - Topsoil - SP101	S2 - L.F - Topsoil - SP102	S2 - L.F - Topsoil - SP103	S2 - L.F - Topsoil - SP104	S2 - L.F - Topsoil - SP105	S2 - L.F - Topsoil - SP106	S2 - L.F - Topsoil - SP107	S2 - L.F - Topsoil - SP108	S2 - L.F - Topsoil - SP109
Heavy metals												
Arsenic	70	20	12.58	4	3	3	3	3	4	4	3	4
Cadmium	1,300	3	0.19	0.17	0.13	0.12	0.12	0.16	0.22	0.17	0.14	0.2
Chromium	6,300	>10,000	22.70	13	12	13	12	13	12	14	14	13
Copper	>10,000	>10,000	20.30	10	8	8	8	9	14	9	10	10
Lead	3,300	210	40.96	21	15.9	15.7	15.4	15.4	86	27	19.2	22
Nickel	6,000	400 ³	20.70	9	9	9	9	10	8	9	10	9
Zinc	400,000	7400 ³	93.94	76	59	59	61	62	104	65	68	89
Asbestos												
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected			Not Detected		Not Detected		Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.

2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley

3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A

4. ECan adopted background value for Total DDT.



Laboratory Results Table 30: Summary of Soil Analytical Results - Offal Pit Capping Material

Discrete Sample Identification	Soil Contaminant Standards by NES1 and MfE Hierarchy - Commercial/industrial land use (mg/kg)	Soil Contaminant Standards by NES ¹ and MfE Hierarchy - Residential land use (mg/kg)	Background Concentrations ² (mg/kg)	S2- Offalpit Cap SP1-01	S2- Offalpit Cap SP1-02	S2- Offalpit Cap SP1-03	S2- Offalpit Cap SP1-04	S2- Offalpit Cap SP1-05
Heavy metals								
Arsenic	70	20	12.58	4	4	6	6	4
Cadmium	1,300	3	0.19	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	6,300	>10,000	22.70	12	12	14	13	12
Copper	>10,000	>10,000	20.30	6	5	11	9	5
Lead	3,300	210	40.96	15.2	11.5	39	20	14.3
Nickel	6,000	400 ³	20.70	10	10	10	10	10
Zinc	400,000	7400 ³	93.94	40	39	48	50	39
Asbestos								
Concentration (%wt/wt)		0.001 ⁵	-	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Highlighted, coloured cell indicates samples exceeds human health guideline, permitted activity criterion or background concentration

Notes:

mg/kg = milligrams per kilogram

A hyphen (-) indicates criteria are not available or sample not tested for this analyte

< LOR Indicates less than laboratory level of reporting.

- 1. Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES). Soil Contaminant Standards for Residential Land Use.
- 2. Environment Canterbury Report R07/1/2 (2007). Background Concentrations of Selected Trace Elements in Canterbury Soils. Level 2, Regional Recent, Gley
- 3. National Environmental Protection Measure (Assessment of Site Contamination)1999, update 2013 Schedule B1, Land use Class Residential A
- 4. ECan adopted background value for Total DDT.

APPENDIX C

Laboratory Results

Appendix C1 – 1532 Springs Road Laboratory Results

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	3996651	SPv1
Contact:	Nathan Cash	Date Received:	30-Sep-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	03-Oct-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773-CHCGE 280252 AC	
		Client Reference:	Earlsbrook Stage 2 - House Val	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - 1532 H Val - 01 29-Sep-2025 10:05 am	S2 - 1532 H Val - 02 29-Sep-2025 10:10 am	S2 - 1532 H Val - 03 29-Sep-2025 10:12 am	S2 - 1532 H Val - 04 29-Sep-2025 10:15 am	S2 - 1532 H Val - 05 29-Sep-2025 10:16 am
Lab Number:	3996651.1	3996651.2	3996651.3	3996651.4	3996651.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic mg/kg dry wt	3	4	3	6	7
Total Recoverable Cadmium mg/kg dry wt	< 0.10	0.25	0.18	0.27	0.33
Total Recoverable Chromium mg/kg dry wt	12	10	12	12	14
Total Recoverable Copper mg/kg dry wt	7	8	10	12	18
Total Recoverable Lead mg/kg dry wt	42	75	55	86	134
Total Recoverable Nickel mg/kg dry wt	9	8	8	9	9
Total Recoverable Zinc mg/kg dry wt	109	168	172	161	165

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-5
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-5

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

Testing was completed between 01-Oct-2025 and 03-Oct-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Ara Heron BSc (Tech)
Client Services Manager - Environmental



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Appendix C2 – Asbestos Pipeline Laboratory Results

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	3986469	A2Pv1
Contact:	Nathan Cash	Date Received:	16-Sep-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	18-Sep-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook West Stage 2 - 00	
		Submitted By:	Nathan Cash	

Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P 01 Trench	3986469.1	926.9	756.7	55.8	Asbestos NOT detected.	-
S2-ASB P 02 Stockpile	3986469.2	731.3	663.8	52.6	Asbestos NOT detected.	-
S2-ASB P 03 Trench	3986469.3	822.9	689.9	59.1	Asbestos NOT detected.	-
S2-ASB P 04 Stockpile	3986469.4	713.1	664.3	50.9	Asbestos NOT detected.	-
S2-ASB P 05 Trench	3986469.5	620.7	537.7	59.6	Amosite (Brown Asbestos) detected.	Loose fibres (minor)
S2-ASB P 06 Stockpile	3986469.6	770.6	687.3	57.4	Asbestos NOT detected.	-
S2-ASB P 07 Trench	3986469.7	701.2	607.9	53.8	Asbestos NOT detected.	-
S2-ASB P 08 Stockpile	3986469.8	822.8	721.2	50.0	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Loose fibres (minor)
S2-ASB P 09 Trench	3986469.9	681.8	584.5	54.8	Asbestos NOT detected.	-
S2-ASB P 10 Stockpile	3986469.10	673.5	614.0	54.6	Chrysotile (White Asbestos) detected.	Loose fibres (minor)
S2-ASB P 11 Trench	3986469.11	696.7	576.9	54.4	Asbestos NOT detected.	-
S2-ASB P 12 Stockpile	3986469.12	721.9	625.6	59.9	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) give a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-12

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	3988720	A2Pv1
Contact:	Nathan Cash	Date Received:	18-Sep-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	24-Sep-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage2 - ASB Pipes 100s	
		Submitted By:	Nathan Cash	

Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P - 101 Trench	3988720.1	329.6	311.5	50.2	Asbestos NOT detected.	-
S2-ASB P - 102 Stockpile	3988720.2	454.0	401.3	50.8	Asbestos NOT detected.	-
S2-ASB P - 103 Trench	3988720.3	435.9	352.9	53.4	Asbestos NOT detected.	-
S2-ASB P - 104 Stockpile	3988720.4	515.6	452.3	52.9	Asbestos NOT detected.	-
S2-ASB P - 105 Trench	3988720.5	193.0	174.3	51.1	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Fibre Cement (2cm x 2cm), ACM debris (major) and Loose fibres (major)
S2-ASB P - 106 Stockpile	3988720.6	465.1	442.4	55.6	Asbestos NOT detected.	-
S2-ASB P - 107 Trench	3988720.7	305.5	276.1	52.9	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Degraded ACM Insulation board, ACM debris (major) and Loose fibres (major)
S2-ASB P - 108 Stockpile	3988720.8	323.6	312.0	57.0	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 109 Trench	3988720.9	280.2	253.3	51.7	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 110 Stockpile	3988720.10	423.7	388.4	56.1	Asbestos NOT detected.	-
S2-ASB P - 111 Trench	3988720.11	317.6	270.7	52.0	Asbestos NOT detected.	-
S2-ASB P - 112 Stockpile	3988720.12	450.2	418.3	56.5	Asbestos NOT detected.	-
S2-ASB P - 113 Trench	3988720.13	230.5	204.6	57.9	Asbestos NOT detected.	-
S2-ASB P - 114 Stockpile	3988720.14	265.6	256.0	58.8	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Insulation board (multiple pieces ~ 2x2 cm each), ACM debris (major), Loose fibres (major)
S2-ASB P - 115 Trench	3988720.15	323.4	280.6	54.0	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (minor) and Loose fibres (minor)
S2-ASB P - 116 Stockpile	3988720.16	542.3	515.1	52.4	Asbestos NOT detected.	-



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Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-16
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-16
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-16
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-16
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-16

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

Testing was completed between 23-Sep-2025 and 24-Sep-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Jessica Griffin BSc, BOHS W504
Team Leader - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	3991915	A2Pv1
Contact:	Nathan Cash	Date Received:	23-Sep-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	26-Sep-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage2 - ASB Pipes 200s	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P- 201 Trench	3991915.1	163.0	145.1	51.0	Asbestos NOT detected.	-
S2-ASB P- 202 Stockpile	3991915.2	162.9	158.4	57.3	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 203 Trench	3991915.3	210.5	184.3	55.7	Asbestos NOT detected.	-
S2-ASB P - 204 Stockpile	3991915.4	258.2	241.5	51.2	Asbestos NOT detected.	-
S2-ASB P - 205 Trench	3991915.5	177.3	159.6	50.4	Asbestos NOT detected.	-
S2-ASB P - 206 Stockpile	3991915.6	258.6	243.2	50.0	Asbestos NOT detected.	-
S2-ASB P - 207 Trench	3991915.7	199.8	175.2	50.3	Asbestos NOT detected.	-
S2-ASB P - 208 Stockpile	3991915.8	236.9	204.6	51.2	Chrysotile (White Asbestos) detected.	Loose fibres (major)

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-8
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-8



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Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-8
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-8
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-8

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

Testing was completed on 26-Sep-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 3

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	3994210	A2Pv1
Contact:	Nathan Cash	Date Received:	25-Sep-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	30-Sep-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage2 - ASB Pipes 300s	
		Submitted By:	Nathan Cash	

Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P - 301 Trench	3994210.1	62.5	55.2	49.6	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 302 Stockpile	3994210.2	214.7	206.6	51.2	Chrysotile (White Asbestos) detected.	Loose fibres (minor)
S2-ASB P - 303 Trench	3994210.3	201.3	182.6	52.9	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 304 Stockpile	3994210.4	195.9	182.9	52.5	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Cement board (~2 x 1 cm), ACM debris (major) and Loose fibres (minor)
S2-ASB P - 305 Trench	3994210.5	145.0	134.4	50.8	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 306 Stockpile	3994210.6	218.6	209.6	52.2	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 307 Trench	3994210.7	207.9	188.0	50.2	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P - 308 Stockpile	3994210.8	186.0	181.5	50.2	Asbestos NOT detected.	-
S2-ASB P - 309 Trench	3994210.9	189.6	164.3	54.0	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Cement board (~6x3cm), ACM debris (major)
S2-ASB P - 310 Stockpile	3994210.10	223.4	213.1	55.1	Asbestos NOT detected.	-
S2-ASB P - 311 Trench	3994210.11	184.8	174.5	58.6	Asbestos NOT detected.	-
S2-ASB P - 312 Stockpile	3994210.12	241.0	227.7	56.2	Asbestos NOT detected.	-
S2-ASB P - 313 Trench	3994210.13	189.9	178.3	53.9	Asbestos NOT detected.	-
S2-ASB P - 314 Stockpile	3994210.14	200.0	189.0	52.1	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major)
S2-ASB P - 315 Trench	3994210.15	145.4	141.6	50.4	Asbestos NOT detected.	-
S2-ASB P - 316 Stockpile	3994210.16	165.9	162.5	52.6	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Lagging (~2x2cm), ACM debris (major) and Loose fibres (major)
S2-ASB P - 317 Trench	3994210.17	145.5	136.6	52.7	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Compressed board (~5x3cm)



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Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P - 318 Stockpile	3994210.18	176.6	171.2	52.2	Asbestos NOT detected.	-
S2-ASB P - 319 Trench	3994210.19	240.2	200.8	55.8	Asbestos NOT detected.	-
S2-ASB P - 320 Stockpile	3994210.20	158.6	153.5	50.0	Asbestos NOT detected.	-
S2-ASB P - 321 Trench	3994210.21	163.4	133.8	56.1	Asbestos NOT detected.	-
S2-ASB P - 322 Stockpile	3994210.22	140.2	137.6	59.4	Asbestos NOT detected.	-
S2-ASB P - 323 Trench	3994210.23	175.3	139.9	53.7	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Cement board (2 pieces of 2.5 x 2.5cm)
S2-ASB P - 324 Stockpile	3994210.24	197.0	192.2	58.3	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-24
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-24
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-24

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

Testing was completed on 30-Sep-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, appearing to be 'J. Griffin', with a horizontal line above it.

Jessica Griffin BSc, BOHS W504
Team Leader - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	3995009	A2Pv1
Contact:	Nathan Cash	Date Received:	26-Sep-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	30-Sep-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlbrook Stage 2- ASB 400s	
		Submitted By:	Nathan Cash	

Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P- 401 Trench	3995009.1	176.5	168.3	57.5	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Insulation board (~ 2x1cm), ACM debris (major), Loose fibres (major)
S2-ASB P- 402 Stockpile	3995009.2	243.3	232.2	50.4	Asbestos NOT detected.	-
S2-ASB P- 403 Trench	3995009.3	252.4	232.4	51.0	Chrysotile (White Asbestos) detected.	Loose fibres (minor)
S2-ASB P- 404 Stockpile	3995009.4	249.2	233.3	56.6	Asbestos NOT detected.	-
S2-ASB P- 405 Trench	3995009.5	218.8	204.6	54.1	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major)
S2-ASB P- 406 Stockpile	3995009.6	204.8	195.5	56.1	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major)
S2-ASB P- 407 Trench	3995009.7	242.1	206.5	59.1	Asbestos NOT detected.	-
S2-ASB P- 408 Stockpile	3995009.8	247.4	236.2	54.3	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P- 409 Trench	3995009.9	218.0	187.3	51.0	Asbestos NOT detected.	-
S2-ASB P- 410 Stockpile	3995009.10	221.3	210.1	57.0	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	Fibre cement (4.5cm x 3cm)
S2-ASB P- 411 Trench	3995009.11	208.6	183.0	58.2	Asbestos NOT detected.	-
S2-ASB P- 412 Stockpile	3995009.12	160.7	155.1	55.8	Asbestos NOT detected.	-
S2-ASB P- 413 Trench	3995009.13	157.4	138.7	53.5	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major) and Loose fibres (major)
S2-ASB P- 414 Stockpile	3995009.14	241.7	231.0	54.0	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.



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.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-14
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-14
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-14
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-14
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-14

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

Testing was completed on 30-Sep-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Jessica Griffin BSc, BOHS W504
Team Leader - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4008824	A2Pv1
Contact:	Nathan Cash	Date Received:	15-Oct-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	17-Oct-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage2 - ASB 500s	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P-501 Trench	4008824.1	205.9	169.0	54.7	Asbestos NOT detected.	-
S2-ASB P-502 Stockpile	4008824.2	233.7	201.8	54.9	Asbestos NOT detected.	-
S2-ASB P-503 Stockpile	4008824.3	305.9	264.6	55.9	Asbestos NOT detected.	-
S2-ASB P-504 Trench	4008824.4	214.4	191.8	53.5	Asbestos NOT detected.	-
S2-ASB P-505 Trench	4008824.5	185.3	164.2	51.9	Asbestos NOT detected.	-
S2-ASB P-506 Trench	4008824.6	210.2	187.2	56.4	Asbestos NOT detected.	-
S2-ASB P-507 Trench	4008824.7	229.4	207.4	58.9	Asbestos NOT detected.	-
S2-ASB P-508 Stockpile	4008824.8	205.5	180.9	56.3	Asbestos NOT detected.	-
S2-ASB P-509 Stockpile	4008824.9	219.3	196.4	56.4	Asbestos NOT detected.	-
S2-ASB P-510 Trench	4008824.10	223.6	199.6	56.6	Asbestos NOT detected.	-
S2-ASB P-511 Trench	4008824.11	131.6	117.8	59.2	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (minor)
S2-ASB P-512 Stockpile	4008824.12	133.7	125.5	53.0	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.	ACM debris (major)
S2-ASB P-513 Trench	4008824.13	176.1	149.3	57.7	Asbestos NOT detected.	-
S2-ASB P-514 Stockpile	4008824.14	221.8	195.2	56.6	Asbestos NOT detected.	-
S2-ASB P-515 Trench	4008824.15	197.6	171.8	56.4	Asbestos NOT detected.	-
S2-ASB P-516 Stockpile	4008824.16	226.4	199.1	51.8	Asbestos NOT detected.	-
S2-ASB P-517 Stockpile	4008824.17	199.0	174.4	54.4	Asbestos NOT detected.	-
S2-ASB P-518 Stockpile	4008824.18	193.3	175.2	51.4	Asbestos NOT detected.	-
S2-ASB P-519 Trench	4008824.19	203.1	178.3	57.9	Asbestos NOT detected.	-
S2-ASB P-520 Stockpile	4008824.20	205.7	186.9	57.8	Asbestos NOT detected.	-
S2-ASB P-521 Trench	4008824.21	206.5	175.9	51.0	Asbestos NOT detected.	-
S2-ASB P-522 Trench	4008824.22	174.0	150.9	53.2	Asbestos NOT detected.	-



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Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P-523 Stockpile	4008824.23	277.7	244.7	51.1	Asbestos NOT detected.	-
S2-ASB P-524 Trench	4008824.24	152.0	132.1	51.3	Asbestos NOT detected.	-
S2-ASB P-525 Stockpile	4008824.25	234.5	220.4	56.4	Asbestos NOT detected.	-
S2-ASB P-526 Trench	4008824.26	177.6	158.5	56.2	Asbestos NOT detected.	-
S2-ASB P-527 Trench	4008824.27	156.7	128.6	59.1	Asbestos NOT detected.	-
S2-ASB P-528 Trench	4008824.28	156.7	131.6	57.3	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-28
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-28
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-28
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-28
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-28

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

Testing was completed on 17-Oct-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4022183	A2Pv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	03-Nov-2025	
		Date Reported:	05-Nov-2025	
		Quote No:	86992	
		Order No:	773-CHCGE280252AC	
		Client Reference:	Stage 2 Asbestos 600s	
		Submitted By:	Nathan Cash	

Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-ASB P-601 Trench	4022183.1	313.1	268.6	51.4	Asbestos NOT detected.	-
S2-ASB P-602 Stockpile	4022183.2	191.6	173.8	51.0	Asbestos NOT detected.	-
S2-ASB P-603 Stockpile	4022183.3	273.5	249.0	51.9	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-3
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-3
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-3

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

Testing was completed on 05-Nov-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, appearing to read 'John Keneth Paglingayen', with a stylized, cursive script.

John Keneth Paglingayen BApSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4030137	A2Pv1
Contact:	Nathan Cash	Date Received:	12-Nov-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	18-Nov-2025	
	PO Box 1872	Quote No:	86992	
	Christchurch 8140	Order No:	773 - CHCGE 280 252 AC	
		Client Reference:	Stage 2 ASB 700	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2 - ASB P-701	4030137.1	326.1	272.7	50.3	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1



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

Testing was completed on 18-Nov-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, appearing to be 'JG', with a horizontal line above it.

Jessica Griffin BSc, BOHS W504
Team Leader - Asbestos

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-12
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-12
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-12
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-12

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

Testing was completed between 17-Sep-2025 and 18-Sep-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Jessica Griffin BSc, BOHS W504
Team Leader - Asbestos

Appendix C3 – Landfill Stockpile Laboratory Results

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4043237	SPv1
Contact:	Nathan Cash	Date Received:	27-Nov-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	01-Dec-2025	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage 2 Landfill Stockpile 0	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2 Landfill SP00-01 27-Nov-2025	S2 Landfill SP00-02 27-Nov-2025	S2 Landfill SP00-03 27-Nov-2025	S2 Landfill SP00-04 27-Nov-2025
Lab Number:		4043237.1	4043237.2	4043237.3	4043237.4
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	18	19	10	11
Total Recoverable Cadmium	mg/kg dry wt	0.67	0.77	1.59	0.39
Total Recoverable Chromium	mg/kg dry wt	26	24	25	22
Total Recoverable Copper	mg/kg dry wt	53	58	74	43
Total Recoverable Lead	mg/kg dry wt	96	310	180	90
Total Recoverable Nickel	mg/kg dry wt	13	23	27	11
Total Recoverable Zinc	mg/kg dry wt	460	970	980	240

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
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	1-4

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

Testing was completed between 28-Nov-2025 and 01-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 4

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4049953	A2Pv1
Contact:	Nathan Cash	Date Received:	04-Dec-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	09-Dec-2025	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE 280252 AC	
		Client Reference:	Stage 2 Landfill Stockpile 1	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP1A-01 04-Dec-2025	S2-Landfill SP1A-02 04-Dec-2025	S2-Landfill SP1A-03 04-Dec-2025	S2-Landfill SP1B-01 04-Dec-2025	S2-Landfill SP1B-02 04-Dec-2025
Lab Number:	4049953.1	4049953.2	4049953.3	4049953.4	4049953.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight g	650.1	683.8	655.8	655.5	643.0
Dry Weight g	518.6	543.6	529.8	502.9	522.5
Moisture* %	20	20	19	23	19
Sample Fraction >10mm g dry wt	76.6	100.0	128.4	71.8	147.2
Sample Fraction <10mm to >2mm g dry wt	120.5	126.3	99.0	89.1	77.1
Sample Fraction <2mm g dry wt	320.8	316.4	301.6	341.3	297.4
<2mm Subsample Weight g dry wt	51.5	54.2	55.4	57.2	55.9
Weight of Asbestos in ACM (Non-Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2-Landfill SP1B-03 04-Dec-2025	S2-Landfill SP1C-01 04-Dec-2025	S2-Landfill SP1C-02 04-Dec-2025	S2-Landfill SP1C-03 04-Dec-2025	S2-Landfill SP1D-01 04-Dec-2025
Lab Number:	4049953.6	4049953.7	4049953.8	4049953.9	4049953.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.
Description of Asbestos Form	-	-	-	-	ACM debris and Loose fibres
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	0.197
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001



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Sample Type: Soil						
Sample Name:		S2-Landfill SP1B-03 04-Dec-2025	S2-Landfill SP1C-01 04-Dec-2025	S2-Landfill SP1C-02 04-Dec-2025	S2-Landfill SP1C-03 04-Dec-2025	S2-Landfill SP1D-01 04-Dec-2025
Lab Number:		4049953.6	4049953.7	4049953.8	4049953.9	4049953.10
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	0.197
As Received Weight	g	623.9	614.1	495.5	656.7	582.5
Dry Weight	g	480.8	466.0	382.3	532.0	479.4
Moisture*	%	23	24	23	19	18
Sample Fraction >10mm	g dry wt	70.2	42.5	22.6	113.9	33.3
Sample Fraction <10mm to >2mm	g dry wt	84.6	90.0	82.2	89.5	101.9
Sample Fraction <2mm	g dry wt	325.0	332.6	277.1	327.9	343.5
<2mm Subsample Weight	g dry wt	58.0	50.4	57.4	53.6	53.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	0.9432

Sample Name:		S2-Landfill SP1D-02 04-Dec-2025	S2-Landfill SP1D-03 04-Dec-2025	S2-Landfill SP1E-01 04-Dec-2025	S2-Landfill SP1E-02 04-Dec-2025	S2-Landfill SP1E-03 04-Dec-2025
Lab Number:		4049953.11	4049953.12	4049953.13	4049953.14	4049953.15
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	630.2	567.9	644.3	610.8	687.9
Dry Weight	g	509.4	454.0	502.0	499.3	568.7
Moisture*	%	19	20	22	18	17
Sample Fraction >10mm	g dry wt	92.9	90.1	91.5	121.7	126.4
Sample Fraction <10mm to >2mm	g dry wt	100.5	87.9	103.1	101.8	103.2
Sample Fraction <2mm	g dry wt	315.4	275.2	306.9	275.3	338.3
<2mm Subsample Weight	g dry wt	52.8	51.1	51.2	56.6	57.5
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2-Landfill SP1F-01 04-Dec-2025	S2-Landfill SP1F-02 04-Dec-2025	S2-Landfill SP1F-03 04-Dec-2025
Lab Number:		4049953.16	4049953.17	4049953.18
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
As Received Weight	g	623.4	615.0	642.7
Dry Weight	g	522.6	500.5	539.3

Sample Type: Soil				
Sample Name:		S2-Landfill SP1F-01 04-Dec-2025	S2-Landfill SP1F-02 04-Dec-2025	S2-Landfill SP1F-03 04-Dec-2025
Lab Number:		4049953.16	4049953.17	4049953.18
Moisture*	%	16	19	16
Sample Fraction >10mm	g dry wt	63.0	128.0	80.5
Sample Fraction <10mm to >2mm	g dry wt	103.7	90.5	112.7
Sample Fraction <2mm	g dry wt	355.1	281.0	344.7
<2mm Subsample Weight	g dry wt	51.1	53.2	52.7
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-18
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-18
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-18
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-18
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-18

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18

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

Testing was completed on 09-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

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Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4049954	SPv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	04-Dec-2025	
		Date Reported:	08-Dec-2025	
		Quote No:	142109	
		Order No:	773-CHCGE 280252 AC	
		Client Reference:	Stage 2 Landfill Stockpile 1	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP1A-01 04-Dec-2025	S2-Landfill SP1A-02 04-Dec-2025	S2-Landfill SP1A-03 04-Dec-2025	S2-Landfill SP1B-01 04-Dec-2025	S2-Landfill SP1B-02 04-Dec-2025
Lab Number:	4049954.1	4049954.2	4049954.3	4049954.4	4049954.5

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	14	20	23	19	16
Total Recoverable Cadmium	mg/kg dry wt	1.45	0.95	1.27	0.52	0.55
Total Recoverable Chromium	mg/kg dry wt	20	23	22	32	20
Total Recoverable Copper	mg/kg dry wt	65	72	68	72	39
Total Recoverable Lead	mg/kg dry wt	220	510	1,080	122	96
Total Recoverable Nickel	mg/kg dry wt	14	15	17	12	14
Total Recoverable Zinc	mg/kg dry wt	830	830	830	490	460

Sample Name:	S2-Landfill SP1B-03 04-Dec-2025	S2-Landfill SP1C-01 04-Dec-2025	S2-Landfill SP1C-02 04-Dec-2025	S2-Landfill SP1C-03 04-Dec-2025	S2-Landfill SP1D-01 04-Dec-2025
Lab Number:	4049954.6	4049954.7	4049954.8	4049954.9	4049954.10

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	14	13	12	14	11
Total Recoverable Cadmium	mg/kg dry wt	0.51	0.47	0.57	0.60	0.77
Total Recoverable Chromium	mg/kg dry wt	21	18	22	21	20
Total Recoverable Copper	mg/kg dry wt	35	33	44	48	44
Total Recoverable Lead	mg/kg dry wt	124	127	114	103	119
Total Recoverable Nickel	mg/kg dry wt	12	12	13	19	15
Total Recoverable Zinc	mg/kg dry wt	470	480	470	460	570

Sample Name:	S2-Landfill SP1D-02 04-Dec-2025	S2-Landfill SP1D-03 04-Dec-2025	S2-Landfill SP1E-01 04-Dec-2025	S2-Landfill SP1E-02 04-Dec-2025	S2-Landfill SP1E-03 04-Dec-2025
Lab Number:	4049954.11	4049954.12	4049954.13	4049954.14	4049954.15

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	12	19	15	17	18
Total Recoverable Cadmium	mg/kg dry wt	0.75	0.94	0.50	0.42	0.43
Total Recoverable Chromium	mg/kg dry wt	21	23	28	34	34
Total Recoverable Copper	mg/kg dry wt	69	49	46	44	41
Total Recoverable Lead	mg/kg dry wt	138	146	78	105	78
Total Recoverable Nickel	mg/kg dry wt	14	16	12	11	11
Total Recoverable Zinc	mg/kg dry wt	480	640	320	290	310



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Sample Type: Soil				
Sample Name:		S2-Landfill SP1F-01 04-Dec-2025	S2-Landfill SP1F-02 04-Dec-2025	S2-Landfill SP1F-03 04-Dec-2025
Lab Number:		4049954.16	4049954.17	4049954.18
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	8	14	8
Total Recoverable Cadmium	mg/kg dry wt	0.31	0.41	0.29
Total Recoverable Chromium	mg/kg dry wt	19	27	19
Total Recoverable Copper	mg/kg dry wt	25	46	24
Total Recoverable Lead	mg/kg dry wt	72	97	129
Total Recoverable Nickel	mg/kg dry wt	10	11	10
Total Recoverable Zinc	mg/kg dry wt	260	290	220

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
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	1-18

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

Testing was completed between 05-Dec-2025 and 08-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4056071	A2Pv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	11-Dec-2025	
		Date Reported:	16-Dec-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Landfill Stockpile 2	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP2A-01 11-Dec-2025	S2-Landfill SP2A-02 11-Dec-2025	S2-Landfill SP2A-03 11-Dec-2025	S2-Landfill SP2B-01 11-Dec-2025	S2-Landfill SP2B-02 11-Dec-2025
Lab Number:	4056071.1	4056071.2	4056071.3	4056071.4	4056071.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	707.3	753.4	683.4	694.9
Dry Weight	g	612.6	649.6	592.8	585.9
Moisture*	%	13	14	13	16
Sample Fraction >10mm	g dry wt	139.3	144.8	122.6	89.6
Sample Fraction <10mm to >2mm	g dry wt	188.8	133.6	145.6	126.5
Sample Fraction <2mm	g dry wt	283.6	369.4	322.9	368.5
<2mm Subsample Weight	g dry wt	55.6	56.5	51.7	56.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2-Landfill SP2B-03 11-Dec-2025	S2-Landfill SP2C-01 11-Dec-2025	S2-Landfill SP2C-02 11-Dec-2025	S2-Landfill SP2C-03 11-Dec-2025	S2-Landfill SP2D-01 11-Dec-2025
Lab Number:	4056071.6	4056071.7	4056071.8	4056071.9	4056071.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	724.4	791.9	767.3	669.4
Dry Weight	g	634.1	703.9	679.0	589.8



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Sample Type: Soil					
Sample Name:		S2-Landfill SP2B-03 11-Dec-2025	S2-Landfill SP2C-01 11-Dec-2025	S2-Landfill SP2C-02 11-Dec-2025	S2-Landfill SP2C-03 11-Dec-2025
Lab Number:		4056071.6	4056071.7	4056071.8	4056071.9
Moisture*	%	12	11	12	12
Sample Fraction >10mm	g dry wt	153.8	202.6	168.2	115.5
Sample Fraction <10mm to >2mm	g dry wt	123.3	152.7	187.4	153.3
Sample Fraction <2mm	g dry wt	357.0	347.8	322.2	320.4
<2mm Subsample Weight	g dry wt	55.7	53.5	58.0	54.9
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2-Landfill SP2D-02 11-Dec-2025	S2-Landfill SP2D-03 11-Dec-2025	S2-Landfill SP2E-01 11-Dec-2025	S2-Landfill SP2E-02 11-Dec-2025
Lab Number:		4056071.11	4056071.12	4056071.13	4056071.14
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	730.5	774.7	704.5	728.6
Dry Weight	g	626.4	682.5	620.8	630.2
Moisture*	%	14	12	12	14
Sample Fraction >10mm	g dry wt	139.6	235.8	119.8	141.5
Sample Fraction <10mm to >2mm	g dry wt	119.5	114.8	111.9	153.0
Sample Fraction <2mm	g dry wt	366.4	330.9	387.8	334.4
<2mm Subsample Weight	g dry wt	53.0	52.4	58.6	56.7
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2-Landfill SP2F-01 11-Dec-2025	S2-Landfill SP2F-02 11-Dec-2025	S2-Landfill SP2F-03 11-Dec-2025
Lab Number:		4056071.16	4056071.17	4056071.18
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
As Received Weight	g	687.1	649.4	697.2
Dry Weight	g	591.2	585.7	602.5
Moisture*	%	14	10	14
Sample Fraction >10mm	g dry wt	86.9	123.0	144.0
Sample Fraction <10mm to >2mm	g dry wt	164.4	133.8	176.6

Sample Type: Soil				
Sample Name:		S2-Landfill SP2F-01 11-Dec-2025	S2-Landfill SP2F-02 11-Dec-2025	S2-Landfill SP2F-03 11-Dec-2025
Lab Number:		4056071.16	4056071.17	4056071.18
Sample Fraction <2mm	g dry wt	339.0	328.2	281.1
<2mm Subsample Weight	g dry wt	58.5	52.9	54.7
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-18
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-18
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-18
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-18
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-18
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18

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

Testing was completed on 16-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Jessica Griffin BSc, BOHS W504
Team Leader - Asbestos

Certificate of Analysis

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Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4056070	SPv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	11-Dec-2025	
		Date Reported:	16-Dec-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Landfill Stockpile 2	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP2A-01 11-Dec-2025	S2-Landfill SP2A-02 11-Dec-2025	S2-Landfill SP2A-03 11-Dec-2025	S2-Landfill SP2B-01 11-Dec-2025	S2-Landfill SP2B-02 11-Dec-2025
Lab Number:	4056070.1	4056070.2	4056070.3	4056070.4	4056070.5

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	6	5	7	4	7
Total Recoverable Cadmium	mg/kg dry wt	0.12	0.11	0.13	0.12	0.14
Total Recoverable Chromium	mg/kg dry wt	14	13	15	14	14
Total Recoverable Copper	mg/kg dry wt	10	9	11	9	10
Total Recoverable Lead	mg/kg dry wt	19.4	18.1	19.7	21	19.3
Total Recoverable Nickel	mg/kg dry wt	10	10	11	10	9
Total Recoverable Zinc	mg/kg dry wt	161	109	175	111	210

Sample Name:	S2-Landfill SP2B-03 11-Dec-2025	S2-Landfill SP2C-01 11-Dec-2025	S2-Landfill SP2C-02 11-Dec-2025	S2-Landfill SP2C-03 11-Dec-2025	S2-Landfill SP2D-01 11-Dec-2025
Lab Number:	4056070.6	4056070.7	4056070.8	4056070.9	4056070.10

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	5	6	6	8	5
Total Recoverable Cadmium	mg/kg dry wt	0.14	0.12	0.13	0.16	0.12
Total Recoverable Chromium	mg/kg dry wt	14	14	15	15	14
Total Recoverable Copper	mg/kg dry wt	10	10	10	11	10
Total Recoverable Lead	mg/kg dry wt	22	18.5	19.1	18.6	19.8
Total Recoverable Nickel	mg/kg dry wt	11	10	11	10	11
Total Recoverable Zinc	mg/kg dry wt	119	155	166	182	133

Sample Name:	S2-Landfill SP2D-02 11-Dec-2025	S2-Landfill SP2D-03 11-Dec-2025	S2-Landfill SP2E-01 11-Dec-2025	S2-Landfill SP2E-02 11-Dec-2025	S2-Landfill SP2E-03 11-Dec-2025
Lab Number:	4056070.11	4056070.12	4056070.13	4056070.14	4056070.15

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	4	6	5	6	6
Total Recoverable Cadmium	mg/kg dry wt	0.13	0.11	0.13	0.14	0.12
Total Recoverable Chromium	mg/kg dry wt	13	14	14	14	15
Total Recoverable Copper	mg/kg dry wt	9	10	12	10	10
Total Recoverable Lead	mg/kg dry wt	22	20	25	19.0	22
Total Recoverable Nickel	mg/kg dry wt	9	10	10	10	10
Total Recoverable Zinc	mg/kg dry wt	119	130	136	161	136



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:		S2-Landfill SP2F-01 11-Dec-2025	S2-Landfill SP2F-02 11-Dec-2025	S2-Landfill SP2F-03 11-Dec-2025
Lab Number:		4056070.16	4056070.17	4056070.18
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	6	6	8
Total Recoverable Cadmium	mg/kg dry wt	0.12	0.13	0.13
Total Recoverable Chromium	mg/kg dry wt	14	14	14
Total Recoverable Copper	mg/kg dry wt	10	10	11
Total Recoverable Lead	mg/kg dry wt	18.2	19.0	19.3
Total Recoverable Nickel	mg/kg dry wt	10	10	10
Total Recoverable Zinc	mg/kg dry wt	133	230	179

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
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	1-18

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

Testing was completed between 12-Dec-2025 and 16-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4091302	SPv1
Contact:	Tim Farrant	Date Received:	04-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	13-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Landfill Stockpile 4	
		Submitted By:	Tim Farrant	

Sample Type: Soil

Sample Name:	S2-Landfill SP4A-01 02-Feb-2026	S2-Landfill SP4A-02 04-Feb-2026	S2-Landfill SP4A-03 04-Feb-2026	S2-Landfill SP4B-01 02-Feb-2026	S2-Landfill SP4B-02 04-Feb-2026
Lab Number:	4091302.1	4091302.2	4091302.3	4091302.4	4091302.5

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	13	12	9	10	10
Total Recoverable Cadmium	mg/kg dry wt	0.43	0.55	0.31	0.36	0.37
Total Recoverable Chromium	mg/kg dry wt	19	21	18	19	18
Total Recoverable Copper	mg/kg dry wt	31	39	28	27	27
Total Recoverable Lead	mg/kg dry wt	102	125	67	76	70
Total Recoverable Nickel	mg/kg dry wt	13	13	11	13	12
Total Recoverable Zinc	mg/kg dry wt	370	430	260	770	290

Sample Name:	S2-Landfill SP4B-03 04-Feb-2026	S2-Landfill SP4C-01 02-Feb-2026	S2-Landfill SP4C-02 04-Feb-2026	S2-Landfill SP4C-03 04-Feb-2026	S2-Landfill SP4D-01 02-Feb-2026
Lab Number:	4091302.6	4091302.7	4091302.8	4091302.9	4091302.10

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	10	10	9	8	12
Total Recoverable Cadmium	mg/kg dry wt	0.37	0.29	0.32	0.43	0.56
Total Recoverable Chromium	mg/kg dry wt	19	18	17	17	18
Total Recoverable Copper	mg/kg dry wt	29	23	27	27	35
Total Recoverable Lead	mg/kg dry wt	70	64	63	67	103
Total Recoverable Nickel	mg/kg dry wt	12	12	12	11	21
Total Recoverable Zinc	mg/kg dry wt	310	280	270	270	500

Sample Name:	S2-Landfill SP4D-02 04-Feb-2026	S2-Landfill SP4D-03 04-Feb-2026	S2-Landfill SP4E-01 02-Feb-2026	S2-Landfill SP4E-02 04-Feb-2026	S2-Landfill SP4E-03 04-Feb-2026
Lab Number:	4091302.11	4091302.12	4091302.13	4091302.14	4091302.15

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	11	10	9	9	9
Total Recoverable Cadmium	mg/kg dry wt	0.30	0.31	0.30	0.23	0.49
Total Recoverable Chromium	mg/kg dry wt	18	18	16	16	16
Total Recoverable Copper	mg/kg dry wt	26	27	22	30	34
Total Recoverable Lead	mg/kg dry wt	62	121	53	54	61
Total Recoverable Nickel	mg/kg dry wt	11	11	11	11	11
Total Recoverable Zinc	mg/kg dry wt	270	260	250	240	330



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:		S2-Landfill SP4F-01 02-Feb-2026	S2-Landfill SP4F-02 04-Feb-2026	S2-Landfill SP4F-03 04-Feb-2026	S2-Landfill SP4G-01 02-Feb-2026	S2-Landfill SP4G-02 04-Feb-2026
Lab Number:		4091302.16	4091302.17	4091302.18	4091302.19	4091302.20
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	9	8	9	8	9
Total Recoverable Cadmium	mg/kg dry wt	0.33	0.22	0.32	0.17	0.32
Total Recoverable Chromium	mg/kg dry wt	18	18	18	15	16
Total Recoverable Copper	mg/kg dry wt	28	20	29	18	26
Total Recoverable Lead	mg/kg dry wt	67	43	65	41	310
Total Recoverable Nickel	mg/kg dry wt	12	11	11	11	11
Total Recoverable Zinc	mg/kg dry wt	310	200	290	199	270

Sample Name:		S2-Landfill SP4G-03 04-Feb-2026	S2-Landfill SP4H-01 02-Feb-2026	S2-Landfill SP4H-02 04-Feb-2026	S2-Landfill SP4H-03 04-Feb-2026
Lab Number:		4091302.21	4091302.22	4091302.23	4091302.24
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	8	8	8	7
Total Recoverable Cadmium	mg/kg dry wt	0.17	0.32	0.25	0.20
Total Recoverable Chromium	mg/kg dry wt	15	16	17	15
Total Recoverable Copper	mg/kg dry wt	19	23	22	16
Total Recoverable Lead	mg/kg dry wt	36	64	66	37
Total Recoverable Nickel	mg/kg dry wt	10	11	12	11
Total Recoverable Zinc	mg/kg dry wt	179	240	240	250

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
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	1-24

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

Testing was completed between 05-Feb-2026 and 11-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Ara Heron BSc (Tech)
Client Services Manager - Environmental

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Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4091312	A2Pv1
Contact:	Tim Farrant	Date Received:	04-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	10-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Landfill Stockpile 4	
		Submitted By:	Tim Farrant	

Sample Type: Soil

Sample Name:	S2-Landfill SP4A-01 02-Feb-2026	S2-Landfill SP4A-02 04-Feb-2026	S2-Landfill SP4A-03 04-Feb-2026	S2-Landfill SP4B-01 02-Feb-2026	S2-Landfill SP4B-02 04-Feb-2026
Lab Number:	4091312.1	4091312.2	4091312.3	4091312.4	4091312.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight g	622.2	601.2	673.1	746.7	710.2
Dry Weight g	506.1	472.0	559.3	630.0	552.1
Moisture* %	19	21	17	16	22
Sample Fraction >10mm g dry wt	36.1	73.3	128.6	161.3	67.5
Sample Fraction <10mm to >2mm g dry wt	107.6	128.4	117.6	120.3	148.6
Sample Fraction <2mm g dry wt	361.0	268.7	312.2	347.2	334.6
<2mm Subsample Weight g dry wt	54.5	56.1	52.1	54.2	50.8
Weight of Asbestos in ACM (Non-Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2-Landfill SP4B-03 04-Feb-2026	S2-Landfill SP4C-01 02-Feb-2026	S2-Landfill SP4C-02 04-Feb-2026	S2-Landfill SP4C-03 04-Feb-2026	S2-Landfill SP4D-01 02-Feb-2026
Lab Number:	4091312.6	4091312.7	4091312.8	4091312.9	4091312.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight g	676.1	648.9	738.6	718.1	715.3
Dry Weight g	547.3	567.6	575.8	559.0	592.4



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Sample Type: Soil					
Sample Name:	S2-Landfill SP4B-03 04-Feb-2026	S2-Landfill SP4C-01 02-Feb-2026	S2-Landfill SP4C-02 04-Feb-2026	S2-Landfill SP4C-03 04-Feb-2026	S2-Landfill SP4D-01 02-Feb-2026
Lab Number:	4091312.6	4091312.7	4091312.8	4091312.9	4091312.10
Moisture* %	19	13	22	22	17
Sample Fraction >10mm g dry wt	109.4	154.7	67.6	49.6	131.1
Sample Fraction <10mm to >2mm g dry wt	117.5	126.1	132.3	138.8	104.5
Sample Fraction <2mm g dry wt	319.5	285.7	374.4	369.6	356.0
<2mm Subsample Weight g dry wt	57.3	52.8	52.6	51.9	52.1
Weight of Asbestos in ACM (Non-Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2-Landfill SP4D-02 04-Feb-2026	S2-Landfill SP4D-03 04-Feb-2026	S2-Landfill SP4E-01 02-Feb-2026	S2-Landfill SP4E-02 04-Feb-2026	S2-Landfill SP4E-03 04-Feb-2026
Lab Number:	4091312.11	4091312.12	4091312.13	4091312.14	4091312.15
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight g	499.5	775.8	729.9	697.9	718.7
Dry Weight g	392.2	612.0	643.4	542.6	553.0
Moisture* %	21	21	12	22	23
Sample Fraction >10mm g dry wt	59.5	118.7	88.3	121.8	106.2
Sample Fraction <10mm to >2mm g dry wt	104.6	149.5	143.0	135.3	128.4
Sample Fraction <2mm g dry wt	226.6	342.6	410.8	283.7	317.2
<2mm Subsample Weight g dry wt	52.2	58.9	55.4	54.0	58.6
Weight of Asbestos in ACM (Non-Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2-Landfill SP4F-01 02-Feb-2026	S2-Landfill SP4F-02 04-Feb-2026	S2-Landfill SP4F-03 04-Feb-2026	S2-Landfill SP4G-01 02-Feb-2026	S2-Landfill SP4G-02 04-Feb-2026
Lab Number:	4091312.16	4091312.17	4091312.18	4091312.19	4091312.20
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight g	714.3	907.3	812.5	612.6	618.6
Dry Weight g	611.0	715.4	620.6	513.7	472.6
Moisture* %	14	21	24	16	24
Sample Fraction >10mm g dry wt	174.2	131.5	70.8	85.0	34.4

Sample Type: Soil						
Sample Name:		S2-Landfill SP4F-01 02-Feb-2026	S2-Landfill SP4F-02 04-Feb-2026	S2-Landfill SP4F-03 04-Feb-2026	S2-Landfill SP4G-01 02-Feb-2026	S2-Landfill SP4G-02 04-Feb-2026
Lab Number:		4091312.16	4091312.17	4091312.18	4091312.19	4091312.20
Sample Fraction <10mm to >2mm	g dry wt	107.6	156.2	195.7	114.0	127.9
Sample Fraction <2mm	g dry wt	327.3	426.5	353.2	313.7	309.2
<2mm Subsample Weight	g dry wt	53.2	52.1	51.0	58.6	54.7
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2-Landfill SP4G-03 04-Feb-2026	S2-Landfill SP4H-01 02-Feb-2026	S2-Landfill SP4H-02 04-Feb-2026	S2-Landfill SP4H-03 04-Feb-2026
Lab Number:		4091312.21	4091312.22	4091312.23	4091312.24
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	813.0	643.3	832.6	874.8
Dry Weight	g	631.4	559.9	658.4	687.0
Moisture*	%	22	13	21	21
Sample Fraction >10mm	g dry wt	133.3	96.7	124.0	140.1
Sample Fraction <10mm to >2mm	g dry wt	124.1	117.7	143.8	141.8
Sample Fraction <2mm	g dry wt	372.6	344.3	389.2	404.1
<2mm Subsample Weight	g dry wt	56.2	53.8	53.3	57.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-24
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-24
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-24
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24

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

Testing was completed between 09-Feb-2026 and 10-Feb-2026. 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.



Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 4

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4091313	A2Pv1
Contact:	Tim Farrant	Date Received:	04-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	09-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2- Landfill Stockpile 5	
		Submitted By:	Tim Farrant	

Sample Type: Soil

Sample Name:	S2- Landfill SP5A-01 04-Feb-2026	S2- Landfill SP5A-02 04-Feb-2026	S2- Landfill SP5A-03 04-Feb-2026	S2- Landfill SP5B-01 04-Feb-2026	S2- Landfill SP5B-02 04-Feb-2026
Lab Number:	4091313.1	4091313.2	4091313.3	4091313.4	4091313.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 703.9	g 794.6	g 759.9	g 727.6	g 757.0
Dry Weight	g 557.8	g 621.0	g 594.4	g 577.9	g 606.4
Moisture*	% 21	% 22	% 22	% 21	% 20
Sample Fraction >10mm	g dry wt 112.2	g dry wt 104.3	g dry wt 101.8	g dry wt 127.4	g dry wt 135.0
Sample Fraction <10mm to >2mm	g dry wt 115.0	g dry wt 119.6	g dry wt 135.3	g dry wt 142.9	g dry wt 140.8
Sample Fraction <2mm	g dry wt 329.1	g dry wt 394.6	g dry wt 355.2	g dry wt 307.1	g dry wt 328.5
<2mm Subsample Weight	g dry wt 54.8	g dry wt 57.2	g dry wt 53.2	g dry wt 56.2	g dry wt 50.5
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2- Landfill SP5B-03 04-Feb-2026	S2- Landfill SP5C-01 04-Feb-2026	S2- Landfill SP5C-02 04-Feb-2026	S2- Landfill SP5C-03 04-Feb-2026	S2- Landfill SP5D-01 04-Feb-2026
Lab Number:	4091313.6	4091313.7	4091313.8	4091313.9	4091313.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 825.9	g 747.9	g 769.2	g 838.6	g 736.4
Dry Weight	g 636.3	g 593.4	g 606.6	g 660.8	g 567.5



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Sample Type: Soil					
Sample Name:		S2- Landfill SP5B-03 04-Feb-2026	S2- Landfill SP5C-01 04-Feb-2026	S2- Landfill SP5C-02 04-Feb-2026	S2- Landfill SP5C-03 04-Feb-2026
Lab Number:		4091313.6	4091313.7	4091313.8	4091313.9
Moisture*	%	23	21	21	21
Sample Fraction >10mm	g dry wt	63.2	123.8	116.6	151.1
Sample Fraction <10mm to >2mm	g dry wt	180.2	138.4	166.5	152.1
Sample Fraction <2mm	g dry wt	391.2	329.8	322.3	356.0
<2mm Subsample Weight	g dry wt	54.3	51.8	54.8	50.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2- Landfill SP5D-02 04-Feb-2026	S2- Landfill SP5D-03 04-Feb-2026	S2- Landfill SP5E-01 04-Feb-2026	S2- Landfill SP5E-02 04-Feb-2026
Lab Number:		4091313.11	4091313.12	4091313.13	4091313.14
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	779.4	793.4	753.0	845.6
Dry Weight	g	611.5	624.4	591.2	683.4
Moisture*	%	22	21	21	19
Sample Fraction >10mm	g dry wt	118.9	167.9	83.9	203.9
Sample Fraction <10mm to >2mm	g dry wt	119.8	106.5	135.4	137.5
Sample Fraction <2mm	g dry wt	370.1	349.5	370.2	339.4
<2mm Subsample Weight	g dry wt	55.4	54.9	55.8	52.5
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2- Landfill SP5F-01 04-Feb-2026	S2- Landfill SP5F-02 04-Feb-2026	S2- Landfill SP5F-03 04-Feb-2026
Lab Number:		4091313.16	4091313.17	4091313.18
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
As Received Weight	g	716.4	762.7	847.4
Dry Weight	g	563.1	596.8	670.2
Moisture*	%	21	22	21
Sample Fraction >10mm	g dry wt	47.2	80.4	128.6
Sample Fraction <10mm to >2mm	g dry wt	150.8	141.1	195.5

Sample Type: Soil				
Sample Name:		S2- Landfill SP5F-01 04-Feb-2026	S2- Landfill SP5F-02 04-Feb-2026	S2- Landfill SP5F-03 04-Feb-2026
Lab Number:		4091313.16	4091313.17	4091313.18
Sample Fraction <2mm	g dry wt	363.4	374.0	345.0
<2mm Subsample Weight	g dry wt	50.5	51.9	56.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-18
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-18
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-18
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-18
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-18
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-18
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-18
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-18

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

Testing was completed on 09-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4091301	SPv1
Contact:	Tim Farrant	Date Received:	04-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	11-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Landfill Stockpile 5	
		Submitted By:	Tim Farrant	

Sample Type: Soil

Sample Name:	S2-Landfill SP5A-01 04-Feb-2026	S2-Landfill SP5A-02 04-Feb-2026	S2-Landfill SP5A-03 04-Feb-2026	S2-Landfill SP5B-01 04-Feb-2026	S2-Landfill SP5B-02 04-Feb-2026
Lab Number:	4091301.1	4091301.2	4091301.3	4091301.4	4091301.5

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	7	8	8	8	8
Total Recoverable Cadmium	mg/kg dry wt	0.20	0.27	0.21	0.20	0.22
Total Recoverable Chromium	mg/kg dry wt	17	18	18	17	17
Total Recoverable Copper	mg/kg dry wt	16	22	20	23	24
Total Recoverable Lead	mg/kg dry wt	46	57	43	55	44
Total Recoverable Nickel	mg/kg dry wt	11	13	11	11	11
Total Recoverable Zinc	mg/kg dry wt	171	250	199	210	230

Sample Name:	S2-Landfill SP5B-03 04-Feb-2026	S2-Landfill SP5C-01 04-Feb-2026	S2-Landfill SP5C-02 04-Feb-2026	S2-Landfill SP5C-03 04-Feb-2026	S2-Landfill SP5D-01 04-Feb-2026
Lab Number:	4091301.6	4091301.7	4091301.8	4091301.9	4091301.10

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	9	8	11	8
Total Recoverable Cadmium	mg/kg dry wt	0.20	0.20	0.20	0.21	0.20
Total Recoverable Chromium	mg/kg dry wt	16	17	16	20	16
Total Recoverable Copper	mg/kg dry wt	23	21	23	30	33
Total Recoverable Lead	mg/kg dry wt	52	53	62	53	56
Total Recoverable Nickel	mg/kg dry wt	11	11	11	11	11
Total Recoverable Zinc	mg/kg dry wt	210	210	260	280	220

Sample Name:	S2-Landfill SP5D-02 04-Feb-2026	S2-Landfill SP5D-03 04-Feb-2026	S2-Landfill SP5E-01 04-Feb-2026	S2-Landfill SP5E-02 04-Feb-2026	S2-Landfill SP5E-03 04-Feb-2026
Lab Number:	4091301.11	4091301.12	4091301.13	4091301.14	4091301.15

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	9	9	10	10
Total Recoverable Cadmium	mg/kg dry wt	0.23	0.27	0.25	0.44	0.27
Total Recoverable Chromium	mg/kg dry wt	16	16	16	19	16
Total Recoverable Copper	mg/kg dry wt	31	26	21	31	50
Total Recoverable Lead	mg/kg dry wt	62	49	53	82	64
Total Recoverable Nickel	mg/kg dry wt	10	10	11	12	10
Total Recoverable Zinc	mg/kg dry wt	250	230	250	380	260



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Sample Type: Soil				
Sample Name:		S2-Landfill SP5F-01 04-Feb-2026	S2-Landfill SP5F-02 04-Feb-2026	S2-Landfill SP5F-03 04-Feb-2026
Lab Number:		4091301.16	4091301.17	4091301.18
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	8	12	8
Total Recoverable Cadmium	mg/kg dry wt	0.22	0.49	0.20
Total Recoverable Chromium	mg/kg dry wt	17	19	16
Total Recoverable Copper	mg/kg dry wt	25	35	21
Total Recoverable Lead	mg/kg dry wt	63	108	53
Total Recoverable Nickel	mg/kg dry wt	11	13	10
Total Recoverable Zinc	mg/kg dry wt	230	380	200

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
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	1-18

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

Testing was completed between 05-Feb-2026 and 11-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Ara Heron BSc (Tech)
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4107093	SPv1
Contact:	Nathan Cash	Date Received:	20-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	25-Feb-2026	
	PO Box 13444	Quote No:		
	Tauranga Central	Order No:	CHC 144390	
	Tauranga 3141	Client Reference:	CHC2026-0003 Landfill Stockpile 5	
		Submitted By:	Chris Thompson	

Sample Type: Soil

Sample Name:	S2 - Landfill SP5F - 01 19-Feb-2026	S2 - Landfill SP5F - 02 19-Feb-2026	S2 - Landfill SP5F - 03 19-Feb-2026	S2 - Landfill SP5G - 01 19-Feb-2026	S2 - Landfill SP5G - 03 19-Feb-2026
Lab Number:	4107093.1	4107093.2	4107093.3	4107093.4	4107093.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	9	9	8	8
Total Recoverable Cadmium	mg/kg dry wt	0.22	0.35	0.20	0.20
Total Recoverable Chromium	mg/kg dry wt	17	17	16	18
Total Recoverable Copper	mg/kg dry wt	25	33	25	26
Total Recoverable Lead	mg/kg dry wt	53	79	55	52
Total Recoverable Nickel	mg/kg dry wt	11	12	11	11
Total Recoverable Zinc	mg/kg dry wt	240	300	240	220

Sample Name:		S2 - Landfill SP5G - 02 19-Feb-2026
Lab Number:		4107093.6
Heavy Metals, Screen Level		
Total Recoverable Arsenic	mg/kg dry wt	9
Total Recoverable Cadmium	mg/kg dry wt	0.25
Total Recoverable Chromium	mg/kg dry wt	17
Total Recoverable Copper	mg/kg dry wt	36
Total Recoverable Lead	mg/kg dry wt	55
Total Recoverable Nickel	mg/kg dry wt	11
Total Recoverable Zinc	mg/kg dry wt	270

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-6
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-6



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

Testing was completed between 23-Feb-2026 and 25-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4107100	A2Pv1
Contact:	Nathan Cash	Date Received:	20-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	25-Feb-2026	
	PO Box 13444	Quote No:		
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	CHC2026-0003 Landfill Stockpile 5	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP5F - 01 19-Feb-2026	S2 - Landfill SP5F - 02 19-Feb-2026	S2 - Landfill SP5F - 03 19-Feb-2026	S2 - Landfill SP5G - 01 19-Feb-2026	S2 - Landfill SP5G - 02 19-Feb-2026
Lab Number:	4107100.1	4107100.2	4107100.3	4107100.4	4107100.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	618.4	677.5	721.6	746.0
Dry Weight	g	496.8	536.7	599.2	595.7
Moisture*	%	20	21	17	20
Sample Fraction >10mm	g dry wt	56.4	81.6	144.6	76.4
Sample Fraction <10mm to >2mm	g dry wt	195.1	200.4	204.3	242.4
Sample Fraction <2mm	g dry wt	244.4	253.7	248.8	275.4
<2mm Subsample Weight	g dry wt	54.7	55.2	60.0	51.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2 - Landfill SP5G - 03 19-Feb-2026
Lab Number:	4107100.6
Asbestos Presence / Absence	Asbestos NOT detected.
Description of Asbestos Form	-
Asbestos in ACM as % of Total Sample*	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001
As Received Weight	g
Dry Weight	g
Moisture*	%



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Sample Type: Soil			
Sample Name:		S2 - Landfill SP5G- 03 19-Feb-2026	
Lab Number:		4107100.6	
Sample Fraction >10mm	g dry wt	73.1	
Sample Fraction <10mm to >2mm	g dry wt	211.0	
Sample Fraction <2mm	g dry wt	251.8	
<2mm Subsample Weight	g dry wt	51.8	
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-6
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-6
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-6
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-6
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-6
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6

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

Testing was completed between 24-Feb-2026 and 25-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4107091	A2Pv1
Contact:	Nathan Cash	Date Received:	20-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	26-Feb-2026	
	PO Box 13444	Quote No:		
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	CHC2026-003 Landfill Stockpile 6	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP6A - 01 20-Feb-2026	S2 - Landfill SP6A - 02 20-Feb-2026	S2 - Landfill SP6A - 03 20-Feb-2026	S2 - Landfill SP6B - 01 20-Feb-2026	S2 - Landfill SP6B - 02 20-Feb-2026
Lab Number:	4107091.1	4107091.2	4107091.3	4107091.4	4107091.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 609.1	g 589.6	g 577.9	g 621.5	g 613.7
Dry Weight	g 491.6	g 455.8	g 455.0	g 488.5	g 491.4
Moisture*	% 19	% 23	% 21	% 21	% 20
Sample Fraction >10mm	g dry wt 11.7	g dry wt 68.8	g dry wt 78.5	g dry wt 88.8	g dry wt 137.4
Sample Fraction <10mm to >2mm	g dry wt 61.8	g dry wt 93.9	g dry wt 107.1	g dry wt 110.3	g dry wt 131.4
Sample Fraction <2mm	g dry wt 418.0	g dry wt 292.1	g dry wt 268.5	g dry wt 289.2	g dry wt 222.3
<2mm Subsample Weight	g dry wt 56.7	g dry wt 56.1	g dry wt 56.2	g dry wt 51.8	g dry wt 58.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2 - Landfill SP6B - 03 20-Feb-2026	S2 - Landfill SP6C - 01 20-Feb-2026	S2 - Landfill SP6C - 02 20-Feb-2026	S2 - Landfill SP6C - 03 20-Feb-2026	S2 - Landfill SP6D - 01 20-Feb-2026
Lab Number:	4107091.6	4107091.7	4107091.8	4107091.9	4107091.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 832.0	g 636.8	g 635.4	g 782.1	g 703.5
Dry Weight	g 650.7	g 515.6	g 512.3	g 597.5	g 567.3



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:		S2 - Landfill SP6B - 03 20-Feb-2026	S2 - Landfill SP6C - 01 20-Feb-2026	S2 - Landfill SP6C - 02 20-Feb-2026	S2 - Landfill SP6C - 03 20-Feb-2026	S2 - Landfill SP6D - 01 20-Feb-2026
Lab Number:		4107091.6	4107091.7	4107091.8	4107091.9	4107091.10
Moisture*	%	22	19	19	24	19
Sample Fraction >10mm		g dry wt	219.1	88.3	169.0	115.6
Sample Fraction <10mm to >2mm		g dry wt	114.8	148.2	161.5	140.4
Sample Fraction <2mm		g dry wt	315.5	279.0	179.8	341.5
<2mm Subsample Weight		g dry wt	51.6	56.0	52.2	56.4
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Sample Name:		S2 - Landfill SP6D - 02 20-Feb-2026	S2 - Landfill SP6D - 03 20-Feb-2026	S2 - Landfill SP6E - 01 20-Feb-2026	S2 - Landfill SP6E - 02 20-Feb-2026	S2 - Landfill SP6E - 03 20-Feb-2026
Lab Number:		4107091.11	4107091.12	4107091.13	4107091.14	4107091.15
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	Loose fibres	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	686.2	978.5	739.6	602.5
Dry Weight		g	554.7	761.5	584.0	477.7
Moisture*		%	19	22	21	19
Sample Fraction >10mm		g dry wt	87.8	150.4	90.2	61.9
Sample Fraction <10mm to >2mm		g dry wt	123.8	147.3	137.7	110.1
Sample Fraction <2mm		g dry wt	341.6	460.7	355.0	304.5
<2mm Subsample Weight		g dry wt	52.9	53.2	50.4	56.3
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	0.00211	< 0.00001
Sample Name:		S2 - Landfill SP6F - 01 20-Feb-2026	S2 - Landfill SP6F - 02 20-Feb-2026	S2 - Landfill SP6F - 03 20-Feb-2026	S2 - Landfill SP6G - 01 20-Feb-2026	S2 - Landfill SP6G - 02 20-Feb-2026
Lab Number:		4107091.16	4107091.17	4107091.18	4107091.19	4107091.20
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	628.8	602.2	681.8	763.8
Dry Weight		g	504.6	487.8	555.0	624.4
Moisture*		%	20	19	19	22

Sample Type: Soil						
Sample Name:		S2 - Landfill SP6F - 01 20-Feb-2026	S2 - Landfill SP6F - 02 20-Feb-2026	S2 - Landfill SP6F - 03 20-Feb-2026	S2 - Landfill SP6G - 01 20-Feb-2026	S2 - Landfill SP6G - 02 20-Feb-2026
Lab Number:		4107091.16	4107091.17	4107091.18	4107091.19	4107091.20
Sample Fraction >10mm	g dry wt	126.7	37.4	101.2	143.3	67.7
Sample Fraction <10mm to >2mm	g dry wt	147.7	130.8	124.9	152.9	152.2
Sample Fraction <2mm	g dry wt	229.3	317.3	328.8	327.2	342.1
<2mm Subsample Weight	g dry wt	55.2	54.2	57.5	52.6	52.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP6G - 03 20-Feb-2026	S2 - Landfill SP6H - 01 20-Feb-2026	S2 - Landfill SP6H - 02 20-Feb-2026	S2 - Landfill SP6H - 03 20-Feb-2026	S2 - Landfill SP6I - 01 20-Feb-2026
Lab Number:		4107091.21	4107091.22	4107091.23	4107091.24	4107091.25
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	744.5	633.2	620.3	725.6	596.5
Dry Weight	g	609.3	514.3	498.1	600.9	482.8
Moisture*	%	18	19	20	17	19
Sample Fraction >10mm	g dry wt	110.2	69.4	84.8	100.0	26.3
Sample Fraction <10mm to >2mm	g dry wt	135.6	116.7	123.3	156.1	114.9
Sample Fraction <2mm	g dry wt	363.1	327.7	289.2	343.3	341.2
<2mm Subsample Weight	g dry wt	52.0	52.6	52.6	53.2	56.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP6I - 02 20-Feb-2026	S2 - Landfill SP6I - 03 20-Feb-2026	S2 - Landfill SP6J - 01 20-Feb-2026	S2 - Landfill SP6J - 02 20-Feb-2026	S2 - Landfill SP6J - 03 20-Feb-2026
Lab Number:		4107091.26	4107091.27	4107091.28	4107091.29	4107091.30
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	667.8	595.8	693.0	586.0	725.2
Dry Weight	g	559.5	491.3	566.9	480.8	570.9
Moisture*	%	16	18	18	18	21
Sample Fraction >10mm	g dry wt	101.8	63.7	96.0	103.9	95.3
Sample Fraction <10mm to >2mm	g dry wt	96.1	143.1	121.6	123.2	154.3
Sample Fraction <2mm	g dry wt	360.6	283.6	348.4	252.6	319.5

Sample Type: Soil						
Sample Name:		S2 - Landfill SP6I - 02 20-Feb-2026	S2 - Landfill SP6I - 03 20-Feb-2026	S2 - Landfill SP6J - 01 20-Feb-2026	S2 - Landfill SP6J - 02 20-Feb-2026	S2 - Landfill SP6J - 03 20-Feb-2026
Lab Number:		4107091.26	4107091.27	4107091.28	4107091.29	4107091.30
<2mm Subsample Weight	g dry wt	53.4	52.9	53.0	55.0	54.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP6K - 01 20-Feb-2026	S2 - Landfill SP6K - 02 20-Feb-2026	S2 - Landfill SP6K - 03 20-Feb-2026
Lab Number:		4107091.31	4107091.32	4107091.33
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
As Received Weight	g	603.9	661.6	670.6
Dry Weight	g	499.1	529.8	548.9
Moisture*	%	17	20	18
Sample Fraction >10mm		g dry wt	82.8	75.8
Sample Fraction <10mm to >2mm		g dry wt	137.2	147.6
Sample Fraction <2mm		g dry wt	278.2	305.3
<2mm Subsample Weight		g dry wt	55.2	53.6
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-33
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-33
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-33
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-33
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-33
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-33
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-33
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-33
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-33
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-33
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-33
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-33
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-33
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-33
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-33

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

Testing was completed between 25-Feb-2026 and 26-Feb-2026. 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.



Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4107090	SPv1
Contact:	Nathan Cash	Date Received:	20-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	25-Feb-2026	
	PO Box 13444	Quote No:		
	Tauranga Central	Order No:	CHC 144390	
	Tauranga 3141	Client Reference:	CHC2026-0003 Landfill Stockpile 6	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP6A - 01 20-Feb-2026	S2 - Landfill SP6A - 02 20-Feb-2026	S2 - Landfill SP6A - 03 20-Feb-2026	S2 - Landfill SP6B - 01 20-Feb-2026	S2 - Landfill SP6B - 02 20-Feb-2026
Lab Number:	4107090.1	4107090.2	4107090.3	4107090.4	4107090.5

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	15	12	8	11	8
Total Recoverable Cadmium	mg/kg dry wt	0.27	0.60	0.21	0.32	0.22
Total Recoverable Chromium	mg/kg dry wt	19	24	17	27	17
Total Recoverable Copper	mg/kg dry wt	24	36	22	23	27
Total Recoverable Lead	mg/kg dry wt	35	86	44	61	104
Total Recoverable Nickel	mg/kg dry wt	11	13	12	14	11
Total Recoverable Zinc	mg/kg dry wt	250	390	230	240	320

Sample Name:	S2 - Landfill SP6B - 03 20-Feb-2026	S2 - Landfill SP6C - 01 20-Feb-2026	S2 - Landfill SP6C - 02 20-Feb-2026	S2 - Landfill SP6C - 03 20-Feb-2026	S2 - Landfill SP6D - 01 20-Feb-2026
Lab Number:	4107090.6	4107090.7	4107090.8	4107090.9	4107090.10

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	8	13	9	7	11
Total Recoverable Cadmium	mg/kg dry wt	0.20	0.39	0.27	0.15	0.34
Total Recoverable Chromium	mg/kg dry wt	18	24	25	16	22
Total Recoverable Copper	mg/kg dry wt	27	32	37	16	27
Total Recoverable Lead	mg/kg dry wt	47	71	72	31	64
Total Recoverable Nickel	mg/kg dry wt	11	12	13	11	12
Total Recoverable Zinc	mg/kg dry wt	210	350	320	176	280

Sample Name:	S2 - Landfill SP6D - 02 20-Feb-2026	S2 - Landfill SP6D - 03 20-Feb-2026	S2 - Landfill SP6E - 01 20-Feb-2026	S2 - Landfill SP6E - 02 20-Feb-2026	S2 - Landfill SP6E - 03 20-Feb-2026
Lab Number:	4107090.11	4107090.12	4107090.13	4107090.14	4107090.15

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	12	8	8	9	8
Total Recoverable Cadmium	mg/kg dry wt	2.1	0.23	0.26	0.24	0.28
Total Recoverable Chromium	mg/kg dry wt	20	16	20	18	17
Total Recoverable Copper	mg/kg dry wt	29	21	22	25	21
Total Recoverable Lead	mg/kg dry wt	72	48	39	52	44
Total Recoverable Nickel	mg/kg dry wt	14	11	12	11	11
Total Recoverable Zinc	mg/kg dry wt	310	230	186	300	210



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Sample Type: Soil						
Sample Name:		S2 - Landfill SP6F - 01 20-Feb-2026	S2 - Landfill SP6F - 02 20-Feb-2026	S2 - Landfill SP6F - 03 20-Feb-2026	S2 - Landfill SP6G - 01 20-Feb-2026	S2 - Landfill SP6G - 02 20-Feb-2026
Lab Number:		4107090.16	4107090.17	4107090.18	4107090.19	4107090.20
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	7	9	9	8	9
Total Recoverable Cadmium	mg/kg dry wt	0.20	0.24	0.30	0.23	0.20
Total Recoverable Chromium	mg/kg dry wt	38	17	16	18	18
Total Recoverable Copper	mg/kg dry wt	19	24	23	20	23
Total Recoverable Lead	mg/kg dry wt	200	45	53	40	38
Total Recoverable Nickel	mg/kg dry wt	20	12	12	11	11
Total Recoverable Zinc	mg/kg dry wt	186	310	250	210	220

Sample Name:		S2 - Landfill SP6G - 03 20-Feb-2026	S2 - Landfill SP6H - 01 20-Feb-2026	S2 - Landfill SP6H - 02 20-Feb-2026	S2 - Landfill SP6H - 03 20-Feb-2026	S2 - Landfill SP6I - 01 20-Feb-2026
Lab Number:		4107090.21	4107090.22	4107090.23	4107090.24	4107090.25
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	7	9	8	9
Total Recoverable Cadmium	mg/kg dry wt	0.24	0.14	0.28	0.23	0.14
Total Recoverable Chromium	mg/kg dry wt	18	16	20	17	18
Total Recoverable Copper	mg/kg dry wt	21	14	22	24	15
Total Recoverable Lead	mg/kg dry wt	57	38	53	49	40
Total Recoverable Nickel	mg/kg dry wt	11	11	12	11	12
Total Recoverable Zinc	mg/kg dry wt	230	157	230	220	155

Sample Name:		S2 - Landfill SP6I - 02 20-Feb-2026	S2 - Landfill SP6I - 03 20-Feb-2026	S2 - Landfill SP6J - 01 20-Feb-2026	S2 - Landfill SP6J - 02 20-Feb-2026	S2 - Landfill SP6J - 03 20-Feb-2026
Lab Number:		4107090.26	4107090.27	4107090.28	4107090.29	4107090.30
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	7	7	8	7
Total Recoverable Cadmium	mg/kg dry wt	0.16	0.22	0.13	0.29	0.22
Total Recoverable Chromium	mg/kg dry wt	16	15	17	17	16
Total Recoverable Copper	mg/kg dry wt	18	24	13	24	21
Total Recoverable Lead	mg/kg dry wt	32	43	29	59	47
Total Recoverable Nickel	mg/kg dry wt	11	10	11	11	10
Total Recoverable Zinc	mg/kg dry wt	890	220	137	420	210

Sample Name:		S2 - Landfill SP6K - 01 20-Feb-2026	S2 - Landfill SP6K - 02 20-Feb-2026	S2 - Landfill SP6K - 03 20-Feb-2026
Lab Number:		4107090.31	4107090.32	4107090.33
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	8	10	8
Total Recoverable Cadmium	mg/kg dry wt	0.16	0.35	0.35
Total Recoverable Chromium	mg/kg dry wt	16	22	19
Total Recoverable Copper	mg/kg dry wt	22	173	45
Total Recoverable Lead	mg/kg dry wt	66	82	73
Total Recoverable Nickel	mg/kg dry wt	10	11	11
Total Recoverable Zinc	mg/kg dry wt	166	270	230

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-33

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-33

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

Testing was completed between 21-Feb-2026 and 25-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4134597	A2Pv1
Contact:	Nathan Cash	Date Received:	14-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	18-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	EB-S2- Stockpile 7	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP7A-01 13-Mar-2026	S2-Landfill SP7A-02 13-Mar-2026	S2-Landfill SP7A-03 13-Mar-2026	S2-Landfill SP7B-01 13-Mar-2026	S2-Landfill SP7B-02 13-Mar-2026
Lab Number:	4134597.1	4134597.2	4134597.3	4134597.4	4134597.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 646.8	g 710.2	g 661.8	g 747.7	g 627.6
Dry Weight	g 552.2	g 602.5	g 559.5	g 603.4	g 522.1
Moisture*	% 15	% 15	% 15	% 19	% 17
Sample Fraction >10mm	g dry wt 152.9	g dry wt 135.7	g dry wt 57.4	g dry wt 120.4	g dry wt 73.0
Sample Fraction <10mm to >2mm	g dry wt 130.7	g dry wt 169.9	g dry wt 138.9	g dry wt 140.6	g dry wt 134.2
Sample Fraction <2mm	g dry wt 268.2	g dry wt 296.5	g dry wt 362.2	g dry wt 342.2	g dry wt 314.1
<2mm Subsample Weight	g dry wt 51.8	g dry wt 59.0	g dry wt 55.8	g dry wt 52.7	g dry wt 56.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2-Landfill SP7B-03 13-Mar-2026	S2-Landfill SP7C-01 13-Mar-2026	S2-Landfill SP7C-02 13-Mar-2026	S2-Landfill SP7C-03 13-Mar-2026	S2-Landfill SP7D-01 13-Mar-2026
Lab Number:	4134597.6	4134597.7	4134597.8	4134597.9	4134597.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 734.6	g 719.6	g 679.4	g 724.8	g 670.9



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Sample Type: Soil						
Sample Name:		S2-Landfill SP7B-03 13-Mar-2026	S2-Landfill SP7C-01 13-Mar-2026	S2-Landfill SP7C-02 13-Mar-2026	S2-Landfill SP7C-03 13-Mar-2026	S2-Landfill SP7D-01 13-Mar-2026
Lab Number:		4134597.6	4134597.7	4134597.8	4134597.9	4134597.10
Dry Weight	g	599.3	579.9	564.3	599.7	604.7
Moisture*	%	18	19	17	17	10
Sample Fraction >10mm		g dry wt	152.6	130.2	234.5	202.1
Sample Fraction <10mm to >2mm		g dry wt	111.3	132.7	107.1	113.6
Sample Fraction <2mm		g dry wt	332.8	316.0	222.0	283.2
<2mm Subsample Weight		g dry wt	57.5	53.3	56.8	55.9
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2-Landfill SP7D-02 13-Mar-2026	S2-Landfill SP7D-03 13-Mar-2026	S2-Landfill SP7E-01 13-Mar-2026	S2-Landfill SP7E-02 13-Mar-2026	S2-Landfill SP7E-03 13-Mar-2026
Lab Number:		4134597.11	4134597.12	4134597.13	4134597.14	4134597.15
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	716.5	767.7	683.8	639.4
Dry Weight		g	560.6	607.7	557.2	508.2
Moisture*		%	22	21	19	21
Sample Fraction >10mm		g dry wt	88.4	125.0	163.9	90.3
Sample Fraction <10mm to >2mm		g dry wt	105.0	141.1	122.4	115.1
Sample Fraction <2mm		g dry wt	366.6	341.2	270.4	301.6
<2mm Subsample Weight		g dry wt	56.2	55.0	53.5	57.8
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-15
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-15
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-15
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-15
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-15
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-15
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-15
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-15
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-15
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-15
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-15
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-15
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-15
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-15
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-15

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

Testing was completed on 18-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4134596	SPV2
Contact:	Nathan Cash	Date Received:	14-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	20-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	EB-S2-Stockpile 7	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP7A-01 13-Mar-2026	S2-Landfill SP7A-02 13-Mar-2026	S2-Landfill SP7A-03 13-Mar-2026	S2-Landfill SP7B-01 13-Mar-2026	S2-Landfill SP7B-02 13-Mar-2026
Lab Number:	4134596.1	4134596.2	4134596.3	4134596.4	4134596.5

Individual Tests

Ash*	g/100g dry wt	93	-	-	92	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	17	10	10	14	9
Total Recoverable Cadmium	mg/kg dry wt	0.29	0.38	0.45	0.63	0.30
Total Recoverable Chromium	mg/kg dry wt	25	20	22	27	19
Total Recoverable Copper	mg/kg dry wt	41	27	29	46	30
Total Recoverable Lead	mg/kg dry wt	67	72	70	220	68
Total Recoverable Nickel	mg/kg dry wt	14	12	12	14	11
Total Recoverable Zinc	mg/kg dry wt	260	280	270	400	250

Sample Name:	S2-Landfill SP7B-03 13-Mar-2026	S2-Landfill SP7C-01 13-Mar-2026	S2-Landfill SP7C-02 13-Mar-2026	S2-Landfill SP7C-03 13-Mar-2026	S2-Landfill SP7D-01 13-Mar-2026
Lab Number:	4134596.6	4134596.7	4134596.8	4134596.9	4134596.10

Individual Tests

Ash*	g/100g dry wt	-	93	-	-	93
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	15	12	12	13	10
Total Recoverable Cadmium	mg/kg dry wt	0.45	0.61	0.49	0.66	0.33
Total Recoverable Chromium	mg/kg dry wt	25	23	24	22	22
Total Recoverable Copper	mg/kg dry wt	33	37	47	36	35
Total Recoverable Lead	mg/kg dry wt	99	230	90	91	64
Total Recoverable Nickel	mg/kg dry wt	14	13	15	13	11
Total Recoverable Zinc	mg/kg dry wt	320	750	360	370	330

Sample Name:	S2-Landfill SP7D-02 13-Mar-2026	S2-Landfill SP7D-03 13-Mar-2026	S2-Landfill SP7E-01 13-Mar-2026	S2-Landfill SP7E-02 13-Mar-2026	S2-Landfill SP7E-03 13-Mar-2026
Lab Number:	4134596.11	4134596.12	4134596.13	4134596.14	4134596.15

Individual Tests

Ash*	g/100g dry wt	-	-	91	-	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	8	11	9	8	7
Total Recoverable Cadmium	mg/kg dry wt	0.21	0.47	0.22	0.22	0.16
Total Recoverable Chromium	mg/kg dry wt	16	33	16	19	16
Total Recoverable Copper	mg/kg dry wt	28	36	32	24	18
Total Recoverable Lead	mg/kg dry wt	65	96	68	78	34
Total Recoverable Nickel	mg/kg dry wt	11	18	11	12	11



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Sample Type: Soil					
Sample Name:	S2-Landfill SP7D-02	S2-Landfill SP7D-03	S2-Landfill SP7E-01	S2-Landfill SP7E-02	S2-Landfill SP7E-03
	13-Mar-2026	13-Mar-2026	13-Mar-2026	13-Mar-2026	13-Mar-2026
Lab Number:	4134596.11	4134596.12	4134596.13	4134596.14	4134596.15
Heavy Metals, Screen Level					
Total Recoverable Zinc	mg/kg dry wt	230	370	230	210
					172

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
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	1-15
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7, 10, 13

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

Testing was completed between 17-Mar-2026 and 20-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4139757	A2Pv1
Contact:	Nathan Cash	Date Received:	17-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	20-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 8	
		Add. Client Ref:	CHC2026 - 0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP8A-01 17-Mar-2026	S2 - Landfill SP8A-02 17-Mar-2026	S2 - Landfill SP8A-03 17-Mar-2026	S2 - Landfill SP8B-01 17-Mar-2026	S2 - Landfill SP8B-02 17-Mar-2026
Lab Number:	4139757.1	4139757.2	4139757.3	4139757.4	4139757.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 745.2	g 568.3	g 731.0	g 648.2	g 744.9
Dry Weight	g 635.8	g 475.7	g 607.4	g 540.3	g 629.7
Moisture*	% 15	% 16	% 17	% 17	% 15
Sample Fraction >10mm	g dry wt 176.5	g dry wt 97.5	g dry wt 156.9	g dry wt 125.7	g dry wt 73.8
Sample Fraction <10mm to >2mm	g dry wt 190.7	g dry wt 195.2	g dry wt 181.3	g dry wt 192.3	g dry wt 222.1
Sample Fraction <2mm	g dry wt 267.4	g dry wt 182.5	g dry wt 267.8	g dry wt 221.2	g dry wt 333.0
<2mm Subsample Weight	g dry wt 55.2	g dry wt 50.8	g dry wt 55.7	g dry wt 54.0	g dry wt 50.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2 - Landfill SP8B-03 17-Mar-2026	S2 - Landfill SP8C-01 17-Mar-2026	S2 - Landfill SP8C-02 17-Mar-2026	S2 - Landfill SP8C-03 17-Mar-2026	S2 - Landfill SP8D-01 17-Mar-2026
Lab Number:	4139757.6	4139757.7	4139757.8	4139757.9	4139757.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 748.6	g 706.1	g 744.5	g 689.8	g 691.1



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Sample Type: Soil						
Sample Name:		S2 - Landfill SP8B-03 17-Mar-2026	S2 - Landfill SP8C-01 17-Mar-2026	S2 - Landfill SP8C-02 17-Mar-2026	S2 - Landfill SP8C-03 17-Mar-2026	S2 - Landfill SP8D-01 17-Mar-2026
Lab Number:		4139757.6	4139757.7	4139757.8	4139757.9	4139757.10
Dry Weight	g	625.3	606.4	665.6	570.0	574.0
Moisture*	%	16	14	11	17	17
Sample Fraction >10mm		g dry wt	130.0	98.4	217.9	143.4
Sample Fraction <10mm to >2mm		g dry wt	185.0	213.9	200.6	179.4
Sample Fraction <2mm		g dry wt	309.9	293.5	246.2	246.8
<2mm Subsample Weight		g dry wt	51.2	52.0	54.2	52.2
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP8D-02 17-Mar-2026	S2 - Landfill SP8D-03 17-Mar-2026	S2 - Landfill SP8E-01 17-Mar-2026	S2 - Landfill SP8E-02 17-Mar-2026	S2 - Landfill SP8E-03 17-Mar-2026
Lab Number:		4139757.11	4139757.12	4139757.13	4139757.14	4139757.15
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	660.3	757.5	698.8	712.2
Dry Weight		g	558.8	629.1	603.9	609.7
Moisture*		%	15	17	14	14
Sample Fraction >10mm		g dry wt	58.3	86.9	112.6	131.1
Sample Fraction <10mm to >2mm		g dry wt	185.6	237.7	170.2	206.5
Sample Fraction <2mm		g dry wt	313.2	303.6	319.7	271.3
<2mm Subsample Weight		g dry wt	51.4	52.7	51.5	53.6
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP8F-01 17-Mar-2026	S2 - Landfill SP8F-02 17-Mar-2026	S2 - Landfill SP8F-03 17-Mar-2026	S2 - Landfill SP8G-01 17-Mar-2026	S2 - Landfill SP8G-02 17-Mar-2026
Lab Number:		4139757.16	4139757.17	4139757.18	4139757.19	4139757.20
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	733.6	674.1	697.0	708.7
Dry Weight		g	606.6	584.1	564.0	582.1
Moisture*		%	17	13	19	18

Sample Type: Soil						
Sample Name:		S2 - Landfill SP8F-01 17-Mar-2026	S2 - Landfill SP8F-02 17-Mar-2026	S2 - Landfill SP8F-03 17-Mar-2026	S2 - Landfill SP8G-01 17-Mar-2026	S2 - Landfill SP8G-02 17-Mar-2026
Lab Number:		4139757.16	4139757.17	4139757.18	4139757.19	4139757.20
Sample Fraction >10mm	g dry wt	133.5	108.1	68.9	84.0	95.1
Sample Fraction <10mm to >2mm	g dry wt	190.5	199.6	155.2	189.9	207.1
Sample Fraction <2mm	g dry wt	282.2	275.3	338.9	306.8	334.4
<2mm Subsample Weight	g dry wt	51.2	54.3	55.7	51.4	55.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP8G-03 17-Mar-2026	S2 - Landfill SP8H-01 17-Mar-2026	S2 - Landfill SP8H-02 17-Mar-2026	S2 - Landfill SP8H-03 17-Mar-2026
Lab Number:		4139757.21	4139757.22	4139757.23	4139757.24
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	746.9	679.1	732.6	719.8
Dry Weight	g	618.1	583.3	602.0	609.5
Moisture*	%	17	14	18	15
Sample Fraction >10mm	g dry wt	112.5	85.0	147.4	102.7
Sample Fraction <10mm to >2mm	g dry wt	183.0	203.3	153.6	188.2
Sample Fraction <2mm	g dry wt	321.2	293.6	299.3	317.4
<2mm Subsample Weight	g dry wt	52.3	56.7	54.8	56.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-24
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-24
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-24
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24

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

Testing was completed on 20-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayan BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4139756	SPv1
Contact:	Nathan Cash	Date Received:	17-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	20-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 8	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - LANDFILL SP8A - 01 17-Mar-2026	S2 - LANDFILL SP8A - 02 17-Mar-2026	S2 - LANDFILL SP8A - 03 17-Mar-2026	S2 - LANDFILL SP8B - 01 17-Mar-2026	S2 - LANDFILL SP8B - 02 17-Mar-2026
Lab Number:	4139756.1	4139756.2	4139756.3	4139756.4	4139756.5

Individual Tests

Ash*	g/100g dry wt	93	-	-	92	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	28	12	10	12	12
Total Recoverable Cadmium	mg/kg dry wt	0.32	0.31	0.31	0.26	0.50
Total Recoverable Chromium	mg/kg dry wt	20	18	18	18	19
Total Recoverable Copper	mg/kg dry wt	39	31	53	28	30
Total Recoverable Lead	mg/kg dry wt	76	115	56	58	75
Total Recoverable Nickel	mg/kg dry wt	12	12	12	13	12
Total Recoverable Zinc	mg/kg dry wt	280	290	280	240	410

Sample Name:	S2 - LANDFILL SP8B - 03 17-Mar-2026	S2 - LANDFILL SP8C - 01 17-Mar-2026	S2 - LANDFILL SP8C - 02 17-Mar-2026	S2 - LANDFILL SP8C - 03 17-Mar-2026	S2 - LANDFILL SP8D - 01 17-Mar-2026
Lab Number:	4139756.6	4139756.7	4139756.8	4139756.9	4139756.10

Individual Tests

Ash*	g/100g dry wt	-	93	-	-	94
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	11	14	10	10	8
Total Recoverable Cadmium	mg/kg dry wt	0.39	0.29	0.23	0.38	0.32
Total Recoverable Chromium	mg/kg dry wt	20	19	19	18	16
Total Recoverable Copper	mg/kg dry wt	33	35	26	28	19
Total Recoverable Lead	mg/kg dry wt	65	310	80	63	51
Total Recoverable Nickel	mg/kg dry wt	12	12	11	12	10
Total Recoverable Zinc	mg/kg dry wt	290	280	220	250	260

Sample Name:	S2 - LANDFILL SP8D - 02 17-Mar-2026	S2 - LANDFILL SP8D - 03 17-Mar-2026	S2 - LANDFILL SP8E - 01 17-Mar-2026	S2 - LANDFILL SP8E - 02 17-Mar-2026	S2 - LANDFILL SP8E - 03 17-Mar-2026
Lab Number:	4139756.11	4139756.12	4139756.13	4139756.14	4139756.15

Individual Tests

Ash*	g/100g dry wt	-	-	93	-	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	9	11	10	11
Total Recoverable Cadmium	mg/kg dry wt	0.26	0.29	0.31	0.52	0.42
Total Recoverable Chromium	mg/kg dry wt	15	16	18	20	21
Total Recoverable Copper	mg/kg dry wt	19	23	27	33	31
Total Recoverable Lead	mg/kg dry wt	46	57	63	114	84
Total Recoverable Nickel	mg/kg dry wt	10	13	12	13	13



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Sample Type: Soil						
Sample Name:	S2 - LANDFILL SP8D - 02 17-Mar-2026	S2 - LANDFILL SP8D - 03 17-Mar-2026	S2 - LANDFILL SP8E - 01 17-Mar-2026	S2 - LANDFILL SP8E - 02 17-Mar-2026	S2 - LANDFILL SP8E - 03 17-Mar-2026	
Lab Number:	4139756.11	4139756.12	4139756.13	4139756.14	4139756.15	
Heavy Metals, Screen Level						
Total Recoverable Zinc	mg/kg dry wt	200	230	240	380	340
Sample Name:	S2 - LANDFILL SP8F - 01 17-Mar-2026	S2 - LANDFILL SP8F - 02 17-Mar-2026	S2 - LANDFILL SP8F - 03 17-Mar-2026	S2 - LANDFILL SP8G - 01 17-Mar-2026	S2 - LANDFILL SP8G - 02 17-Mar-2026	
Lab Number:	4139756.16	4139756.17	4139756.18	4139756.19	4139756.20	
Individual Tests						
Ash*	g/100g dry wt	94	-	-	93	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	11	12	8	8	8
Total Recoverable Cadmium	mg/kg dry wt	0.52	0.45	0.69	0.61	0.36
Total Recoverable Chromium	mg/kg dry wt	21	22	18	17	17
Total Recoverable Copper	mg/kg dry wt	38	43	35	27	27
Total Recoverable Lead	mg/kg dry wt	78	85	93	360	84
Total Recoverable Nickel	mg/kg dry wt	13	14	13	12	12
Total Recoverable Zinc	mg/kg dry wt	380	390	350	310	280
Sample Name:	S2 - LANDFILL SP8G - 03 17-Mar-2026	S2 - LANDFILL SP8H - 01 17-Mar-2026	S2 - LANDFILL SP8H - 02 17-Mar-2026	S2 - LANDFILL SP8H - 03 17-Mar-2026		
Lab Number:	4139756.21	4139756.22	4139756.23	4139756.24		
Individual Tests						
Ash*	g/100g dry wt	-	93	-	-	
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	9	11	9	
Total Recoverable Cadmium	mg/kg dry wt	0.39	0.35	1.19	0.39	
Total Recoverable Chromium	mg/kg dry wt	18	18	20	18	
Total Recoverable Copper	mg/kg dry wt	26	26	28	25	
Total Recoverable Lead	mg/kg dry wt	91	77	116	79	
Total Recoverable Nickel	mg/kg dry wt	12	12	13	12	
Total Recoverable Zinc	mg/kg dry wt	330	330	840	280	

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
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	1-24
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7, 10, 13, 16, 19, 22

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

Testing was completed between 18-Mar-2026 and 20-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142366	A2Pv1
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 9	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP9A-01 18-Mar-2026	S2 - Landfill SP9A-02 18-Mar-2026	S2 - Landfill SP9A-03 18-Mar-2026	S2 - Landfill SP9B-01 18-Mar-2026	S2 - Landfill SP9B-02 18-Mar-2026
Lab Number:	4142366.1	4142366.2	4142366.3	4142366.4	4142366.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 733.6	g 598.7	g 718.6	g 579.7	g 668.2
Dry Weight	g 628.3	g 486.4	g 600.6	g 473.1	g 544.7
Moisture*	% 14	% 19	% 16	% 18	% 18
Sample Fraction >10mm	g dry wt 153.8	g dry wt 73.3	g dry wt 126.1	g dry wt 89.7	g dry wt 99.1
Sample Fraction <10mm to >2mm	g dry wt 178.8	g dry wt 128.3	g dry wt 160.6	g dry wt 139.4	g dry wt 134.3
Sample Fraction <2mm	g dry wt 293.6	g dry wt 284.7	g dry wt 313.0	g dry wt 243.3	g dry wt 310.4
<2mm Subsample Weight	g dry wt 51.9	g dry wt 54.7	g dry wt 54.4	g dry wt 54.8	g dry wt 51.7
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2 - Landfill SP9B-03 18-Mar-2026	S2 - Landfill SP9C-01 18-Mar-2026	S2 - Landfill SP9C-02 18-Mar-2026	S2 - Landfill SP9C-03 18-Mar-2026	S2 - Landfill SP9D-01 18-Mar-2026
Lab Number:	4142366.6	4142366.7	4142366.8	4142366.9	4142366.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 713.3	g 576.0	g 637.3	g 734.1	g 582.3



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Sample Type: Soil						
Sample Name:		S2 - Landfill SP9B-03 18-Mar-2026	S2 - Landfill SP9C-01 18-Mar-2026	S2 - Landfill SP9C-02 18-Mar-2026	S2 - Landfill SP9C-03 18-Mar-2026	S2 - Landfill SP9D-01 18-Mar-2026
Lab Number:		4142366.6	4142366.7	4142366.8	4142366.9	4142366.10
Dry Weight	g	592.0	467.8	514.6	599.5	468.8
Moisture*	%	17	19	19	18	19
Sample Fraction >10mm		g dry wt	57.5	72.1	66.6	103.2
Sample Fraction <10mm to >2mm		g dry wt	150.8	127.7	130.5	158.7
Sample Fraction <2mm		g dry wt	382.4	267.1	316.6	336.4
<2mm Subsample Weight		g dry wt	50.5	51.2	54.4	54.4
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP9D-02 18-Mar-2026	S2 - Landfill SP9D-03 18-Mar-2026	S2 - Landfill SP9E-01 18-Mar-2026	S2 - Landfill SP9E-02 18-Mar-2026	S2 - Landfill SP9E-03 18-Mar-2026
Lab Number:		4142366.11	4142366.12	4142366.13	4142366.14	4142366.15
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	635.7	749.8	646.1	623.4
Dry Weight		g	509.2	625.4	531.0	503.8
Moisture*		%	20	17	18	19
Sample Fraction >10mm		g dry wt	41.6	139.0	109.3	61.8
Sample Fraction <10mm to >2mm		g dry wt	167.8	186.6	150.7	162.0
Sample Fraction <2mm		g dry wt	298.6	298.6	268.8	279.5
<2mm Subsample Weight		g dry wt	52.8	52.1	55.0	52.6
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP9F-01 18-Mar-2026	S2 - Landfill SP9F-02 18-Mar-2026	S2 - Landfill SP9F-03 18-Mar-2026	S2 - Landfill SP9G-01 18-Mar-2026	S2 - Landfill SP9G-02 18-Mar-2026
Lab Number:		4142366.16	4142366.17	4142366.18	4142366.19	4142366.20
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	549.7	624.0	575.8	635.3
Dry Weight		g	444.5	498.8	458.7	522.4
Moisture*		%	19	20	20	18

Sample Type: Soil						
Sample Name:		S2 - Landfill SP9F-01 18-Mar-2026	S2 - Landfill SP9F-02 18-Mar-2026	S2 - Landfill SP9F-03 18-Mar-2026	S2 - Landfill SP9G-01 18-Mar-2026	S2 - Landfill SP9G-02 18-Mar-2026
Lab Number:		4142366.16	4142366.17	4142366.18	4142366.19	4142366.20
Sample Fraction >10mm	g dry wt	68.7	50.2	41.5	98.6	27.4
Sample Fraction <10mm to >2mm	g dry wt	146.0	170.3	142.5	157.1	184.6
Sample Fraction <2mm	g dry wt	228.6	277.4	273.9	265.7	272.2
<2mm Subsample Weight	g dry wt	51.6	57.0	50.5	55.9	57.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP9G-03 18-Mar-2026	S2 - Landfill SP9H-01 18-Mar-2026	S2 - Landfill SP9H-02 18-Mar-2026	S2 - Landfill SP9H-03 18-Mar-2026
Lab Number:		4142366.21	4142366.22	4142366.23	4142366.24
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	645.8	796.3	674.0	811.4
Dry Weight	g	514.7	655.7	549.9	670.6
Moisture*	%	20	18	18	17
Sample Fraction >10mm	g dry wt	55.6	140.2	105.0	152.3
Sample Fraction <10mm to >2mm	g dry wt	177.2	198.6	163.7	166.0
Sample Fraction <2mm	g dry wt	280.9	315.5	277.6	350.7
<2mm Subsample Weight	g dry wt	52.7	52.1	54.4	55.9
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-24
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-24
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-24
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-24
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-24
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-24
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-24

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

Testing was completed on 23-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Belinda Hughes BSc, PGDipSci
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142369	SPV1
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 9	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP9A-01 18-Mar-2026	S2 - Landfill SP9A-02 18-Mar-2026	S2 - Landfill SP9A-03 18-Mar-2026	S2 - Landfill SP9B-01 18-Mar-2026	S2 - Landfill SP9B-02 18-Mar-2026
Lab Number:	4142369.1	4142369.2	4142369.3	4142369.4	4142369.5

Individual Tests

Ash*	g/100g dry wt	93	-	-	93	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	8	7	8	7
Total Recoverable Cadmium	mg/kg dry wt	0.26	0.28	0.35	0.29	0.27
Total Recoverable Chromium	mg/kg dry wt	16	17	17	16	16
Total Recoverable Copper	mg/kg dry wt	22	26	23	22	21
Total Recoverable Lead	mg/kg dry wt	64	60	57	58	54
Total Recoverable Nickel	mg/kg dry wt	11	12	11	11	10
Total Recoverable Zinc	mg/kg dry wt	230	270	300	270	240

Sample Name:	S2 - Landfill SP9B-03 18-Mar-2026	S2 - Landfill SP9C-01 18-Mar-2026	S2 - Landfill SP9C-02 18-Mar-2026	S2 - Landfill SP9C-03 18-Mar-2026	S2 - Landfill SP9D-01 18-Mar-2026
Lab Number:	4142369.6	4142369.7	4142369.8	4142369.9	4142369.10

Individual Tests

Ash*	g/100g dry wt	-	93	-	-	93
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	8	8	8	9	8
Total Recoverable Cadmium	mg/kg dry wt	0.30	0.30	0.28	0.32	0.28
Total Recoverable Chromium	mg/kg dry wt	16	16	15	20	17
Total Recoverable Copper	mg/kg dry wt	25	22	20	28	26
Total Recoverable Lead	mg/kg dry wt	61	61	85	66	62
Total Recoverable Nickel	mg/kg dry wt	11	11	10	13	11
Total Recoverable Zinc	mg/kg dry wt	260	280	240	270	250

Sample Name:	S2 - Landfill SP9D-02 18-Mar-2026	S2 - Landfill SP9D-03 18-Mar-2026	S2 - Landfill SP9E-01 18-Mar-2026	S2 - Landfill SP9E-02 18-Mar-2026	S2 - Landfill SP9E-03 18-Mar-2026
Lab Number:	4142369.11	4142369.12	4142369.13	4142369.14	4142369.15

Individual Tests

Ash*	g/100g dry wt	-	-	92	-	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	9	10	9	10	10
Total Recoverable Cadmium	mg/kg dry wt	0.34	0.37	0.35	0.42	0.36
Total Recoverable Chromium	mg/kg dry wt	17	20	18	19	19
Total Recoverable Copper	mg/kg dry wt	22	34	51	28	33
Total Recoverable Lead	mg/kg dry wt	88	120	77	70	68
Total Recoverable Nickel	mg/kg dry wt	11	11	11	12	12



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Sample Type: Soil						
Sample Name:		S2 - Landfill SP9D-02 18-Mar-2026	S2 - Landfill SP9D-03 18-Mar-2026	S2 - Landfill SP9E-01 18-Mar-2026	S2 - Landfill SP9E-02 18-Mar-2026	S2 - Landfill SP9E-03 18-Mar-2026
Lab Number:		4142369.11	4142369.12	4142369.13	4142369.14	4142369.15
Heavy Metals, Screen Level						
Total Recoverable Zinc	mg/kg dry wt	290	290	290	320	280
Sample Name:		S2 - Landfill SP9F-01 18-Mar-2026	S2 - Landfill SP9F-02 18-Mar-2026	S2 - Landfill SP9F-03 18-Mar-2026	S2 - Landfill SP9G-01 18-Mar-2026	S2 - Landfill SP9G-02 18-Mar-2026
Lab Number:		4142369.16	4142369.17	4142369.18	4142369.19	4142369.20
Individual Tests						
Ash*	g/100g dry wt	93	-	-	92	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	11	15	11	10	10
Total Recoverable Cadmium	mg/kg dry wt	0.43	0.57	0.36	0.34	0.31
Total Recoverable Chromium	mg/kg dry wt	22	25	20	20	18
Total Recoverable Copper	mg/kg dry wt	28	34	27	49	26
Total Recoverable Lead	mg/kg dry wt	77	103	187	95	59
Total Recoverable Nickel	mg/kg dry wt	12	14	12	14	12
Total Recoverable Zinc	mg/kg dry wt	1,120	530	380	330	250
Sample Name:		S2 - Landfill SP9G-03 18-Mar-2026	S2 - Landfill SP9H-01 18-Mar-2026	S2 - Landfill SP9H-02 18-Mar-2026	S2 - Landfill SP9H-03 18-Mar-2026	
Lab Number:		4142369.21	4142369.22	4142369.23	4142369.24	
Individual Tests						
Ash*	g/100g dry wt	-	93	-	-	
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	12	9	9	8	
Total Recoverable Cadmium	mg/kg dry wt	0.37	0.35	0.31	0.29	
Total Recoverable Chromium	mg/kg dry wt	20	19	19	18	
Total Recoverable Copper	mg/kg dry wt	28	24	26	25	
Total Recoverable Lead	mg/kg dry wt	77	69	350	93	
Total Recoverable Nickel	mg/kg dry wt	12	12	11	11	
Total Recoverable Zinc	mg/kg dry wt	290	230	310	260	

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
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	1-24
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7, 10, 13, 16, 19, 22

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

Testing was completed between 19-Mar-2026 and 23-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142324	A2Pv1
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 10	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP10-01 18-Mar-2026	S2 - Landfill SP10-02 18-Mar-2026	S2 - Landfill SP10-03 18-Mar-2026	S2 - Landfill SP10-04 18-Mar-2026	S2 - Landfill SP10-05 18-Mar-2026
Lab Number:	4142324.1	4142324.2	4142324.3	4142324.4	4142324.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 642.0	g 610.1	g 537.1	g 644.0	g 671.3
Dry Weight	g 544.3	g 501.1	g 437.8	g 519.0	g 546.3
Moisture*	% 15	% 18	% 18	% 19	% 19
Sample Fraction >10mm	g dry wt 68.9	g dry wt 64.6	g dry wt 44.4	g dry wt 50.1	g dry wt 102.3
Sample Fraction <10mm to >2mm	g dry wt 144.1	g dry wt 116.6	g dry wt 108.1	g dry wt 131.4	g dry wt 145.5
Sample Fraction <2mm	g dry wt 330.3	g dry wt 319.1	g dry wt 284.3	g dry wt 335.7	g dry wt 297.8
<2mm Subsample Weight	g dry wt 56.7	g dry wt 50.3	g dry wt 54.7	g dry wt 54.7	g dry wt 50.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2 - Landfill SP10-06 18-Mar-2026
Lab Number:	4142324.6
Asbestos Presence / Absence	Asbestos NOT detected.
Description of Asbestos Form	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001
As Received Weight	g 676.6
Dry Weight	g 597.0
Moisture*	% 12



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Sample Type: Soil		
Sample Name:		S2 - Landfill SP10-06 18-Mar-2026
Lab Number:		4142324.6
Sample Fraction >10mm	g dry wt	113.4
Sample Fraction <10mm to >2mm	g dry wt	153.0
Sample Fraction <2mm	g dry wt	329.2
<2mm Subsample Weight	g dry wt	54.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-6
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-6
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-6
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-6
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-6

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6

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

Testing was completed on 23-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142325	SPv1
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 10	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP10 - 01 18-Mar-2026	S2 - Landfill SP10 - 02 18-Mar-2026	S2 - Landfill SP10 - 03 18-Mar-2026	S2 - Landfill SP10 - 04 18-Mar-2026	S2 - Landfill SP10 - 05 18-Mar-2026
Lab Number:	4142325.1	4142325.2	4142325.3	4142325.4	4142325.5

Individual Tests						
Ash*	g/100g dry wt	93	93	93	93	92
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	7	8	8	10	14
Total Recoverable Cadmium	mg/kg dry wt	0.17	0.13	0.16	0.35	0.49
Total Recoverable Chromium	mg/kg dry wt	16	18	17	20	25
Total Recoverable Copper	mg/kg dry wt	13	19	16	27	29
Total Recoverable Lead	mg/kg dry wt	29	36	36	72	80
Total Recoverable Nickel	mg/kg dry wt	11	11	11	11	13
Total Recoverable Zinc	mg/kg dry wt	170	176	182	280	350

Sample Name:	S2 - Landfill SP10 - 06 18-Mar-2026
Lab Number:	4142325.6

Individual Tests	
Ash*	g/100g dry wt 92
Heavy Metals, Screen Level	
Total Recoverable Arsenic	mg/kg dry wt 9
Total Recoverable Cadmium	mg/kg dry wt 0.34
Total Recoverable Chromium	mg/kg dry wt 19
Total Recoverable Copper	mg/kg dry wt 27
Total Recoverable Lead	mg/kg dry wt 53
Total Recoverable Nickel	mg/kg dry wt 12
Total Recoverable Zinc	mg/kg dry wt 260

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
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	1-6
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1-6



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

Testing was completed between 19-Mar-2026 and 23-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4153080	A2Pv1
Contact:	Nathan Cash	Date Received:	25-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	30-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	CHC144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 11	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2- Landfill SP11A-01 25-Mar-2026	S2- Landfill SP11A-02 25-Mar-2026	S2- Landfill SP11B-01 25-Mar-2026	S2- Landfill SP11B-02 25-Mar-2026	S2- Landfill SP11C-01 25-Mar-2026
Lab Number:	4153080.1	4153080.2	4153080.3	4153080.4	4153080.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 635.1	g 711.0	g 692.0	g 748.2	g 592.6
Dry Weight	g 551.3	g 583.4	g 571.2	g 632.2	g 481.8
Moisture*	% 13	% 18	% 17	% 16	% 19
Sample Fraction >10mm	g dry wt 100.5	g dry wt 126.9	g dry wt 94.8	g dry wt 161.8	g dry wt 66.4
Sample Fraction <10mm to >2mm	g dry wt 189.7	g dry wt 177.1	g dry wt 173.6	g dry wt 184.6	g dry wt 167.6
Sample Fraction <2mm	g dry wt 257.9	g dry wt 278.2	g dry wt 301.4	g dry wt 283.2	g dry wt 247.7
<2mm Subsample Weight	g dry wt 53.0	g dry wt 54.2	g dry wt 51.0	g dry wt 50.6	g dry wt 51.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2- Landfill SP11C-02 25-Mar-2026	S2- Landfill SP11D-01 25-Mar-2026	S2- Landfill SP11D-02 25-Mar-2026	S2- Landfill SP11E-01 25-Mar-2026	S2- Landfill SP11E-02 25-Mar-2026
Lab Number:	4153080.6	4153080.7	4153080.8	4153080.9	4153080.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 728.8	g 657.0	g 729.7	g 662.8	g 681.8



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Sample Type: Soil						
Sample Name:		S2- Landfill SP11C-02 25-Mar-2026	S2- Landfill SP11D-01 25-Mar-2026	S2- Landfill SP11D-02 25-Mar-2026	S2- Landfill SP11E-01 25-Mar-2026	S2- Landfill SP11E-02 25-Mar-2026
Lab Number:		4153080.6	4153080.7	4153080.8	4153080.9	4153080.10
Dry Weight	g	606.7	551.9	623.1	577.1	578.9
Moisture*	%	17	16	15	13	15
Sample Fraction >10mm	g dry wt	175.2	57.9	171.8	113.5	122.6
Sample Fraction <10mm to >2mm	g dry wt	203.2	186.2	179.2	166.3	182.4
Sample Fraction <2mm	g dry wt	227.0	305.4	272.0	296.1	272.9
<2mm Subsample Weight	g dry wt	50.2	54.7	52.9	51.9	51.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2- Landfill SP11F-01 25-Mar-2026	S2- Landfill SP11F-02 25-Mar-2026	S2- Landfill SP11G-01 25-Mar-2026	S2- Landfill SP11G-02 25-Mar-2026	S2- Landfill SP11H-01 25-Mar-2026
Lab Number:		4153080.11	4153080.12	4153080.13	4153080.14	4153080.15
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Amosite (Brown Asbestos), Chrysotile (White Asbestos) and Crocidolite (Blue Asbestos) detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	ACM debris	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	0.003	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	0.003	< 0.001
As Received Weight	g	653.3	757.2	615.5	657.1	744.0
Dry Weight	g	565.2	654.9	532.9	548.5	613.0
Moisture*	%	13	14	13	17	18
Sample Fraction >10mm	g dry wt	95.9	236.1	121.3	112.9	118.2
Sample Fraction <10mm to >2mm	g dry wt	184.0	170.0	170.8	186.2	167.6
Sample Fraction <2mm	g dry wt	284.0	247.6	239.9	248.5	326.0
<2mm Subsample Weight	g dry wt	54.0	52.4	51.7	52.6	54.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	0.01839	< 0.00001

Sample Name:		S2- Landfill SP11H-02 25-Mar-2026	S2- Landfill SP11I-01 25-Mar-2026	S2- Landfill SP11I-02 25-Mar-2026	S2- Landfill SP11J-01 25-Mar-2026	S2- Landfill SP11J-02 25-Mar-2026
Lab Number:		4153080.16	4153080.17	4153080.18	4153080.19	4153080.20
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Sample Type: Soil						
Sample Name:		S2- Landfill SP11H-02 25-Mar-2026	S2- Landfill SP11I-01 25-Mar-2026	S2- Landfill SP11I-02 25-Mar-2026	S2- Landfill SP11J-01 25-Mar-2026	S2- Landfill SP11J-02 25-Mar-2026
Lab Number:		4153080.16	4153080.17	4153080.18	4153080.19	4153080.20
As Received Weight	g	741.4	670.0	670.0	708.7	720.9
Dry Weight	g	603.4	557.1	571.1	598.8	624.2
Moisture*	%	19	17	15	16	13
Sample Fraction >10mm	g dry wt	99.3	73.3	76.5	96.4	183.8
Sample Fraction <10mm to >2mm	g dry wt	165.0	215.2	215.1	192.9	181.9
Sample Fraction <2mm	g dry wt	337.8	268.0	278.2	308.7	257.5
<2mm Subsample Weight	g dry wt	50.5	51.3	56.6	53.2	51.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2- Landfill SP11K-01 25-Mar-2026	S2- Landfill SP11K-02 25-Mar-2026	S2- Landfill SP11L-01 25-Mar-2026	S2- Landfill SP11L-02 25-Mar-2026	S2- Landfill SP11M-01 25-Mar-2026
Lab Number:		4153080.21	4153080.22	4153080.23	4153080.24	4153080.25
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	667.2	690.5	712.2	773.0	715.0
Dry Weight	g	550.6	575.7	584.6	634.8	590.8
Moisture*	%	17	17	18	18	17
Sample Fraction >10mm	g dry wt	70.0	131.1	179.4	142.0	61.1
Sample Fraction <10mm to >2mm	g dry wt	204.4	164.1	142.2	152.2	193.8
Sample Fraction <2mm	g dry wt	275.1	279.1	262.3	338.7	335.7
<2mm Subsample Weight	g dry wt	51.9	54.1	53.0	51.8	58.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2- Landfill SP11M-02 25-Mar-2026	S2- Landfill SP11N-01 25-Mar-2026	S2- Landfill SP11N-02 25-Mar-2026
Lab Number:		4153080.26	4153080.27	4153080.28
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001
As Received Weight	g	729.3	692.2	704.4
Dry Weight	g	596.0	565.7	597.0
Moisture*	%	18	18	15

Sample Type: Soil				
Sample Name:		S2- Landfill SP11M-02 25-Mar-2026	S2- Landfill SP11N-01 25-Mar-2026	S2- Landfill SP11N-02 25-Mar-2026
Lab Number:		4153080.26	4153080.27	4153080.28
Sample Fraction >10mm	g dry wt	134.9	122.3	198.6
Sample Fraction <10mm to >2mm	g dry wt	190.5	178.8	153.1
Sample Fraction <2mm	g dry wt	269.4	263.8	244.5
<2mm Subsample Weight	g dry wt	52.2	54.9	51.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.

<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-28
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-28
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-28
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-28
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-28
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-28
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-28
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-28

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-28
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-28
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-28
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-28
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-28
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-28
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-28

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

Testing was completed on 30-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Belinda Hughes BSc, PGDipSci
Laboratory Technician - Asbestos

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4153079	SPV1
Contact:	Nathan Cash	Date Received:	25-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	30-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 11	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP11A-01 25-Mar-2026	S2 - Landfill SP11A-02 25-Mar-2026	S2 - Landfill SP11B-01 25-Mar-2026	S2 - Landfill SP11B-02 25-Mar-2026	S2 - Landfill SP11C-01 25-Mar-2026
Lab Number:	4153079.1	4153079.2	4153079.3	4153079.4	4153079.5

Individual Tests

Ash*	g/100g dry wt	92	-	92	-	93
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	13	12	10	11	11
Total Recoverable Cadmium	mg/kg dry wt	0.41	0.47	0.34	0.35	0.30
Total Recoverable Chromium	mg/kg dry wt	25	19	19	19	18
Total Recoverable Copper	mg/kg dry wt	31	45	28	30	26
Total Recoverable Lead	mg/kg dry wt	77	81	65	81	63
Total Recoverable Nickel	mg/kg dry wt	13	11	13	11	11
Total Recoverable Zinc	mg/kg dry wt	320	350	300	290	250

Sample Name:	S2 - Landfill SP11C-02 25-Mar-2026	S2 - Landfill SP11D-01 25-Mar-2026	S2 - Landfill SP11D-02 25-Mar-2026	S2 - Landfill SP11E-01 25-Mar-2026	S2 - Landfill SP11E-02 25-Mar-2026
Lab Number:	4153079.6	4153079.7	4153079.8	4153079.9	4153079.10

Individual Tests

Ash*	g/100g dry wt	-	94	-	94	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	11	10	10	16	9
Total Recoverable Cadmium	mg/kg dry wt	0.33	0.32	0.46	0.33	0.26
Total Recoverable Chromium	mg/kg dry wt	19	21	19	17	17
Total Recoverable Copper	mg/kg dry wt	26	26	32	35	25
Total Recoverable Lead	mg/kg dry wt	250	81	136	83	97
Total Recoverable Nickel	mg/kg dry wt	13	12	12	21	11
Total Recoverable Zinc	mg/kg dry wt	260	280	410	330	240

Sample Name:	S2 - Landfill SP11F-01 25-Mar-2026	S2 - Landfill SP11F-02 25-Mar-2026	S2 - Landfill SP11G-01 25-Mar-2026	S2 - Landfill SP11G-02 25-Mar-2026	S2 - Landfill SP11H-01 25-Mar-2026
Lab Number:	4153079.11	4153079.12	4153079.13	4153079.14	4153079.15

Individual Tests

Ash*	g/100g dry wt	93	-	93	-	92
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	11	11	12	11	11
Total Recoverable Cadmium	mg/kg dry wt	0.35	0.32	0.38	0.35	0.28
Total Recoverable Chromium	mg/kg dry wt	19	17	18	20	17
Total Recoverable Copper	mg/kg dry wt	30	32	31	30	24
Total Recoverable Lead	mg/kg dry wt	67	62	280	94	58
Total Recoverable Nickel	mg/kg dry wt	11	11	12	12	11



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Sample Type: Soil						
Sample Name:		S2 - Landfill SP11F-01 25-Mar-2026	S2 - Landfill SP11F-02 25-Mar-2026	S2 - Landfill SP11G-01 25-Mar-2026	S2 - Landfill SP11G-02 25-Mar-2026	S2 - Landfill SP11H-01 25-Mar-2026
Lab Number:		4153079.11	4153079.12	4153079.13	4153079.14	4153079.15
Heavy Metals, Screen Level						
Total Recoverable Zinc	mg/kg dry wt	300	270	330	310	250

Sample Name:		S2 - Landfill SP11H-02 25-Mar-2026	S2 - Landfill SP11J-01 25-Mar-2026	S2 - Landfill SP11J-02 25-Mar-2026	S2 - Landfill SP11K-01 25-Mar-2026	S2 - Landfill SP11K-02 25-Mar-2026
Lab Number:		4153079.16	4153079.17	4153079.18	4153079.19	4153079.20

Individual Tests						
Ash*	g/100g dry wt	-	93	-	93	-

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	10	9	10	11
Total Recoverable Cadmium	mg/kg dry wt	0.38	0.30	0.31	0.30	0.33
Total Recoverable Chromium	mg/kg dry wt	17	17	17	18	18
Total Recoverable Copper	mg/kg dry wt	37	26	29	28	32
Total Recoverable Lead	mg/kg dry wt	68	64	71	74	71
Total Recoverable Nickel	mg/kg dry wt	11	11	11	11	11
Total Recoverable Zinc	mg/kg dry wt	280	270	260	270	340

Sample Name:		S2 - Landfill SP11L-01 25-Mar-2026	S2 - Landfill SP11L-02 25-Mar-2026	S2 - Landfill SP11M-01 25-Mar-2026	S2 - Landfill SP11M-02 25-Mar-2026	S2 - Landfill SP11N-01 25-Mar-2026
Lab Number:		4153079.21	4153079.22	4153079.23	4153079.24	4153079.25

Individual Tests						
Ash*	g/100g dry wt	94	-	94	-	94

Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	11	7	9	9	11
Total Recoverable Cadmium	mg/kg dry wt	0.30	0.24	0.28	0.25	0.43
Total Recoverable Chromium	mg/kg dry wt	18	14	17	16	18
Total Recoverable Copper	mg/kg dry wt	40	20	70	23	30
Total Recoverable Lead	mg/kg dry wt	61	49	68	58	65
Total Recoverable Nickel	mg/kg dry wt	11	10	11	11	12
Total Recoverable Zinc	mg/kg dry wt	240	210	280	240	330

Sample Name:		S2 - Landfill SP11N-02 25-Mar-2026	S2 - Landfill SP11I-01 25-Mar-2026	S2 - Landfill SP11I-02 25-Mar-2026
Lab Number:		4153079.26	4153079.27	4153079.28

Individual Tests				
Ash*	g/100g dry wt	-	93	-

Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	10	9	10
Total Recoverable Cadmium	mg/kg dry wt	0.33	0.32	0.30
Total Recoverable Chromium	mg/kg dry wt	17	18	18
Total Recoverable Copper	mg/kg dry wt	25	35	28
Total Recoverable Lead	mg/kg dry wt	70	69	69
Total Recoverable Nickel	mg/kg dry wt	11	11	11
Total Recoverable Zinc	mg/kg dry wt	310	270	250

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
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	1-28

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27

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

Testing was completed between 26-Mar-2026 and 30-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Ara Heron BSc (Tech)
Client Services Manager - Environmental

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4177515	A2Pv2
Contact:	Nathan Cash	Date Received:	14-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	17-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 12	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP12A-01 13-Apr-2026	S2 - Landfill SP12A-02 13-Apr-2026	S2 - Landfill SP12A-03 13-Apr-2026	S2 - Landfill SP12B-01 13-Apr-2026	S2 - Landfill SP12B-02 13-Apr-2026
Lab Number:	4177515.1	4177515.2	4177515.3	4177515.4	4177515.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 674.8	g 665.2	g 707.6	g 683.1	g 841.8
Dry Weight	g 570.8	g 537.6	g 574.2	g 573.1	g 662.1
Moisture*	% 15	% 19	% 19	% 16	% 21
Sample Fraction >10mm	g dry wt 99.5	g dry wt 81.5	g dry wt 81.2	g dry wt 91.9	g dry wt 56.4
Sample Fraction <10mm to >2mm	g dry wt 174.2	g dry wt 146.5	g dry wt 157.6	g dry wt 147.0	g dry wt 188.3
Sample Fraction <2mm	g dry wt 296.3	g dry wt 308.3	g dry wt 334.5	g dry wt 333.4	g dry wt 416.0
<2mm Subsample Weight	g dry wt 52.6	g dry wt 56.6	g dry wt 55.6	g dry wt 56.6	g dry wt 55.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2 - Landfill SP12B-03 13-Apr-2026	S2 - Landfill SP12C-01 13-Apr-2026	S2 - Landfill SP12C-02 13-Apr-2026	S2 - Landfill SP12C-03 13-Apr-2026	S2 - Landfill SP12D-01 13-Apr-2026
Lab Number:	4177515.6	4177515.7	4177515.8	4177515.9	4177515.10
Asbestos Presence / Absence	Amosite (Brown Asbestos), Chrysotile (White Asbestos) and Crocidolite (Blue Asbestos) detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	ACM debris	ACM debris	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w 0.004	% w/w 0.002	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001



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Sample Type: Soil					
Sample Name:	S2 - Landfill SP12B-03 13-Apr-2026	S2 - Landfill SP12C-01 13-Apr-2026	S2 - Landfill SP12C-02 13-Apr-2026	S2 - Landfill SP12C-03 13-Apr-2026	S2 - Landfill SP12D-01 13-Apr-2026
Lab Number:	4177515.6	4177515.7	4177515.8	4177515.9	4177515.10
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w 0.004	0.002	< 0.001	< 0.001	< 0.001
As Received Weight	g 775.5	709.9	747.6	747.5	663.4
Dry Weight	g 642.2	560.1	597.0	617.8	535.9
Moisture*	% 17	21	20	17	19
Sample Fraction >10mm	g dry wt 107.4	94.4	131.0	93.1	64.7
Sample Fraction <10mm to >2mm	g dry wt 181.9	141.0	153.8	166.3	142.0
Sample Fraction <2mm	g dry wt 352.0	323.0	311.2	357.2	328.1
<2mm Subsample Weight	g dry wt 50.6	54.9	57.6	53.1	53.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt 0.02875	0.00900	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2 - Landfill SP12D-02 13-Apr-2026	S2 - Landfill SP12D-03 13-Apr-2026	S2 - Landfill SP12E-01 13-Apr-2026	S2 - Landfill SP12E-02 13-Apr-2026	S2 - Landfill SP12E-03 13-Apr-2026
Lab Number:	4177515.11	4177515.12	4177515.13	4177515.14	4177515.15
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g 738.8	749.4	705.9	777.8	766.2
Dry Weight	g 595.7	603.0	563.5	642.8	643.8
Moisture*	% 19	20	20	17	16
Sample Fraction >10mm	g dry wt 78.8	59.3	40.5	107.3	149.9
Sample Fraction <10mm to >2mm	g dry wt 177.0	210.6	201.0	174.3	157.8
Sample Fraction <2mm	g dry wt 337.8	331.8	320.4	360.0	335.1
<2mm Subsample Weight	g dry wt 51.4	50.0	50.9	54.6	52.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2 - Landfill SP12F-01 13-Apr-2026	S2 - Landfill SP12F-02 13-Apr-2026	S2 - Landfill SP12F-03 13-Apr-2026	S2 - Landfill SP12G-01 13-Apr-2026	S2 - Landfill SP12G-02 13-Apr-2026
Lab Number:	4177515.16	4177515.17	4177515.18	4177515.19	4177515.20
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Sample Type: Soil						
Sample Name:		S2 - Landfill SP12F-01 13-Apr-2026	S2 - Landfill SP12F-02 13-Apr-2026	S2 - Landfill SP12F-03 13-Apr-2026	S2 - Landfill SP12G-01 13-Apr-2026	S2 - Landfill SP12G-02 13-Apr-2026
Lab Number:		4177515.16	4177515.17	4177515.18	4177515.19	4177515.20
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	757.7	784.9	792.6	745.3	771.8
Dry Weight	g	610.1	646.4	643.3	595.0	625.7
Moisture*	%	19	18	19	20	19
Sample Fraction >10mm	g dry wt	81.2	106.5	98.6	69.0	88.5
Sample Fraction <10mm to >2mm	g dry wt	169.7	192.9	196.8	169.1	180.0
Sample Fraction <2mm	g dry wt	357.7	345.5	346.0	355.9	353.8
<2mm Subsample Weight	g dry wt	51.6	53.1	53.7	54.7	51.9
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP12G-03 13-Apr-2026	S2 - Landfill SP12H-01 13-Apr-2026	S2 - Landfill SP12H-02 13-Apr-2026	S2 - Landfill SP12H-03 13-Apr-2026	S2 - Landfill SP12I-01 13-Apr-2026
Lab Number:		4177515.21	4177515.22	4177515.23	4177515.24	4177515.25
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	666.6	692.6	785.8	775.9	752.6
Dry Weight	g	536.7	558.1	625.4	618.6	600.8
Moisture*	%	19	19	20	20	20
Sample Fraction >10mm	g dry wt	118.3	87.9	66.9	86.3	45.5
Sample Fraction <10mm to >2mm	g dry wt	134.6	188.9	200.1	160.9	170.6
Sample Fraction <2mm	g dry wt	281.0	280.2	356.6	369.2	381.9
<2mm Subsample Weight	g dry wt	50.0	53.2	51.4	53.9	52.7
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP12I-02 13-Apr-2026	S2 - Landfill SP12I-03 13-Apr-2026	S2 - Landfill SP12J-01 13-Apr-2026	S2 - Landfill SP12J-02 13-Apr-2026	S2 - Landfill SP12J-03 13-Apr-2026
Lab Number:		4177515.26	4177515.27	4177515.28	4177515.29	4177515.30
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	826.4	715.0	819.5	743.7	790.5

Sample Type: Soil						
Sample Name:		S2 - Landfill SP12I-02 13-Apr-2026	S2 - Landfill SP12I-03 13-Apr-2026	S2 - Landfill SP12J-01 13-Apr-2026	S2 - Landfill SP12J-02 13-Apr-2026	S2 - Landfill SP12J-03 13-Apr-2026
Lab Number:		4177515.26	4177515.27	4177515.28	4177515.29	4177515.30
Dry Weight	g	668.6	580.4	679.5	619.3	654.1
Moisture*	%	19	19	17	17	17
Sample Fraction >10mm		g dry wt	79.5	143.0	93.2	105.8
Sample Fraction <10mm to >2mm		g dry wt	195.5	143.5	211.0	165.2
Sample Fraction <2mm		g dry wt	390.0	292.2	373.8	346.2
<2mm Subsample Weight		g dry wt	52.6	50.8	57.3	53.1
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP12K-01 13-Apr-2026	S2 - Landfill SP12K-02 13-Apr-2026	S2 - Landfill SP12K-03 13-Apr-2026	S2 - Landfill SP12L-01 13-Apr-2026	S2 - Landfill SP12L-02 13-Apr-2026
Lab Number:		4177515.31	4177515.32	4177515.33	4177515.34	4177515.35
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	758.4	790.5	669.9	755.7
Dry Weight		g	617.2	641.8	544.9	629.2
Moisture*		%	19	19	17	17
Sample Fraction >10mm		g dry wt	76.6	143.5	109.3	117.4
Sample Fraction <10mm to >2mm		g dry wt	159.6	152.0	161.5	176.7
Sample Fraction <2mm		g dry wt	379.8	345.2	273.0	334.2
<2mm Subsample Weight		g dry wt	51.0	51.0	53.0	59.3
Weight of Asbestos in ACM (Non-Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*		g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP12L-03 13-Apr-2026	S2 - Landfill SP12M-01 13-Apr-2026	S2 - Landfill SP12M-02 13-Apr-2026	S2 - Landfill SP12M-03 13-Apr-2026	S2 - Landfill SP12N-01 13-Apr-2026
Lab Number:		4177515.36	4177515.37	4177515.38	4177515.39	4177515.40
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Chrysotile (White Asbestos) detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	ACM debris	-
Asbestos in ACM as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*		% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight		g	827.2	784.4	763.2	750.6
Dry Weight		g	663.2	660.3	624.8	619.1
Moisture*		%	20	16	18	16

Sample Type: Soil						
Sample Name:		S2 - Landfill SP12L-03 13-Apr-2026	S2 - Landfill SP12M-01 13-Apr-2026	S2 - Landfill SP12M-02 13-Apr-2026	S2 - Landfill SP12M-03 13-Apr-2026	S2 - Landfill SP12N-01 13-Apr-2026
Lab Number:		4177515.36	4177515.37	4177515.38	4177515.39	4177515.40
Sample Fraction >10mm	g dry wt	80.7	142.2	100.1	143.1	79.1
Sample Fraction <10mm to >2mm	g dry wt	185.6	150.3	147.8	128.6	174.6
Sample Fraction <2mm	g dry wt	395.4	366.4	375.9	346.1	385.6
<2mm Subsample Weight	g dry wt	59.7	58.0	59.2	57.8	56.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	0.00073	< 0.00001

Sample Name:		S2 - Landfill SP12N-02 13-Apr-2026	S2 - Landfill SP12N-03 13-Apr-2026	S2 - Landfill SP12O-01 13-Apr-2026	S2 - Landfill SP12O-02 13-Apr-2026	S2 - Landfill SP12O-03 13-Apr-2026
Lab Number:		4177515.41	4177515.42	4177515.43	4177515.44	4177515.45
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	791.6	747.6	784.7	807.1	821.2
Dry Weight	g	648.6	615.7	635.2	646.9	652.3
Moisture*	%	18	18	19	20	21
Sample Fraction >10mm	g dry wt	139.4	136.6	136.2	74.8	122.7
Sample Fraction <10mm to >2mm	g dry wt	156.9	123.3	137.1	163.4	146.3
Sample Fraction <2mm	g dry wt	350.8	354.4	360.4	407.3	381.6
<2mm Subsample Weight	g dry wt	56.2	55.3	52.0	56.5	58.8
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP12P-01 13-Apr-2026	S2 - Landfill SP12P-02 13-Apr-2026	S2 - Landfill SP12P-03 13-Apr-2026	S2 - Landfill SP12Q-01 13-Apr-2026	S2 - Landfill SP12Q-02 13-Apr-2026
Lab Number:		4177515.46	4177515.47	4177515.48	4177515.49	4177515.50
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	789.7	744.1	658.4	712.7	787.6
Dry Weight	g	650.2	600.9	533.1	589.7	641.5
Moisture*	%	18	19	19	17	19
Sample Fraction >10mm	g dry wt	117.9	74.1	97.3	157.3	126.5

Sample Type: Soil						
Sample Name:		S2 - Landfill SP12P-01 13-Apr-2026	S2 - Landfill SP12P-02 13-Apr-2026	S2 - Landfill SP12P-03 13-Apr-2026	S2 - Landfill SP12Q-01 13-Apr-2026	S2 - Landfill SP12Q-02 13-Apr-2026
Lab Number:		4177515.46	4177515.47	4177515.48	4177515.49	4177515.50
Sample Fraction <10mm to >2mm	g dry wt	163.0	146.4	105.4	126.5	149.7
Sample Fraction <2mm	g dry wt	367.6	378.5	329.3	304.5	364.0
<2mm Subsample Weight	g dry wt	50.2	56.1	57.7	55.4	58.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP12Q-03 13-Apr-2026	S2 - Landfill SP12R-01 13-Apr-2026	S2 - Landfill SP12R-02 13-Apr-2026	S2 - Landfill SP12R-03 13-Apr-2026
Lab Number:		4177515.51	4177515.52	4177515.53	4177515.54
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	748.1	712.5	811.3	757.8
Dry Weight	g	619.2	595.5	652.9	600.5
Moisture*	%	17	16	20	21
Sample Fraction >10mm	g dry wt	152.9	145.1	116.2	51.8
Sample Fraction <10mm to >2mm	g dry wt	151.4	137.2	137.5	137.9
Sample Fraction <2mm	g dry wt	313.6	311.8	397.6	409.6
<2mm Subsample Weight	g dry wt	58.7	58.9	56.6	57.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-54
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-54
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-54
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-54
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-54
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-54
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-54
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-54
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-54
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-54
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-54
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-54
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-54
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-54
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-54

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

Testing was completed between 16-Apr-2026 and 17-Apr-2026. 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.



Gringo Carizon BEng, Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 4

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4177516	SPV2
Contact:	Nathan Cash	Date Received:	14-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	20-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Stockpile 12	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP12A-01 13-Apr-2026	S2 - Landfill SP12A-02 13-Apr-2026	S2 - Landfill SP12A-03 13-Apr-2026	S2 - Landfill SP12B-01 13-Apr-2026	S2 - Landfill SP12B-02 13-Apr-2026
Lab Number:	4177516.1	4177516.2	4177516.3	4177516.4	4177516.5

Individual Tests

Ash*	g/100g dry wt	94	-	-	93	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	9	9	13	9	10
Total Recoverable Cadmium	mg/kg dry wt	0.33	0.41	0.37	0.30	0.59
Total Recoverable Chromium	mg/kg dry wt	18	18	22	18	18
Total Recoverable Copper	mg/kg dry wt	29	27	28	27	32
Total Recoverable Lead	mg/kg dry wt	70	98	88	94	124
Total Recoverable Nickel	mg/kg dry wt	11	12	11	11	13
Total Recoverable Zinc	mg/kg dry wt	570	360	320	310	460

Sample Name:	S2 - Landfill SP12B-03 13-Apr-2026	S2 - Landfill SP12C-01 13-Apr-2026	S2 - Landfill SP12C-02 13-Apr-2026	S2 - Landfill SP12C-03 13-Apr-2026	S2 - Landfill SP12D-01 13-Apr-2026
Lab Number:	4177516.6	4177516.7	4177516.8	4177516.9	4177516.10

Individual Tests

Ash*	g/100g dry wt	-	94	-	-	93
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	8	9	9	9	10
Total Recoverable Cadmium	mg/kg dry wt	0.37	0.35	0.41	0.55	0.38
Total Recoverable Chromium	mg/kg dry wt	17	18	17	16	25
Total Recoverable Copper	mg/kg dry wt	27	29	48	31	62
Total Recoverable Lead	mg/kg dry wt	85	83	102	85	73
Total Recoverable Nickel	mg/kg dry wt	11	11	14	14	11
Total Recoverable Zinc	mg/kg dry wt	330	310	400	590	330

Sample Name:	S2 - Landfill SP12D-02 13-Apr-2026	S2 - Landfill SP12D-03 13-Apr-2026	S2 - Landfill SP12E-01 13-Apr-2026	S2 - Landfill SP12E-02 13-Apr-2026	S2 - Landfill SP12E-03 13-Apr-2026
Lab Number:	4177516.11	4177516.12	4177516.13	4177516.14	4177516.15

Individual Tests

Ash*	g/100g dry wt	-	-	93	-	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	10	13	10	10	9
Total Recoverable Cadmium	mg/kg dry wt	0.37	0.39	0.40	0.32	0.28
Total Recoverable Chromium	mg/kg dry wt	18	27	18	18	16
Total Recoverable Copper	mg/kg dry wt	32	36	30	27	31
Total Recoverable Lead	mg/kg dry wt	66	76	110	70	61
Total Recoverable Nickel	mg/kg dry wt	12	12	12	11	11



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Sample Type: Soil						
Sample Name:		S2 - Landfill SP12D-02 13-Apr-2026	S2 - Landfill SP12D-03 13-Apr-2026	S2 - Landfill SP12E-01 13-Apr-2026	S2 - Landfill SP12E-02 13-Apr-2026	S2 - Landfill SP12E-03 13-Apr-2026
Lab Number:		4177516.11	4177516.12	4177516.13	4177516.14	4177516.15
Heavy Metals, Screen Level						
Total Recoverable Zinc	mg/kg dry wt	310	310	350	290	280
Sample Name:		S2 - Landfill SP12F-01 13-Apr-2026	S2 - Landfill SP12F-02 13-Apr-2026	S2 - Landfill SP12F-03 13-Apr-2026	S2 - Landfill SP12G-01 13-Apr-2026	S2 - Landfill SP12G-02 13-Apr-2026
Lab Number:		4177516.16	4177516.17	4177516.18	4177516.19	4177516.20
Individual Tests						
Ash*	g/100g dry wt	93	-	-	93	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	10	11	12	8	9
Total Recoverable Cadmium	mg/kg dry wt	0.29	0.50	0.42	0.34	0.46
Total Recoverable Chromium	mg/kg dry wt	17	19	18	17	18
Total Recoverable Copper	mg/kg dry wt	27	33	34	28	29
Total Recoverable Lead	mg/kg dry wt	69	81	84	68	87
Total Recoverable Nickel	mg/kg dry wt	11	13	11	11	11
Total Recoverable Zinc	mg/kg dry wt	260	340	630	350	360
Sample Name:		S2 - Landfill SP12G-03 13-Apr-2026	S2 - Landfill SP12H-01 13-Apr-2026	S2 - Landfill SP12H-02 13-Apr-2026	S2 - Landfill SP12H-03 13-Apr-2026	S2 - Landfill SP12I-01 13-Apr-2026
Lab Number:		4177516.21	4177516.22	4177516.23	4177516.24	4177516.25
Individual Tests						
Ash*	g/100g dry wt	-	93	-	-	92
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	11	8	11	10	8
Total Recoverable Cadmium	mg/kg dry wt	0.49	0.41	0.53	0.51	0.55
Total Recoverable Chromium	mg/kg dry wt	18	17	18	19	18
Total Recoverable Copper	mg/kg dry wt	37	29	32	31	44
Total Recoverable Lead	mg/kg dry wt	85	82	93	330	104
Total Recoverable Nickel	mg/kg dry wt	13	11	13	11	12
Total Recoverable Zinc	mg/kg dry wt	780	370	440	480	390
Sample Name:		S2 - Landfill SP12I-02 13-Apr-2026	S2 - Landfill SP12I-03 13-Apr-2026	S2 - Landfill SP12J-01 13-Apr-2026	S2 - Landfill SP12J-02 13-Apr-2026	S2 - Landfill SP12J-03 13-Apr-2026
Lab Number:		4177516.26	4177516.27	4177516.28	4177516.29	4177516.30
Individual Tests						
Ash*	g/100g dry wt	-	-	93	-	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	7	10	10	12
Total Recoverable Cadmium	mg/kg dry wt	0.44	0.41	0.40	0.55	0.39
Total Recoverable Chromium	mg/kg dry wt	17	16	18	18	21
Total Recoverable Copper	mg/kg dry wt	28	26	29	30	30
Total Recoverable Lead	mg/kg dry wt	78	71	103	88	85
Total Recoverable Nickel	mg/kg dry wt	12	11	12	12	12
Total Recoverable Zinc	mg/kg dry wt	400	390	330	450	330
Sample Name:		S2 - Landfill SP12K-01 13-Apr-2026	S2 - Landfill SP12K-02 13-Apr-2026	S2 - Landfill SP12K-03 13-Apr-2026	S2 - Landfill SP12L-01 13-Apr-2026	S2 - Landfill SP12L-02 13-Apr-2026
Lab Number:		4177516.31	4177516.32	4177516.33	4177516.34	4177516.35
Individual Tests						
Ash*	g/100g dry wt	91	-	-	93	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	10	9	11	8	12
Total Recoverable Cadmium	mg/kg dry wt	0.45	0.49	0.48	0.51	0.47
Total Recoverable Chromium	mg/kg dry wt	18	18	23	17	19
Total Recoverable Copper	mg/kg dry wt	31	30	33	35	31

Sample Type: Soil						
Sample Name:		S2 - Landfill SP12K-01 13-Apr-2026	S2 - Landfill SP12K-02 13-Apr-2026	S2 - Landfill SP12K-03 13-Apr-2026	S2 - Landfill SP12L-01 13-Apr-2026	S2 - Landfill SP12L-02 13-Apr-2026
Lab Number:		4177516.31	4177516.32	4177516.33	4177516.34	4177516.35
Heavy Metals, Screen Level						
Total Recoverable Lead	mg/kg dry wt	87	93	106	85	101
Total Recoverable Nickel	mg/kg dry wt	13	13	13	13	13
Total Recoverable Zinc	mg/kg dry wt	420	460	420	390	420
Sample Name:		S2 - Landfill SP12L-03 13-Apr-2026	S2 - Landfill SP12M-01 13-Apr-2026	S2 - Landfill SP12M-02 13-Apr-2026	S2 - Landfill SP12M-03 13-Apr-2026	S2 - Landfill SP12N-01 13-Apr-2026
Lab Number:		4177516.36	4177516.37	4177516.38	4177516.39	4177516.40
Individual Tests						
Ash*	g/100g dry wt	-	93	-	-	93
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	13	8	8	8	9
Total Recoverable Cadmium	mg/kg dry wt	0.59	0.33	0.35	0.37	0.36
Total Recoverable Chromium	mg/kg dry wt	19	19	50	17	17
Total Recoverable Copper	mg/kg dry wt	37	137	37	26	26
Total Recoverable Lead	mg/kg dry wt	106	68	65	74	67
Total Recoverable Nickel	mg/kg dry wt	16	13	15	11	11
Total Recoverable Zinc	mg/kg dry wt	530	320	290	380	300
Sample Name:		S2 - Landfill SP12N-02 13-Apr-2026	S2 - Landfill SP12N-03 13-Apr-2026	S2 - Landfill SP12O-01 13-Apr-2026	S2 - Landfill SP12O-02 13-Apr-2026	S2 - Landfill SP12O-03 13-Apr-2026
Lab Number:		4177516.41	4177516.42	4177516.43	4177516.44	4177516.45
Individual Tests						
Ash*	g/100g dry wt	-	-	93	-	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	12	11	10	10	10
Total Recoverable Cadmium	mg/kg dry wt	0.35	0.34	0.45	0.46	0.46
Total Recoverable Chromium	mg/kg dry wt	22	16	18	17	17
Total Recoverable Copper	mg/kg dry wt	30	28	35	30	29
Total Recoverable Lead	mg/kg dry wt	132	67	100	72	95
Total Recoverable Nickel	mg/kg dry wt	11	11	13	12	12
Total Recoverable Zinc	mg/kg dry wt	330	340	390	460	440
Sample Name:		S2 - Landfill SP12P-01 13-Apr-2026	S2 - Landfill SP12P-02 13-Apr-2026	S2 - Landfill SP12P-03 13-Apr-2026	S2 - Landfill SP12Q-01 13-Apr-2026	S2 - Landfill SP12Q-02 13-Apr-2026
Lab Number:		4177516.46	4177516.47	4177516.48	4177516.49	4177516.50
Individual Tests						
Ash*	g/100g dry wt	92	-	-	92	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	9	9	9	10	8
Total Recoverable Cadmium	mg/kg dry wt	0.54	0.43	0.40	0.40	0.44
Total Recoverable Chromium	mg/kg dry wt	16	18	17	19	19
Total Recoverable Copper	mg/kg dry wt	29	39	29	31	28
Total Recoverable Lead	mg/kg dry wt	80	84	84	80	80
Total Recoverable Nickel	mg/kg dry wt	12	19	12	13	12
Total Recoverable Zinc	mg/kg dry wt	420	450	380	350	390
Sample Name:		S2 - Landfill SP12Q-03 13-Apr-2026	S2 - Landfill SP12R-01 13-Apr-2026	S2 - Landfill SP12R-02 13-Apr-2026	S2 - Landfill SP12R-03 13-Apr-2026	
Lab Number:		4177516.51	4177516.52	4177516.53	4177516.54	
Individual Tests						
Ash*	g/100g dry wt	-	93	-	-	
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	10	8	9	9	
Total Recoverable Cadmium	mg/kg dry wt	0.51	0.61	0.52	0.40	
Total Recoverable Chromium	mg/kg dry wt	18	20	17	19	

Sample Type: Soil				
Sample Name:		S2 - Landfill SP12Q-03 13-Apr-2026	S2 - Landfill SP12R-01 13-Apr-2026	S2 - Landfill SP12R-02 13-Apr-2026
Lab Number:		4177516.51	4177516.52	4177516.53
Heavy Metals, Screen Level				
Total Recoverable Copper	mg/kg dry wt	31	36	32
Total Recoverable Lead	mg/kg dry wt	72	75	78
Total Recoverable Nickel	mg/kg dry wt	12	13	12
Total Recoverable Zinc	mg/kg dry wt	670	540	410

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
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	1-54
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52

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

Testing was completed between 15-Apr-2026 and 20-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4179408	A2Pv1
Contact:	Nathan Cash	Date Received:	15-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	16-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Stockpile 13	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP13A-01 15-Apr-2026	S2-Landfill SP13A-02 15-Apr-2026	S2-Landfill SP13A-03 15-Apr-2026	S2-Landfill SP13B-01 15-Apr-2026	S2-Landfill SP13B-02 15-Apr-2026
Lab Number:	4179408.1	4179408.2	4179408.3	4179408.4	4179408.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 786.9	g 778.7	g 744.1	g 813.9	g 873.3
Dry Weight	g 674.2	g 653.8	g 603.2	g 701.3	g 740.9
Moisture*	% 14	% 16	% 19	% 14	% 15
Sample Fraction >10mm	g dry wt 163.3	g dry wt 153.9	g dry wt 150.0	g dry wt 188.7	g dry wt 81.6
Sample Fraction <10mm to >2mm	g dry wt 172.9	g dry wt 218.8	g dry wt 156.9	g dry wt 181.0	g dry wt 228.8
Sample Fraction <2mm	g dry wt 336.9	g dry wt 279.8	g dry wt 295.5	g dry wt 330.5	g dry wt 429.2
<2mm Subsample Weight	g dry wt 53.5	g dry wt 50.7	g dry wt 54.0	g dry wt 55.0	g dry wt 52.5
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2-Landfill SP13B-03 15-Apr-2026	S2-Landfill SP13C-01 15-Apr-2026	S2-Landfill SP13C-02 15-Apr-2026	S2-Landfill SP13C-03 15-Apr-2026
Lab Number:	4179408.6	4179408.7	4179408.8	4179408.9
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 740.6	g 804.7	g 723.8	g 709.0
Dry Weight	g 592.0	g 680.6	g 618.4	g 579.0



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Sample Type: Soil				
Sample Name:		S2-Landfill SP13B-03 15-Apr-2026	S2-Landfill SP13C-01 15-Apr-2026	S2-Landfill SP13C-02 15-Apr-2026
Lab Number:		4179408.6	4179408.7	4179408.8
Moisture*	%	20	15	15
Sample Fraction >10mm	g dry wt	112.9	127.0	116.0
Sample Fraction <10mm to >2mm	g dry wt	163.2	216.5	207.0
Sample Fraction <2mm	g dry wt	315.1	335.8	293.3
<2mm Subsample Weight	g dry wt	51.4	55.2	56.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-9
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-9
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-9

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9

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

Testing was completed on 16-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4179407	SPv1
Contact:	Nathan Cash	Date Received:	15-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	20-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Stockpile 13	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP13A-01 15-Apr-2026	S2-Landfill SP13A-02 15-Apr-2026	S2-Landfill SP13A-03 15-Apr-2026	S2-Landfill SP13B-01 15-Apr-2026	S2-Landfill SP13B-02 15-Apr-2026
Lab Number:	4179407.1	4179407.2	4179407.3	4179407.4	4179407.5

Individual Tests

Ash*	g/100g dry wt	95	-	-	95	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	5	6	6	5	6
Total Recoverable Cadmium	mg/kg dry wt	0.28	0.29	0.31	0.20	0.28
Total Recoverable Chromium	mg/kg dry wt	13	14	14	13	15
Total Recoverable Copper	mg/kg dry wt	16	29	28	13	21
Total Recoverable Lead	mg/kg dry wt	56	62	62	49	74
Total Recoverable Nickel	mg/kg dry wt	10	17	10	10	11
Total Recoverable Zinc	mg/kg dry wt	250	290	270	200	310

Sample Name:	S2-Landfill SP13B-03 15-Apr-2026	S2-Landfill SP13C-01 15-Apr-2026	S2-Landfill SP13C-02 15-Apr-2026	S2-Landfill SP13C-03 15-Apr-2026
Lab Number:	4179407.6	4179407.7	4179407.8	4179407.9

Individual Tests

Ash*	g/100g dry wt	-	95	-	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	5	6	9
Total Recoverable Cadmium	mg/kg dry wt	0.31	0.30	0.25	0.25
Total Recoverable Chromium	mg/kg dry wt	16	14	13	16
Total Recoverable Copper	mg/kg dry wt	27	31	17	24
Total Recoverable Lead	mg/kg dry wt	165	90	58	47
Total Recoverable Nickel	mg/kg dry wt	11	12	20	12
Total Recoverable Zinc	mg/kg dry wt	350	270	260	260

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
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
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7



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

Testing was completed between 16-Apr-2026 and 20-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, consisting of a large stylized 'K' followed by the name 'Harrison' in a cursive script.

Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 4

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4183216	A2Pv1
Contact:	Nathan Cash	Date Received:	17-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	21-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Stockpile 14	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP14A-01 17-Apr-2026	S2-Landfill SP14A-02 17-Apr-2026	S2-Landfill SP14A-03 17-Apr-2026	S2-Landfill SP14B-01 17-Apr-2026	S2-Landfill SP14B-02 17-Apr-2026
Lab Number:	4183216.1	4183216.2	4183216.3	4183216.4	4183216.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Amosite (Brown Asbestos), Chrysotile (White Asbestos) and Crocidolite (Blue Asbestos) detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	Fibre cement	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	0.023	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	< 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	< 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	< 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 692.5	g 748.6	g 711.3	g 710.3	g 769.2
Dry Weight	g 565.5	g 598.1	g 576.6	g 566.8	g 642.5
Moisture*	% 18	% 20	% 19	% 20	% 16
Sample Fraction >10mm	g dry wt 34.8	g dry wt 101.2	g dry wt 111.8	g dry wt 65.4	g dry wt 131.9
Sample Fraction <10mm to >2mm	g dry wt 165.0	g dry wt 107.7	g dry wt 167.0	g dry wt 147.2	g dry wt 161.7
Sample Fraction <2mm	g dry wt 364.9	g dry wt 388.4	g dry wt 297.1	g dry wt 353.7	g dry wt 348.3
<2mm Subsample Weight	g dry wt 51.9	g dry wt 54.8	g dry wt 55.8	g dry wt 56.0	g dry wt 57.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt 0.13364	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2-Landfill SP14B-03 17-Apr-2026	S2-Landfill SP14C-01 17-Apr-2026	S2-Landfill SP14C-02 17-Apr-2026	S2-Landfill SP14C-03 17-Apr-2026	S2-Landfill SP14D-01 17-Apr-2026
Lab Number:	4183216.6	4183216.7	4183216.8	4183216.9	4183216.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001



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Sample Type: Soil					
Sample Name:		S2-Landfill SP14B-03 17-Apr-2026	S2-Landfill SP14C-01 17-Apr-2026	S2-Landfill SP14C-02 17-Apr-2026	S2-Landfill SP14C-03 17-Apr-2026
Lab Number:		4183216.6	4183216.7	4183216.8	4183216.9
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	709.3	657.7	699.4	712.4
Dry Weight	g	550.5	531.4	566.5	570.9
Moisture*	%	22	19	19	20
Sample Fraction >10mm	g dry wt	67.5	39.6	79.0	105.0
Sample Fraction <10mm to >2mm	g dry wt	162.2	146.5	177.7	127.5
Sample Fraction <2mm	g dry wt	320.5	345.0	309.2	338.0
<2mm Subsample Weight	g dry wt	50.1	55.7	56.4	55.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2-Landfill SP14D-02 17-Apr-2026	S2-Landfill SP14D-03 17-Apr-2026
Lab Number:		4183216.11	4183216.12
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
As Received Weight	g	698.3	698.2
Dry Weight	g	575.0	560.4
Moisture*	%	18	20
Sample Fraction >10mm	g dry wt	140.6	63.4
Sample Fraction <10mm to >2mm	g dry wt	118.1	139.7
Sample Fraction <2mm	g dry wt	315.8	356.7
<2mm Subsample Weight	g dry wt	51.8	59.5
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-12
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-12
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-12
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-12
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-12
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-12
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-12
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-12
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-12
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-12
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-12

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12

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

Testing was completed on 21-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4183217	SPv1
Contact:	Nathan Cash	Date Received:	17-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	22-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Stockpile 14	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill SP14A-01 17-Apr-2026	S2-Landfill SP14A-02 17-Apr-2026	S2-Landfill SP14A-03 17-Apr-2026	S2-Landfill SP14B-01 17-Apr-2026	S2-Landfill SP14B-02 17-Apr-2026
Lab Number:	4183217.1	4183217.2	4183217.3	4183217.4	4183217.5

Individual Tests

Ash*	g/100g dry wt	92	-	-	93	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	6	8	10	8
Total Recoverable Cadmium	mg/kg dry wt	0.29	0.26	0.47	0.75	0.54
Total Recoverable Chromium	mg/kg dry wt	14	14	18	15	14
Total Recoverable Copper	mg/kg dry wt	21	21	23	33	22
Total Recoverable Lead	mg/kg dry wt	60	61	68	77	106
Total Recoverable Nickel	mg/kg dry wt	10	9	12	11	10
Total Recoverable Zinc	mg/kg dry wt	260	240	360	370	340

Sample Name:	S2-Landfill SP14B-03 17-Apr-2026	S2-Landfill SP14C-01 17-Apr-2026	S2-Landfill SP14C-02 17-Apr-2026	S2-Landfill SP14C-03 17-Apr-2026	S2-Landfill SP14D-01 17-Apr-2026
Lab Number:	4183217.6	4183217.7	4183217.8	4183217.9	4183217.10

Individual Tests

Ash*	g/100g dry wt	-	92	-	-	92
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	9	8	7	6
Total Recoverable Cadmium	mg/kg dry wt	0.32	0.59	0.39	0.24	0.30
Total Recoverable Chromium	mg/kg dry wt	14	15	14	14	14
Total Recoverable Copper	mg/kg dry wt	25	23	23	21	17
Total Recoverable Lead	mg/kg dry wt	60	64	54	47	36
Total Recoverable Nickel	mg/kg dry wt	10	11	10	9	9
Total Recoverable Zinc	mg/kg dry wt	270	370	290	210	210

Sample Name:	S2-Landfill SP14D-02 17-Apr-2026	S2-Landfill SP14D-03 17-Apr-2026
Lab Number:	4183217.11	4183217.12

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	7
Total Recoverable Cadmium	mg/kg dry wt	0.39	0.28
Total Recoverable Chromium	mg/kg dry wt	14	14
Total Recoverable Copper	mg/kg dry wt	22	20
Total Recoverable Lead	mg/kg dry wt	62	53
Total Recoverable Nickel	mg/kg dry wt	10	10
Total Recoverable Zinc	mg/kg dry wt	300	250



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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
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	1-12
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7, 10

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

Testing was completed between 20-Apr-2026 and 22-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Graham Corban MSc Tech (Hons)
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4187695	A2Pv1
Contact:	Nathan Cash	Date Received:	21-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 45798	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Stockpile 15	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP15A-01 21-Apr-2026	S2 - Landfill SP15A-02 21-Apr-2026	S2 - Landfill SP15A-03 21-Apr-2026	S2 - Landfill SP15B-01 21-Apr-2026	S2 - Landfill SP15B-02 21-Apr-2026
Lab Number:	4187695.1	4187695.2	4187695.3	4187695.4	4187695.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 620.6	g 657.3	g 702.3	g 558.8	g 679.8
Dry Weight	g 517.3	g 539.7	g 562.6	g 461.0	g 552.8
Moisture*	% 17	% 18	% 20	% 18	% 19
Sample Fraction >10mm	g dry wt 127.1	g dry wt 62.9	g dry wt 65.7	g dry wt 86.8	g dry wt 86.7
Sample Fraction <10mm to >2mm	g dry wt 160.8	g dry wt 149.5	g dry wt 162.6	g dry wt 124.7	g dry wt 180.6
Sample Fraction <2mm	g dry wt 227.2	g dry wt 326.9	g dry wt 333.7	g dry wt 248.9	g dry wt 283.8
<2mm Subsample Weight	g dry wt 54.9	g dry wt 58.4	g dry wt 51.2	g dry wt 54.8	g dry wt 54.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2 - Landfill SP15B-03 21-Apr-2026	S2 - Landfill SP15C-01 21-Apr-2026	S2 - Landfill SP15C-02 21-Apr-2026	S2 - Landfill SP15C-03 21-Apr-2026
Lab Number:	4187695.6	4187695.7	4187695.8	4187695.9
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 672.2	g 561.2	g 734.2	g 644.4
Dry Weight	g 545.2	g 462.5	g 584.8	g 526.5



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Sample Type: Soil				
Sample Name:		S2 - Landfill SP15B-03 21-Apr-2026	S2 - Landfill SP15C-01 21-Apr-2026	S2 - Landfill SP15C-02 21-Apr-2026
Lab Number:		4187695.6	4187695.7	4187695.8
Moisture*	%	19	18	20
Sample Fraction >10mm	g dry wt	138.2	84.4	73.6
Sample Fraction <10mm to >2mm	g dry wt	136.9	120.9	171.8
Sample Fraction <2mm	g dry wt	269.5	256.4	338.8
<2mm Subsample Weight	g dry wt	52.2	52.9	52.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-9
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-9
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-9

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9

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

Testing was completed on 23-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4187741	SPv1
Contact:	Nathan Cash	Date Received:	21-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	24-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 45798	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Stockpile 15	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP15A-01 21-Apr-2026	S2 - Landfill SP15A-02 21-Apr-2026	S2 - Landfill SP15A-03 21-Apr-2026	S2 - Landfill SP15B-01 21-Apr-2026	S2 - Landfill SP15B-02 21-Apr-2026
Lab Number:	4187741.1	4187741.2	4187741.3	4187741.4	4187741.5

Individual Tests

Ash*	g/100g dry wt	92	-	-	93	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	8	6	7	7
Total Recoverable Cadmium	mg/kg dry wt	0.25	0.40	0.22	0.23	0.22
Total Recoverable Chromium	mg/kg dry wt	15	14	15	16	15
Total Recoverable Copper	mg/kg dry wt	21	20	18	19	18
Total Recoverable Lead	mg/kg dry wt	45	59	39	35	37
Total Recoverable Nickel	mg/kg dry wt	10	9	10	10	10
Total Recoverable Zinc	mg/kg dry wt	186	330	167	187	181

Sample Name:	S2 - Landfill SP15B-03 21-Apr-2026	S2 - Landfill SP15C-01 21-Apr-2026	S2 - Landfill SP15C-02 21-Apr-2026	S2 - Landfill SP15C-03 21-Apr-2026
Lab Number:	4187741.6	4187741.7	4187741.8	4187741.9

Individual Tests

Ash*	g/100g dry wt	-	93	-	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	7	6	6	6
Total Recoverable Cadmium	mg/kg dry wt	0.22	0.35	0.24	0.22
Total Recoverable Chromium	mg/kg dry wt	15	15	15	15
Total Recoverable Copper	mg/kg dry wt	18	19	19	19
Total Recoverable Lead	mg/kg dry wt	37	37	37	35
Total Recoverable Nickel	mg/kg dry wt	10	10	9	10
Total Recoverable Zinc	mg/kg dry wt	230	390	200	192

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
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
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7



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

Testing was completed between 22-Apr-2026 and 24-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, consisting of a large stylized 'K' followed by the name 'Harrison' in a cursive script.

Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4201465	A2Pv1
Contact:	Nathan Cash	Date Received:	02-May-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	06-May-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 45798	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Stockpile 16	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP16A-01 01-May-2026	S2 - Landfill SP16A-02 01-May-2026	S2 - Landfill SP16A-03 01-May-2026	S2 - Landfill SP16B-01 01-May-2026	S2 - Landfill SP16B-02 01-May-2026
Lab Number:	4201465.1	4201465.2	4201465.3	4201465.4	4201465.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 635.0	g 716.5	g 719.2	g 727.6	g 686.8
Dry Weight	g 534.8	g 602.4	g 585.8	g 597.7	g 571.7
Moisture*	% 16	% 16	% 19	% 18	% 17
Sample Fraction >10mm	g dry wt 85.8	g dry wt 108.4	g dry wt 106.2	g dry wt 151.0	g dry wt 116.1
Sample Fraction <10mm to >2mm	g dry wt 164.8	g dry wt 183.1	g dry wt 162.2	g dry wt 174.0	g dry wt 183.4
Sample Fraction <2mm	g dry wt 283.6	g dry wt 310.4	g dry wt 316.7	g dry wt 272.2	g dry wt 271.2
<2mm Subsample Weight	g dry wt 51.8	g dry wt 56.3	g dry wt 55.3	g dry wt 51.4	g dry wt 52.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2 - Landfill SP16B-03 01-May-2026	S2 - Landfill SP16C-01 01-May-2026	S2 - Landfill SP16C-02 01-May-2026	S2 - Landfill SP16C-03 01-May-2026	S2 - Landfill SP16D-01 01-May-2026
Lab Number:	4201465.6	4201465.7	4201465.8	4201465.9	4201465.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 730.0	g 682.0	g 711.4	g 609.0	g 617.2



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Sample Type: Soil						
Sample Name:		S2 - Landfill SP16B-03 01-May-2026	S2 - Landfill SP16C-01 01-May-2026	S2 - Landfill SP16C-02 01-May-2026	S2 - Landfill SP16C-03 01-May-2026	S2 - Landfill SP16D-01 01-May-2026
Lab Number:		4201465.6	4201465.7	4201465.8	4201465.9	4201465.10
Dry Weight	g	593.1	532.2	588.5	444.0	478.8
Moisture*	%	19	22	17	27	22
Sample Fraction >10mm	g dry wt	115.8	80.0	66.0	26.8	131.3
Sample Fraction <10mm to >2mm	g dry wt	217.0	158.0	161.6	108.8	118.9
Sample Fraction <2mm	g dry wt	259.6	293.2	360.1	307.8	227.9
<2mm Subsample Weight	g dry wt	53.6	53.6	53.7	52.4	52.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:		S2 - Landfill SP16D-02 01-May-2026	S2 - Landfill SP16D-03 01-May-2026
Lab Number:		4201465.11	4201465.12
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form		-	-
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001
As Received Weight	g	643.5	708.0
Dry Weight	g	517.5	562.0
Moisture*	%	20	21
Sample Fraction >10mm	g dry wt	124.8	112.3
Sample Fraction <10mm to >2mm	g dry wt	123.5	156.0
Sample Fraction <2mm	g dry wt	268.5	292.9
<2mm Subsample Weight	g dry wt	51.3	53.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-12
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-12
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-12
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-12
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-12
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-12
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-12
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-12
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-12
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-12
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-12
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-12

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

Testing was completed on 06-May-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4201482	SPv1
Contact:	Nathan Cash	Date Received:	02-May-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	07-May-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 45798	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Stockpile 16	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill SP16A-01 01-May-2026	S2 - Landfill SP16A-02 01-May-2026	S2 - Landfill SP16A-03 01-May-2026	S2 - Landfill SP16B-01 01-May-2026	S2 - Landfill SP16B-02 01-May-2026
Lab Number:	4201482.1	4201482.2	4201482.3	4201482.4	4201482.5

Individual Tests

Ash*	g/100g dry wt	93	-	-	95	-
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	6	6	5	6	6
Total Recoverable Cadmium	mg/kg dry wt	0.45	0.71	0.21	0.29	0.22
Total Recoverable Chromium	mg/kg dry wt	15	15	15	15	15
Total Recoverable Copper	mg/kg dry wt	18	23	16	23	20
Total Recoverable Lead	mg/kg dry wt	36	46	36	45	35
Total Recoverable Nickel	mg/kg dry wt	10	10	10	12	10
Total Recoverable Zinc	mg/kg dry wt	178	210	137	210	156

Sample Name:	S2 - Landfill SP16B-03 01-May-2026	S2 - Landfill SP16C-01 01-May-2026	S2 - Landfill SP16C-02 01-May-2026	S2 - Landfill SP16C-03 01-May-2026	S2 - Landfill SP16D-01 01-May-2026
Lab Number:	4201482.6	4201482.7	4201482.8	4201482.9	4201482.10

Individual Tests

Ash*	g/100g dry wt	-	93	-	-	90
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Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	6	4	6	6	5
Total Recoverable Cadmium	mg/kg dry wt	0.24	0.12	0.24	0.17	0.13
Total Recoverable Chromium	mg/kg dry wt	15	15	14	16	16
Total Recoverable Copper	mg/kg dry wt	25	12	16	14	12
Total Recoverable Lead	mg/kg dry wt	50	20	36	23	21
Total Recoverable Nickel	mg/kg dry wt	10	9	10	9	10
Total Recoverable Zinc	mg/kg dry wt	210	80	170	100	74

Sample Name:	S2 - Landfill SP16D-02 01-May-2026	S2 - Landfill SP16D-03 01-May-2026
Lab Number:	4201482.11	4201482.12

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	5	5
Total Recoverable Cadmium	mg/kg dry wt	0.16	0.15
Total Recoverable Chromium	mg/kg dry wt	16	16
Total Recoverable Copper	mg/kg dry wt	14	14
Total Recoverable Lead	mg/kg dry wt	30	25
Total Recoverable Nickel	mg/kg dry wt	10	9
Total Recoverable Zinc	mg/kg dry wt	113	133



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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
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	1-12
Ash*	Ignition in muffle furnace 550°C, 6hr, gravimetric. APHA 2540 G : Online Edition.	0.04 g/100g dry wt	1, 4, 7, 10

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

Testing was completed between 05-May-2026 and 07-May-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Ara Heron BSc (Tech)
Client Services Manager - Environmental

Appendix C4 – Landfill Validation Laboratory Results

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4054758	A2Pv1
Contact:	Nathan Cash	Date Received:	10-Dec-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	12-Dec-2025	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Stage 2 Landfill Validation 00	
		Submitted By:	Nathan Cash	

Sample Type: Soil						
Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-Landfill Val-01	4054758.1	552.8	517.8	53.4	Asbestos NOT detected.	-
S2-Landfill Val-02	4054758.2	430.8	413.7	52.3	Asbestos NOT detected.	-
S2-Landfill Val-03	4054758.3	373.0	345.2	57.6	Asbestos NOT detected.	-
S2-Landfill Val-04	4054758.4	286.4	266.4	51.2	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-4
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-4
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-4

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4054760	SPv1
Contact:	Nathan Cash	Date Received:	10-Dec-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	15-Dec-2025	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Stage 2 Landfill Validation 00	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2-Landfill Val-01 10-Dec-2025	S2-Landfill Val-02 10-Dec-2025	S2-Landfill Val-03 10-Dec-2025	S2-Landfill Val-04 10-Dec-2025
Lab Number:		4054760.1	4054760.2	4054760.3	4054760.4
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	4	3	< 2	4
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	0.14	0.28
Total Recoverable Chromium	mg/kg dry wt	12	12	10	16
Total Recoverable Copper	mg/kg dry wt	7	6	6	6
Total Recoverable Lead	mg/kg dry wt	11.5	12.8	23	16.8
Total Recoverable Nickel	mg/kg dry wt	9	10	9	11
Total Recoverable Zinc	mg/kg dry wt	48	59	113	159

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
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	1-4

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

Testing was completed between 11-Dec-2025 and 15-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4118345	A2Pv1
Contact:	Nathan Cash	Date Received:	03-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	06-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Val 100s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Landfill Val - 101 03-Mar-2026	S2-Landfill Val - 102 03-Mar-2026
Lab Number:	4118345.1	4118345.2
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-
Asbestos in ACM as % of Total Sample* % w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample* % w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001
As Received Weight g	796.9	898.9
Dry Weight g	743.0	840.0
Moisture* %	7	7
Sample Fraction >10mm g dry wt	549.5	351.8
Sample Fraction <10mm to >2mm g dry wt	91.5	286.9
Sample Fraction <2mm g dry wt	101.5	200.4
<2mm Subsample Weight g dry wt	58.2	54.2
Weight of Asbestos in ACM (Non-Friable) g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable) g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**

<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-2
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-2
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-2
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-2
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-2
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2

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

Testing was completed on 06-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayan BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4118328	SPv1
Contact:	Nathan Cash	Date Received:	03-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	05-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Val 100s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil				
Sample Name:		S2-Landfill Val - 101 03-Mar-2026		S2-Landfill Val - 102 03-Mar-2026
Lab Number:		4118328.1		4118328.2
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	3		3
Total Recoverable Cadmium	mg/kg dry wt	< 0.10		0.34
Total Recoverable Chromium	mg/kg dry wt	12		12
Total Recoverable Copper	mg/kg dry wt	7		11
Total Recoverable Lead	mg/kg dry wt	14.1		12.3
Total Recoverable Nickel	mg/kg dry wt	10		10
Total Recoverable Zinc	mg/kg dry wt	50		73

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
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	1-2

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

Testing was completed between 04-Mar-2026 and 05-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental



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Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4139758	A2Pv1
Contact:	Nathan Cash	Date Received:	17-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	19-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Val 200s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil				
Sample Name:	S2 - Landfill Val -201 17-Mar-2026	S2 - Landfill Val -202 17-Mar-2026	S2 - Landfill Val -203 17-Mar-2026	S2 - Landfill Val -204 17-Mar-2026
Lab Number:	4139758.1	4139758.2	4139758.3	4139758.4
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 1,022.3	g 960.5	g 887.0	g 884.3
Dry Weight	g 952.0	g 939.2	g 862.1	g 750.7
Moisture*	% 7	% 2	% 3	% 15
Sample Fraction >10mm	g dry wt 462.4	g dry wt 217.3	g dry wt 284.0	g dry wt 1.9
Sample Fraction <10mm to >2mm	g dry wt 310.6	g dry wt 256.6	g dry wt 332.3	g dry wt 16.2
Sample Fraction <2mm	g dry wt 176.5	g dry wt 464.1	g dry wt 244.3	g dry wt 732.1
<2mm Subsample Weight	g dry wt 53.2	g dry wt 53.9	g dry wt 54.3	g dry wt 53.1
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001



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Glossary of Terms

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 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-4
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-4
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-4
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-4
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-4
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-4
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-4
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-4
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-4

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4

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

Testing was completed on 19-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4139759	SPv1
Contact:	Nathan Cash	Date Received:	17-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	19-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Val 200s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill VAL - 201 17-Mar-2026	S2 - Landfill VAL - 202 17-Mar-2026	S2 - Landfill VAL - 203 17-Mar-2026	S2 - Landfill VAL - 204 17-Mar-2026
Lab Number:	4139759.1	4139759.2	4139759.3	4139759.4
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	2	3	4
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	11	13	13
Total Recoverable Copper	mg/kg dry wt	6	6	7
Total Recoverable Lead	mg/kg dry wt	11.0	14.7	13.6
Total Recoverable Nickel	mg/kg dry wt	9	10	10
Total Recoverable Zinc	mg/kg dry wt	38	56	350

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.

Test	Method Description	Default Detection Limit	Sample No
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	1-4

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

Testing was completed between 18-Mar-2026 and 19-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Yu-Hsuan (Coco) Hsueh BSc (Tech)
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:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4146350	A2Pv1
Contact:	Nathan Cash	Date Received:	20-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	24-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO # CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Val 300s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Landfill VAL - 301 20-Mar-2026	S2 - Landfill VAL - 302 20-Mar-2026
Lab Number:	4146350.1	4146350.2
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-
Asbestos in ACM as % of Total Sample* % w/w	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample* % w/w	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001
As Received Weight g	954.8	974.1
Dry Weight g	925.0	927.1
Moisture* %	3	5
Sample Fraction >10mm g dry wt	385.3	386.2
Sample Fraction <10mm to >2mm g dry wt	340.6	215.4
Sample Fraction <2mm g dry wt	198.5	325.1
<2mm Subsample Weight g dry wt	54.0	58.7
Weight of Asbestos in ACM (Non-Friable) g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable) g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-2
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-2
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-2
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-2
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-2
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2

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

Testing was completed on 24-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4146351	SPv1
Contact:	Nathan Cash	Date Received:	20-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	24-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO # CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - Landfill Val 300s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2 - Landfill VAL - 301 20-Mar-2026	S2 - Landfill VAL - 302 20-Mar-2026
Lab Number:		4146351.1	4146351.2
Heavy Metals, Screen Level			
Total Recoverable Arsenic	mg/kg dry wt	4	3
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	12
Total Recoverable Copper	mg/kg dry wt	7	7
Total Recoverable Lead	mg/kg dry wt	13.6	11.1
Total Recoverable Nickel	mg/kg dry wt	9	9
Total Recoverable Zinc	mg/kg dry wt	47	42

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
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	1-2

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

Testing was completed between 23-Mar-2026 and 24-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4100094	A2Pv1
Contact:	Nathan Cash C/- CMW Geotechnical NZ Limited T/A CMW Geoscience PO Box 13444 Tauranga Central Tauranga 3141	Date Received:	13-Feb-2026	
		Date Reported:	17-Feb-2026	
		Quote No:		
		Order No:	CHC 144390	
		Client Reference:		
		Submitted By:	Hamish Gray	

Sample Type: Soil

Sample Name:	S2 - Landfill Val 401 12-Feb-2026	S2 - Landfill Val 402 12-Feb-2026	S2 - Landfill Val 403 12-Feb-2026
Lab Number:	4100094.1	4100094.2	4100094.3
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001
As Received Weight	g	970.2	873.3
Dry Weight	g	953.6	859.6
Moisture*	%	2	10
Sample Fraction >10mm	g dry wt	301.3	287.6
Sample Fraction <10mm to >2mm	g dry wt	393.6	30.4
Sample Fraction <2mm	g dry wt	258.1	541.5
<2mm Subsample Weight	g dry wt	50.7	55.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-3
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-3
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-3
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3

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

Testing was completed on 17-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4100083	SPv1
Contact:	Nathan Cash	Date Received:	13-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	17-Feb-2026	
	PO Box 13444	Quote No:		
	Tauranga Central	Order No:	CHC 144390	
	Tauranga 3141	Client Reference:		
		Submitted By:	Hamish Gray	

Sample Type: Soil

Sample Name:		S2 - Landfill Val 401 12-Feb-2026	S2 - Landfill Val 402 12-Feb-2026	S2 - Landfill Val 403 12-Feb-2026
Lab Number:		4100083.1	4100083.2	4100083.3
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	3	2	< 2
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	11	11
Total Recoverable Copper	mg/kg dry wt	7	5	5
Total Recoverable Lead	mg/kg dry wt	15.3	11.2	9.8
Total Recoverable Nickel	mg/kg dry wt	10	9	10
Total Recoverable Zinc	mg/kg dry wt	50	39	91

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-3
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-3

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

Testing was completed between 14-Feb-2026 and 17-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Ara Heron BSc (Tech)
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4173161	A2Pv1
Contact:	Nathan Cash	Date Received:	10-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	13-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	CHC2026-0002	
		Add. Client Ref:	Landfill Sorting Val 00s	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2- L.F Sorting Val- 01 09-Apr-2026	S2- L.F Sorting Val- 02 09-Apr-2026	S2- L.F Sorting Val- 03 09-Apr-2026
Lab Number:	4173161.1	4173161.2	4173161.3
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 733.1	g 735.4	g 642.2
Dry Weight	g 704.2	g 722.3	g 627.0
Moisture*	% 4	% 2	% 2
Sample Fraction >10mm	g dry wt 158.4	g dry wt 315.3	g dry wt 214.8
Sample Fraction <10mm to >2mm	g dry wt 283.5	g dry wt 263.1	g dry wt 240.8
Sample Fraction <2mm	g dry wt 261.4	g dry wt 143.6	g dry wt 170.4
<2mm Subsample Weight	g dry wt 58.6	g dry wt 52.6	g dry wt 55.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-3
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-3
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-3
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3

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

Testing was completed between 12-Apr-2026 and 13-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayan BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4173166	SPv1
Contact:	Nathan Cash	Date Received:	10-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	13-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	CHC2026-0002	
		Add. Client Ref:	Landfill Sorting Val 00s	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-L.F Sorting VAL-01 09-Apr-2026	S2-L.F Sorting VAL-02 09-Apr-2026	S2-L.F Sorting VAL-03 09-Apr-2026
Lab Number:	4173166.1	4173166.2	4173166.3
Heavy Metals, Screen Level			
Total Recoverable Arsenic	mg/kg dry wt	5	5
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	16	17
Total Recoverable Copper	mg/kg dry wt	11	10
Total Recoverable Lead	mg/kg dry wt	23	21
Total Recoverable Nickel	mg/kg dry wt	12	12
Total Recoverable Zinc	mg/kg dry wt	78	67

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
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	1-3

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

Testing was completed between 11-Apr-2026 and 13-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

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

Testing was completed on 12-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, appearing to read 'John Keneth Paglingayen', with a stylized, looping flourish at the end.

John Keneth Paglingayen BApSc
Laboratory Technician - Asbestos

Appendix C5 – Offal Pit Stockpile Laboratory Results

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4039766	SPV1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	24-Nov-2025	
		Date Reported:	26-Nov-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage 2 Offal Pit Stockpile 1	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Offal SP1A - 01 24-Nov-2025	S2 - Offal SP1A - 02 24-Nov-2025	S2 - Offal SP1A - 03 24-Nov-2025	S2 - Offal SP1B - 01 24-Nov-2025	S2 - Offal SP1B - 02 24-Nov-2025
Lab Number:	4039766.1	4039766.2	4039766.3	4039766.4	4039766.5

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	34	84	27	210	210
Total Recoverable Cadmium	mg/kg dry wt	0.18	0.49	0.18	0.29	0.20
Total Recoverable Chromium	mg/kg dry wt	20	36	19	69	53
Total Recoverable Copper	mg/kg dry wt	36	83	34	179	193
Total Recoverable Lead	mg/kg dry wt	17.9	25	27	38	46
Total Recoverable Nickel	mg/kg dry wt	9	11	10	10	9
Total Recoverable Zinc	mg/kg dry wt	240	390	169	270	230

Sample Name:	S2 - Offal SP1B - 03 24-Nov-2025	S2 - Offal SP1C - 01 24-Nov-2025	S2 - Offal SP1C - 02 24-Nov-2025	S2 - Offal SP1C - 03 24-Nov-2025	S2 - Offal SP1D - 01 24-Nov-2025
Lab Number:	4039766.6	4039766.7	4039766.8	4039766.9	4039766.10

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	290	230	38	210	48
Total Recoverable Cadmium	mg/kg dry wt	0.91	0.23	0.24	0.19	0.26
Total Recoverable Chromium	mg/kg dry wt	86	56	28	45	24
Total Recoverable Copper	mg/kg dry wt	220	210	66	186	790
Total Recoverable Lead	mg/kg dry wt	56	58	166	55	620
Total Recoverable Nickel	mg/kg dry wt	12	12	10	9	10
Total Recoverable Zinc	mg/kg dry wt	680	220	340	260	430

Sample Name:	S2 - Offal SP1D - 03 24-Nov-2025	S2 - Offal SP1E - 01 24-Nov-2025	S2 - Offal SP1E - 02 24-Nov-2025	S2 - Offal SP1E - 03 24-Nov-2025	S2 - Offal SP1F - 01 24-Nov-2025
Lab Number:	4039766.11	4039766.12	4039766.13	4039766.14	4039766.15

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	51	11	23	20	4
Total Recoverable Cadmium	mg/kg dry wt	0.28	0.11	0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	30	15	15	16	12
Total Recoverable Copper	mg/kg dry wt	134	15	15	23	7
Total Recoverable Lead	mg/kg dry wt	700	75	45	118	19.5
Total Recoverable Nickel	mg/kg dry wt	11	9	9	9	9
Total Recoverable Zinc	mg/kg dry wt	400	168	101	140	68

Sample Name:	S2 - Offal SP1F - 02 24-Nov-2025	S2 - Offal SP1F - 03 24-Nov-2025
Lab Number:	4039766.16	4039766.17

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	4	5
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.10
Total Recoverable Chromium	mg/kg dry wt	12	14
Total Recoverable Copper	mg/kg dry wt	10	11
Total Recoverable Lead	mg/kg dry wt	27	46



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Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4051021	SPV1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	05-Dec-2025	
		Date Reported:	09-Dec-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2- Offalpit Stockpile 2	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2- Offal SP2A-01 05-Dec-2025	S2- Offal SP2A-02 05-Dec-2025	S2- Offal SP2A-03 05-Dec-2025	S2- Offal SP2B-01 05-Dec-2025	S2- Offal SP2B-02 05-Dec-2025
Lab Number:	4051021.1	4051021.2	4051021.3	4051021.4	4051021.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	8	9	9	17
Total Recoverable Cadmium	mg/kg dry wt	0.14	0.17	0.12	0.21
Total Recoverable Chromium	mg/kg dry wt	14	14	15	17
Total Recoverable Copper	mg/kg dry wt	13	15	18	31
Total Recoverable Lead	mg/kg dry wt	13.4	14.7	14.0	19.7
Total Recoverable Nickel	mg/kg dry wt	10	9	9	10
Total Recoverable Zinc	mg/kg dry wt	220	220	230	350

Sample Name:	S2- Offal SP2B-03 05-Dec-2025	S2- Offal SP2C-01 05-Dec-2025	S2- Offal SP2C-02 05-Dec-2025	S2- Offal SP2C-03 05-Dec-2025
Lab Number:	4051021.6	4051021.7	4051021.8	4051021.9
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	11	55	66
Total Recoverable Cadmium	mg/kg dry wt	0.15	0.95	0.41
Total Recoverable Chromium	mg/kg dry wt	15	31	38
Total Recoverable Copper	mg/kg dry wt	16	75	71
Total Recoverable Lead	mg/kg dry wt	14.1	430	27
Total Recoverable Nickel	mg/kg dry wt	10	11	11
Total Recoverable Zinc	mg/kg dry wt	230	380	330

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
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

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

Testing was completed between 06-Dec-2025 and 09-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, consisting of a large stylized 'K' followed by the name 'Harrison' in a cursive script.

Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4051022	A2Pv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	05-Dec-2025	
		Date Reported:	09-Dec-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offalpit Stockpile 2	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2- Offal SP2A-01 05-Dec-2025	S2- Offal SP2A-02 05-Dec-2025	S2- Offal SP2A-03 05-Dec-2025	S2- Offal SP2B-01 05-Dec-2025	S2- Offal SP2B-02 05-Dec-2025
Lab Number:	4051022.1	4051022.2	4051022.3	4051022.4	4051022.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	583.4	569.1	587.3	548.9
Dry Weight	g	477.5	478.8	514.7	452.9
Moisture*	%	18	16	12	17
Sample Fraction >10mm	g dry wt	23.7	12.5	27.2	20.9
Sample Fraction <10mm to >2mm	g dry wt	72.2	73.9	69.3	73.3
Sample Fraction <2mm	g dry wt	380.8	391.4	417.5	357.5
<2mm Subsample Weight	g dry wt	53.6	51.2	55.2	50.5
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2- Offal SP2B-03 05-Dec-2025	S2- Offal SP2C-01 05-Dec-2025	S2- Offal SP2C-02 05-Dec-2025	S2- Offal SP2C-03 05-Dec-2025
Lab Number:	4051022.6	4051022.7	4051022.8	4051022.9
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-
Asbestos in ACM as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g	664.1	617.2	693.0
Dry Weight	g	568.3	536.6	588.5
Moisture*	%	14	13	15



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Sample Type: Soil					
Sample Name:		S2- Offal SP2B-03 05-Dec-2025	S2- Offal SP2C-01 05-Dec-2025	S2- Offal SP2C-02 05-Dec-2025	S2- Offal SP2C-03 05-Dec-2025
Lab Number:		4051022.6	4051022.7	4051022.8	4051022.9
Sample Fraction >10mm	g dry wt	94.4	85.1	30.0	45.3
Sample Fraction <10mm to >2mm	g dry wt	71.4	72.7	52.0	54.0
Sample Fraction <2mm	g dry wt	401.6	377.8	505.4	478.1
<2mm Subsample Weight	g dry wt	56.5	50.8	56.7	50.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.

<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-9
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-9
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-9

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9

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

Testing was completed between 08-Dec-2025 and 09-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Belinda Hughes BSc, PGDipSci
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 3

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4052110	A2Pv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	08-Dec-2025	
		Date Reported:	10-Dec-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offalpit Stockpile 2	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Offal SP2D-01 08-Dec-2025	S2-Offal SP2D-02 08-Dec-2025	S2-Offal SP2D-03 08-Dec-2025	S2-Offal SP2E-01 08-Dec-2025	S2-Offal SP2E-02 08-Dec-2025
Lab Number:	4052110.1	4052110.2	4052110.3	4052110.4	4052110.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 747.9	g 649.4	g 777.9	g 559.1	g 632.6
Dry Weight	g 588.5	g 506.1	g 607.5	g 430.8	g 501.3
Moisture*	% 21	% 22	% 22	% 23	% 21
Sample Fraction >10mm	g dry wt 71.0	g dry wt 101.5	g dry wt 57.4	g dry wt 68.0	g dry wt 47.1
Sample Fraction <10mm to >2mm	g dry wt 118.5	g dry wt 87.1	g dry wt 119.4	g dry wt 96.4	g dry wt 94.1
Sample Fraction <2mm	g dry wt 397.6	g dry wt 316.5	g dry wt 428.1	g dry wt 265.3	g dry wt 359.1
<2mm Subsample Weight	g dry wt 54.9	g dry wt 56.5	g dry wt 55.7	g dry wt 55.6	g dry wt 53.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2-Offal SP2E-03 08-Dec-2025	S2-Offal SP2F-01 08-Dec-2025	S2-Offal SP2F-02 08-Dec-2025	S2-Offal SP2F-03 08-Dec-2025
Lab Number:	4052110.6	4052110.7	4052110.8	4052110.9
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 632.3	g 598.6	g 594.5	g 570.6
Dry Weight	g 489.8	g 493.2	g 469.7	g 447.0
Moisture*	% 23	% 18	% 21	% 22



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:		S2-Offal SP2E-03 08-Dec-2025	S2-Offal SP2F-01 08-Dec-2025	S2-Offal SP2F-02 08-Dec-2025	S2-Offal SP2F-03 08-Dec-2025
Lab Number:		4052110.6	4052110.7	4052110.8	4052110.9
Sample Fraction >10mm	g dry wt	61.2	69.8	99.4	71.1
Sample Fraction <10mm to >2mm	g dry wt	98.8	75.8	81.2	81.7
Sample Fraction <2mm	g dry wt	328.8	347.1	288.8	293.7
<2mm Subsample Weight	g dry wt	52.1	50.2	53.6	54.4
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-9
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-9
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-9
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-9
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-9

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-9
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-9

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

Testing was completed on 10-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Belinda Hughes BSc, PGDipSci
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4052111	SPV1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	08-Dec-2025	
		Date Reported:	10-Dec-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offalpit Stockpile 2	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Offal SP2D-01	S2-Offal SP2D-02	S2-Offal SP2D-03	S2-Offal SP2E-01	S2-Offal SP2E-02
	08-Dec-2025	08-Dec-2025	08-Dec-2025	08-Dec-2025	08-Dec-2025
Lab Number:	4052111.1	4052111.2	4052111.3	4052111.4	4052111.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	28	22	23	17
Total Recoverable Cadmium	mg/kg dry wt	0.93	0.38	0.39	0.21
Total Recoverable Chromium	mg/kg dry wt	21	18	19	17
Total Recoverable Copper	mg/kg dry wt	116	41	78	26
Total Recoverable Lead	mg/kg dry wt	31	55	28	20
Total Recoverable Nickel	mg/kg dry wt	92	10	11	10
Total Recoverable Zinc	mg/kg dry wt	6,000	700	230	189

Sample Name:	S2-Offal SP2E-03	S2-Offal SP2F-01	S2-Offal SP2F-02	S2-Offal SP2F-03
	08-Dec-2025	08-Dec-2025	08-Dec-2025	08-Dec-2025
Lab Number:	4052111.6	4052111.7	4052111.8	4052111.9
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	27	60	24
Total Recoverable Cadmium	mg/kg dry wt	0.48	0.34	0.29
Total Recoverable Chromium	mg/kg dry wt	19	30	19
Total Recoverable Copper	mg/kg dry wt	45	59	37
Total Recoverable Lead	mg/kg dry wt	25	21	31
Total Recoverable Nickel	mg/kg dry wt	10	11	10
Total Recoverable Zinc	mg/kg dry wt	200	200	182

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
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

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

Testing was completed between 09-Dec-2025 and 10-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4078832	SPV1
Contact:	Nathan Cash	Date Received:	20-Jan-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	22-Jan-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offal Stockpile 3	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Offal SP3A-01	S2-Offal SP3A-02	S2-Offal SP3A-03	S2-Offal SP3B-01	S2-Offal SP3B-02
	20-Jan-2026	20-Jan-2026	20-Jan-2026	20-Jan-2026	20-Jan-2026
Lab Number:	4078832.1	4078832.2	4078832.3	4078832.4	4078832.5

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	94	56	60	14	126
Total Recoverable Cadmium	mg/kg dry wt	0.37	0.17	0.19	0.27	0.47
Total Recoverable Chromium	mg/kg dry wt	39	32	38	18	51
Total Recoverable Copper	mg/kg dry wt	107	51	48	24	118
Total Recoverable Lead	mg/kg dry wt	42	23	23	19.6	38
Total Recoverable Nickel	mg/kg dry wt	13	12	11	11	12
Total Recoverable Zinc	mg/kg dry wt	340	155	156	186	440

Sample Name:	S2-Offal SP3B-03	S2-Offal SP3C-01	S2-Offal SP3C-02	S2-Offal SP3C-03	S2-Offal SP3D-01
	20-Jan-2026	20-Jan-2026	20-Jan-2026	20-Jan-2026	20-Jan-2026
Lab Number:	4078832.6	4078832.7	4078832.8	4078832.9	4078832.10

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	82	14	39	80	15
Total Recoverable Cadmium	mg/kg dry wt	0.37	0.24	0.23	0.67	0.20
Total Recoverable Chromium	mg/kg dry wt	35	18	24	39	18
Total Recoverable Copper	mg/kg dry wt	93	26	51	88	40
Total Recoverable Lead	mg/kg dry wt	106	26	50	135	19.3
Total Recoverable Nickel	mg/kg dry wt	11	11	12	11	12
Total Recoverable Zinc	mg/kg dry wt	370	145	260	340	154

Sample Name:	S2-Offal SP3D	S2-Offal SP3D	S2-Offal SP3E-01	S2-Offal SP3E-02	S2-Offal SP3E-03
	[A] 20-Jan-2026	[B] 20-Jan-2026	20-Jan-2026	20-Jan-2026	20-Jan-2026
Lab Number:	4078832.11	4078832.12	4078832.13	4078832.14	4078832.15

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	17	42	14	13	12
Total Recoverable Cadmium	mg/kg dry wt	0.13	0.17	0.15	0.14	0.14
Total Recoverable Chromium	mg/kg dry wt	18	24	18	16	17
Total Recoverable Copper	mg/kg dry wt	27	270	26	24	24
Total Recoverable Lead	mg/kg dry wt	74	89	29	75	18.2
Total Recoverable Nickel	mg/kg dry wt	10	11	12	11	11
Total Recoverable Zinc	mg/kg dry wt	143	210	151	153	230

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
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Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
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	1-15

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

Testing was completed between 21-Jan-2026 and 22-Jan-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 4

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4078814	A2Pv2
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	20-Jan-2026	
		Date Reported:	23-Jan-2026	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offal Stockpile 3	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-Offal SP3E-03 20-Jan-2026	4078814.15	341.3	285.1	50.1	Asbestos NOT detected.	-

Sample Type: Soil

Sample Name:	S2-Offal SP3A-01 20-Jan-2026	S2-Offal SP3A-02 20-Jan-2026	S2-Offal SP3A-03 20-Jan-2026	S2-Offal SP3B-01 20-Jan-2026	S2-Offal SP3B-02 20-Jan-2026
Lab Number:	4078814.1	4078814.2	4078814.3	4078814.4	4078814.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 706.4	g 802.8	g 746.7	g 641.1	g 645.4
Dry Weight	g 615.3	g 731.7	g 669.9	g 529.2	g 540.2
Moisture*	% 13	% 9	% 10	% 17	% 16
Sample Fraction >10mm	g dry wt 53.6	g dry wt 139.3	g dry wt 104.6	g dry wt 111.2	g dry wt 31.9
Sample Fraction <10mm to >2mm	g dry wt 114.9	g dry wt 128.6	g dry wt 118.4	g dry wt 120.2	g dry wt 105.5
Sample Fraction <2mm	g dry wt 446.0	g dry wt 463.0	g dry wt 446.2	g dry wt 295.9	g dry wt 402.0
<2mm Subsample Weight	g dry wt 56.2	g dry wt 56.4	g dry wt 57.3	g dry wt 53.2	g dry wt 60.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2-Offal SP3B-03 20-Jan-2026	S2-Offal SP3C-01 20-Jan-2026	S2-Offal SP3C-02 20-Jan-2026	S2-Offal SP3C-03 20-Jan-2026	S2-Offal SP3D-01 20-Jan-2026
Lab Number:	4078814.6	4078814.7	4078814.8	4078814.9	4078814.10
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001



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:	S2-Offal SP3B-03 20-Jan-2026	S2-Offal SP3C-01 20-Jan-2026	S2-Offal SP3C-02 20-Jan-2026	S2-Offal SP3C-03 20-Jan-2026	S2-Offal SP3D-01 20-Jan-2026
Lab Number:	4078814.6	4078814.7	4078814.8	4078814.9	4078814.10
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g 662.0	677.4	800.2	710.4	676.5
Dry Weight	g 561.1	562.0	678.4	579.4	549.0
Moisture*	% 15	17	15	18	19
Sample Fraction >10mm	g dry wt 38.8	59.3	23.3	27.4	17.4
Sample Fraction <10mm to >2mm	g dry wt 89.2	79.2	103.0	118.0	86.1
Sample Fraction <2mm	g dry wt 431.6	422.3	550.9	432.8	444.7
<2mm Subsample Weight	g dry wt 55.8	52.0	52.3	57.9	56.4
Weight of Asbestos in ACM (Non- Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Sample Name:	S2-Offal SP3D-02 20-Jan-2026	S2-Offal SP3D-03 20-Jan-2026	S2-Offal SP3E-01 20-Jan-2026	S2-Offal SP3E-02 20-Jan-2026
Lab Number:	4078814.11	4078814.12	4078814.13	4078814.14
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001	< 0.001
As Received Weight	g 580.3	782.6	714.0	675.5
Dry Weight	g 509.8	654.8	582.1	541.4
Moisture*	% 12	16	18	20
Sample Fraction >10mm	g dry wt 22.3	46.4	91.5	83.4
Sample Fraction <10mm to >2mm	g dry wt 129.9	102.2	137.2	141.9
Sample Fraction <2mm	g dry wt 357.3	505.7	353.1	315.8
<2mm Subsample Weight	g dry wt 59.4	59.1	58.1	51.9
Weight of Asbestos in ACM (Non- Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.

<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	15
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	15
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	15
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	15
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	15
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-14
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-14
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-14
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-14
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-14
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-14
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-14
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-14

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-14
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-14
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-14
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-14
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-14
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-14
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-14

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

Testing was completed between 22-Jan-2026 and 23-Jan-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 3

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4081926	A2Pv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	23-Jan-2026	
		Date Reported:	28-Jan-2026	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offal Stockpile 3F	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Offal SP3F-01 23-Jan-2026	S2-Offal SP3F-02 23-Jan-2026	S2-Offal SP3F-03 23-Jan-2026
Lab Number:	4081926.1	4081926.2	4081926.3
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 984.6	g 931.8	g 962.2
Dry Weight	g 981.2	g 927.6	g 959.1
Moisture*	% < 1	% < 1	% < 1
Sample Fraction >10mm	g dry wt 522.5	g dry wt 437.7	g dry wt 431.7
Sample Fraction <10mm to >2mm	g dry wt 196.7	g dry wt 186.2	g dry wt 171.3
Sample Fraction <2mm	g dry wt 261.3	g dry wt 302.6	g dry wt 355.4
<2mm Subsample Weight	g dry wt 51.4	g dry wt 52.3	g dry wt 50.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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.

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			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-3
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-3
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-3
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-3
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3

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

Testing was completed between 27-Jan-2026 and 28-Jan-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in purple ink, appearing to be 'Dexter Paguirigan', written in a cursive style.

Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4081925	SPv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	23-Jan-2026	
		Date Reported:	28-Jan-2026	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offal Stockpile 3F	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Offal SP3F-01 23-Jan-2026	S2-Offal SP3F-02 23-Jan-2026	S2-Offal SP3F-03 23-Jan-2026	S2-Offal Val - 301 23-Jan-2026	S2-Offal Val - 302 23-Jan-2026
Lab Number:	4081925.1	4081925.2	4081925.3	4081925.4	4081925.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	< 2	4	< 2	2
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	11	15	12	12
Total Recoverable Copper	mg/kg dry wt	6	12	7	7
Total Recoverable Lead	mg/kg dry wt	12.8	15.1	13.1	12.4
Total Recoverable Nickel	mg/kg dry wt	9	11	9	10
Total Recoverable Zinc	mg/kg dry wt	51	90	118	44

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
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	1-5

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

Testing was completed between 24-Jan-2026 and 28-Jan-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Sample Type: Soil			
Sample Name:		S2 - Offal SP1F - 02 24-Nov-2025	S2 - Offal SP1F - 03 24-Nov-2025
Lab Number:		4039766.16	4039766.17
Heavy Metals, Screen Level			
Total Recoverable Nickel	mg/kg dry wt	9	9
Total Recoverable Zinc	mg/kg dry wt	79	85

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
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	1-17

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

Testing was completed between 25-Nov-2025 and 26-Nov-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Appendix C6 – Offal Pit Validation Laboratory Results

Certificate of Analysis

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Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4038644	SPv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	21-Nov-2025	
		Date Reported:	25-Nov-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage 2 Offal Pit Val	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - Offal Val - 01 21-Nov-2025	S2 - Offal Val - 02 21-Nov-2025	S2 - Offal Val - 03 21-Nov-2025	S2 - Offal Val - 04 21-Nov-2025	S2 - Offal Val - 05 21-Nov-2025
Lab Number:	4038644.1	4038644.2	4038644.3	4038644.4	4038644.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	< 2	< 2	3	4
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	12	11	11	10
Total Recoverable Copper	mg/kg dry wt	6	6	6	5
Total Recoverable Lead	mg/kg dry wt	14.0	11.4	10.5	8.6
Total Recoverable Nickel	mg/kg dry wt	9	8	8	8
Total Recoverable Zinc	mg/kg dry wt	42	35	36	31

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
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	1-5

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

Testing was completed between 22-Nov-2025 and 25-Nov-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4038645	A2Pv1
Contact:	Nathan Cash	Date Received:	21-Nov-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	26-Nov-2025	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage 2 Offal Pit Val	
		Add. Client Ref:	Sampled: 21/11/25	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2 - Offal Val - 01	4038645.1	453.0	418.0	52.6	Asbestos NOT detected.	-
S2 - Offal Val - 02	4038645.2	336.7	297.3	51.5	Asbestos NOT detected.	-
S2 - Offal Val - 03	4038645.3	383.8	351.9	58.4	Asbestos NOT detected.	-
S2 - Offal Val - 04	4038645.4	421.1	368.7	57.9	Asbestos NOT detected.	-
S2 - Offal Val - 05	4038645.5	452.1	413.6	50.7	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	0.1 g	1-5
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	0.1 g	1-5
<2mm Subsample Weight Presence / Absence Testing	Sample ashed at 400°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	-	1-5
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-5
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present. Analysed at Hill Laboratories - Asbestos; 28 Heather Street, Auckland.	-	1-5



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

Testing was completed on 26-Nov-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, appearing to read 'Danielle Carter', is positioned above the printed name.

Danielle Carter BSc, PGDipSci, MSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4057166	SPv1
Contact:	Nathan Cash	Date Received:	12-Dec-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	16-Dec-2025	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offalpit Validations 100s	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2-Offal Val - 101 12-Dec-2025	S2-Offal Val - 102 12-Dec-2025	S2-Offal Val - 103 12-Dec-2025	S2-Offal Val - 104 12-Dec-2025
Lab Number:		4057166.1	4057166.2	4057166.3	4057166.4
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	3	< 2	7	3
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	12	10	12	12
Total Recoverable Copper	mg/kg dry wt	6	5	6	5
Total Recoverable Lead	mg/kg dry wt	11.5	8.3	9.2	9.6
Total Recoverable Nickel	mg/kg dry wt	10	8	9	9
Total Recoverable Zinc	mg/kg dry wt	42	38	42	34

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
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	1-4

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

Testing was completed between 13-Dec-2025 and 16-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4057165	A2Pv1
Contact:	Nathan Cash	Date Received:	12-Dec-2025	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	16-Dec-2025	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offalpit Validations 100s	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name	Lab Number	As Received Weight Presence / Absence Testing (g)	Dry Weight Presence / Absence Testing (g)	<2mm Subsample Weight Presence / Absence Testing (g dry wt)	Asbestos Presence / Absence from Presence / Absence Testing	Description of Asbestos Form Presence / Absence Testing
S2-Offal Val - 101 12-Dec-2025	4057165.1	416.7	389.3	51.8	Asbestos NOT detected.	-
S2-Offal Val - 102 12-Dec-2025	4057165.2	466.9	442.6	59.2	Asbestos NOT detected.	-
S2-Offal Val - 103 12-Dec-2025	4057165.3	328.0	278.9	52.0	Asbestos NOT detected.	-
S2-Offal Val - 104 12-Dec-2025	4057165.4	542.5	492.4	56.8	Asbestos NOT detected.	-

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight Presence / Absence Testing	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
Dry Weight Presence / Absence Testing	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
<2mm Subsample Weight Presence / Absence Testing	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	-	1-4
Asbestos Presence / Absence from Presence / Absence Testing	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-4



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			
Test	Method Description	Default Detection Limit	Sample No
Description of Asbestos Form Presence / Absence Testing	Description of asbestos form and/or shape if present.	-	1-4

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

Testing was completed on 16-Dec-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Jessica Griffin BSc, BOHS W504
Team Leader - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4081925	SPv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	23-Jan-2026	
		Date Reported:	28-Jan-2026	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offal Stockpile 3F	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Offal SP3F-01 23-Jan-2026	S2-Offal SP3F-02 23-Jan-2026	S2-Offal SP3F-03 23-Jan-2026	S2-Offal Val - 301 23-Jan-2026	S2-Offal Val - 302 23-Jan-2026
Lab Number:	4081925.1	4081925.2	4081925.3	4081925.4	4081925.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	< 2	4	< 2	2
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	11	15	12	12
Total Recoverable Copper	mg/kg dry wt	6	12	7	7
Total Recoverable Lead	mg/kg dry wt	12.8	15.1	13.1	12.4
Total Recoverable Nickel	mg/kg dry wt	9	11	9	10
Total Recoverable Zinc	mg/kg dry wt	51	90	118	44

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
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	1-5

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

Testing was completed between 24-Jan-2026 and 28-Jan-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4092517	A2Pv1
Contact:	Tim Farrant	Date Received:	05-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	11-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offalpit Cap Stockpile 1	
		Submitted By:	Tim Farrant	

Sample Type: Soil

Sample Name:	S2-Offalpit Val - 401 05-Feb-2026	S2-Offalpit Val - 402 05-Feb-2026	S2-Offalpit Val - 403 05-Feb-2026	S2-Offalpit Val - 404 05-Feb-2026
Lab Number:	4092517.1	4092517.2	4092517.3	4092517.4
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 771.7	g 730.9	g 757.3	g 781.6
Dry Weight	g 686.2	g 653.3	g 700.2	g 745.4
Moisture*	% 11	% 11	% 8	% 5
Sample Fraction >10mm	g dry wt 5.1	g dry wt 96.9	g dry wt 46.0	g dry wt 324.9
Sample Fraction <10mm to >2mm	g dry wt 24.4	g dry wt 53.4	g dry wt 30.4	g dry wt 256.8
Sample Fraction <2mm	g dry wt 655.9	g dry wt 502.1	g dry wt 623.8	g dry wt 163.6
<2mm Subsample Weight	g dry wt 55.2	g dry wt 55.9	g dry wt 55.4	g dry wt 54.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**

<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-4
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-4
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-4
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-4
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-4
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-4
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-4
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-4
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-4
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-4
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-4

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

Testing was completed on 11-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4092521	SPV1
Contact:	Tim Farrant	Date Received:	05-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	10-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	733-CHCGE280252AC	
		Client Reference:	S2-Offalpit Cap Stockpile 1	
		Submitted By:	Tim Farrant	

Sample Type: Soil

Sample Name:		S2-Offalpit Val - 401 05-Feb-2026	S2-Offalpit Val - 402 05-Feb-2026	S2-Offalpit Val - 403 05-Feb-2026	S2-Offalpit Val - 404 05-Feb-2026
Lab Number:		4092521.1	4092521.2	4092521.3	4092521.4
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	3	6	5	6
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	11	12	10	12
Total Recoverable Copper	mg/kg dry wt	5	6	5	8
Total Recoverable Lead	mg/kg dry wt	9.1	9.7	8.4	14.1
Total Recoverable Nickel	mg/kg dry wt	9	9	9	11
Total Recoverable Zinc	mg/kg dry wt	33	36	35	44

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
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	1-4

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

Testing was completed between 07-Feb-2026 and 10-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4095361	A2Pv1
Contact:	Nathan Cash	Date Received:	10-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	13-Feb-2026	
	PO Box 13444	Quote No:		
	Tauranga Central	Order No:	Earlsbrook Stage 2	
	Tauranga 3141	Client Reference:	Offal Pit Val 500s	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-Offal Pit Val -501 10-Feb-2026	S2-Offal Pit Val -502 10-Feb-2026	S2-Offal Pit Val -503 10-Feb-2026	S2-Offal Pit Val -504 10-Feb-2026	S2-Offal Pit Val -505 10-Feb-2026
Lab Number:	4095361.1	4095361.2	4095361.3	4095361.4	4095361.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 738.0	g 921.6	g 875.1	g 950.2	g 972.7
Dry Weight	g 601.1	g 854.9	g 858.8	g 938.7	g 913.9
Moisture*	% 19	% 7	% 2	% 1	% 6
Sample Fraction >10mm	g dry wt 52.1	g dry wt 336.9	g dry wt 344.5	g dry wt 421.2	g dry wt 381.8
Sample Fraction <10mm to >2mm	g dry wt 50.3	g dry wt 268.4	g dry wt 317.8	g dry wt 400.4	g dry wt 271.7
Sample Fraction <2mm	g dry wt 495.7	g dry wt 249.3	g dry wt 196.0	g dry wt 116.7	g dry wt 260.1
<2mm Subsample Weight	g dry wt 55.9	g dry wt 53.2	g dry wt 57.2	g dry wt 51.9	g dry wt 56.6
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**

<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-5
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-5
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-5
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-5
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-5
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5

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

Testing was completed between 12-Feb-2026 and 13-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geosciences	Lab No:	4095340	SPv1
Contact:	CMW Geotechnical NZ Limited T/A CMW Geosciences C/- CMW Geotechnical NZ Limited PO Box 13444 Tauranga Central Tauranga 3141	Date Received:	10-Feb-2026	
		Date Reported:	17-Feb-2026	
		Quote No:		
		Order No:	Earlsbrook Stage 2	
		Client Reference:	Offal Pit Val 500s	
		Submitted By:	CMW Geotechnical NZ Limited T/A CMW Geosciences	

Sample Type: Soil

Sample Name:	S2-Offal Pit Val -501 10-Feb-2026	S2-Offal Pit Val -502 10-Feb-2026	S2-Offal Pit Val -503 10-Feb-2026	S2-Offal Pit Val -504 10-Feb-2026	S2-Offal Pit Val -505 10-Feb-2026
Lab Number:	4095340.1	4095340.2	4095340.3	4095340.4	4095340.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	4	3	5	6
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	15	13	11	13
Total Recoverable Copper	mg/kg dry wt	5	6	6	7
Total Recoverable Lead	mg/kg dry wt	11.1	10.6	10.5	11.6
Total Recoverable Nickel	mg/kg dry wt	11	9	9	9
Total Recoverable Zinc	mg/kg dry wt	38	41	36	47

Sample Type: Miscellaneous

Sample Name:	S2-Offal Pit North-01 10-Feb-2026	S2-Offal Pit North-02 10-Feb-2026
Lab Number:	4095340.6	4095340.8
Individual Tests		
TCLP Weight of Sample Taken	g	50
TCLP Initial Sample pH	pH Units	8.3
TCLP Acid Adjusted Sample pH	pH Units	1.6
TCLP Extractant Type*	NaOH/Acetic acid at pH 4.93 +/- 0.05	
TCLP Extraction Fluid pH	pH Units	4.9
TCLP Post Extraction Sample pH	pH Units	5.2

Sample Type: Aqueous

Sample Name:	S2-Offal Pit North-01 [TCLP Extract] 10-Feb-2026	S2-Offal Pit North-02 [TCLP Extract] 10-Feb-2026
Lab Number:	4095340.7	4095340.9
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn, for TCLP samples		
Total Arsenic	g/m ³	< 0.021
Total Cadmium	g/m ³	< 0.0011
Total Chromium	g/m ³	< 0.011
Total Copper	g/m ³	< 0.011
Total Lead	g/m ³	< 0.0021
Total Nickel	g/m ³	< 0.011
Total Zinc	g/m ³	< 0.053

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%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-5
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-5

Sample Type: Miscellaneous			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
TCLP Profile*	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1311.	-	6, 8
TCLP Profile			
TCLP Weight of Sample Taken	Gravimetric. US EPA 1311.	0.1 g	6, 8
TCLP Initial Sample pH	pH meter. US EPA 1311.	0.1 pH Units	6, 8
TCLP Acid Adjusted Sample pH	pH meter. US EPA 1311.	0.1 pH Units	6, 8
TCLP Extractant Type*	US EPA 1311.	-	6, 8
TCLP Extraction Fluid pH	pH meter. US EPA 1311.	0.1 pH Units	6, 8
TCLP Post Extraction Sample pH	pH meter. US EPA 1311.	0.1 pH Units	6, 8

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.	-	7, 9
Heavy metals, totals, screen As,Cd,Cr,Cu,Ni,Pb,Zn, for TCLP samples	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B (modified) 23rd ed. 2017.	0.0011 - 0.053 g/m ³	7, 9

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

Testing was completed between 11-Feb-2026 and 17-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Ara Heron BSc (Tech)
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4109606	A2Pv1
Contact:	Nathan Cash	Date Received:	24-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	26-Feb-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 1444390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 - Offalpit North	
		Add. Client Ref:	CHC2026 - 0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-OffalPitNorth VAL - 601 23-Feb-2026	S2-OffalPitNorth VAL - 602 23-Feb-2026	S2-OffalPitNorth VAL - 603 23-Feb-2026
Lab Number:	4109606.1	4109606.2	4109606.3
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	< 0.001	< 0.001
As Received Weight	g 950.0	893.9	744.9
Dry Weight	g 889.4	831.6	687.7
Moisture*	% 6	7	8
Sample Fraction >10mm	g dry wt 473.3	446.5	< 0.1
Sample Fraction <10mm to >2mm	g dry wt 241.4	164.0	3.1
Sample Fraction <2mm	g dry wt 174.7	221.0	684.2
<2mm Subsample Weight	g dry wt 51.3	58.1	53.8
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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Summary of Methods

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Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-3
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-3
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-3
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3

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

Testing was completed on 26-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4109584	SPv1
Contact:	Nathan Cash	Date Received:	24-Feb-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	26-Feb-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2- Offalpit North	
		Add. Client Ref:	CHC2026- 0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2-OffalPitNorth VAL- 601	S2-OffalPitNorth VAL- 602	S2-OffalPitNorth VAL- 603
Lab Number:		4109584.1	4109584.2	4109584.3
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	4	4	3
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	12	11
Total Recoverable Copper	mg/kg dry wt	7	7	5
Total Recoverable Lead	mg/kg dry wt	13.9	12.5	9.7
Total Recoverable Nickel	mg/kg dry wt	10	9	9
Total Recoverable Zinc	mg/kg dry wt	42	39	32

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
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	1-3

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

Testing was completed between 25-Feb-2026 and 26-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Yu-Hsuan (Coco) Hsueh BSc (Tech)
Client Services Manager - Environmental



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Appendix C7 – Lots, Roads and Silt Stockpile Laboratory Results

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4038642	SPv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	21-Nov-2025	
		Date Reported:	25-Nov-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage 2 Lot 253 Val	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2-Val-Lot 253-01 21-Nov-2025	S2-Val-Lot 253-02 21-Nov-2025	S2-Val- Lot 253-03 21-Nov-2025
Lab Number:		4038642.1	4038642.2	4038642.3
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	5	2	4
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	0.16
Total Recoverable Chromium	mg/kg dry wt	17	13	15
Total Recoverable Copper	mg/kg dry wt	8	4	13
Total Recoverable Lead	mg/kg dry wt	23	10.5	39
Total Recoverable Nickel	mg/kg dry wt	12	11	10
Total Recoverable Zinc	mg/kg dry wt	81	53	90

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
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	1-3

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

Testing was completed between 22-Nov-2025 and 25-Nov-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4038643	SPv1
Contact:	Nathan Cash C/- Tetra Tech Coffey (NZ) Limited PO Box 1872 Christchurch 8140	Date Received:	21-Nov-2025	
		Date Reported:	25-Nov-2025	
		Quote No:	142109	
		Order No:	773-CHCGE280252AC	
		Client Reference:	Earlsbrook Stage 2 Lot 254 Val	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2 - Lot 254 Val - 01 21-Nov-2025	S2 - Lot 254 Val - 02 21-Nov-2025	S2 - Lot 254 Val - 03 21-Nov-2025
Lab Number:		4038643.1	4038643.2	4038643.3
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	4	3	5
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	11	11
Total Recoverable Copper	mg/kg dry wt	5	4	6
Total Recoverable Lead	mg/kg dry wt	11.9	9.6	9.6
Total Recoverable Nickel	mg/kg dry wt	10	9	9
Total Recoverable Zinc	mg/kg dry wt	42	32	36

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
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	1-3

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

Testing was completed between 22-Nov-2025 and 25-Nov-2025. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4201467	SPv1
Contact:	Nathan Cash	Date Received:	02-May-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	07-May-2026	
	PO Box 13444	Quote No:	144792	
	Tauranga Central	Order No:	PO# CHC 45798	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 C.T South of Lot 4004 Val	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:		S2 - C.T-S.Lot 4004 Val - 01 01-May-2026
Lab Number:		4201467.1
Individual Tests		
Dry Matter	g/100g as rcvd	88
Heavy Metals, Screen Level		
Total Recoverable Arsenic	mg/kg dry wt	4
Total Recoverable Cadmium	mg/kg dry wt	< 0.10
Total Recoverable Chromium	mg/kg dry wt	15
Total Recoverable Copper	mg/kg dry wt	6
Total Recoverable Lead	mg/kg dry wt	14.8
Total Recoverable Nickel	mg/kg dry wt	11
Total Recoverable Zinc	mg/kg dry wt	49
Polycyclic Aromatic Hydrocarbons Screening in Soil*		
Total of Reported PAHs in Soil	mg/kg dry wt	< 0.3
1-Methylnaphthalene	mg/kg dry wt	< 0.012
2-Methylnaphthalene	mg/kg dry wt	< 0.012
Acenaphthylene	mg/kg dry wt	< 0.012
Acenaphthene	mg/kg dry wt	< 0.012
Anthracene	mg/kg dry wt	< 0.012
Benzo[a]anthracene	mg/kg dry wt	< 0.012
Benzo[a]pyrene (BAP)	mg/kg dry wt	< 0.012
Benzo[a]pyrene Potency Equivalency Factor (PEF) NES*	mg/kg dry wt	< 0.028
Benzo[a]pyrene Toxic Equivalence (TEF)*	mg/kg dry wt	< 0.028
Benzo[b]fluoranthene + Benzo[j] fluoranthene	mg/kg dry wt	< 0.012
Benzo[e]pyrene	mg/kg dry wt	< 0.012
Benzo[g,h,i]perylene	mg/kg dry wt	< 0.012
Benzo[k]fluoranthene	mg/kg dry wt	< 0.012
Chrysene	mg/kg dry wt	< 0.012
Dibenzo[a,h]anthracene	mg/kg dry wt	< 0.012
Fluoranthene	mg/kg dry wt	< 0.012
Fluorene	mg/kg dry wt	< 0.012
Indeno(1,2,3-c,d)pyrene	mg/kg dry wt	< 0.012
Naphthalene	mg/kg dry wt	< 0.06
Perylene	mg/kg dry wt	< 0.012
Phenanthrene	mg/kg dry wt	< 0.012
Pyrene	mg/kg dry wt	< 0.012



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Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1
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
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1
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
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	1
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
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

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

Testing was completed between 05-May-2026 and 07-May-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Graham Corban MSc Tech (Hons)
Client Services Manager - Environmental

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4118344	A2Pv1
Contact:	Nathan Cash	Date Received:	03-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	06-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Cap Stockpile	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-L.F-Cap - 01 03-Mar-2026	S2-L.F-Cap - 02 03-Mar-2026	S2-L.F-Cap - 03 03-Mar-2026
Lab Number:	4118344.1	4118344.2	4118344.3
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 806.8	g 598.3	g 618.0
Dry Weight	g 652.5	g 484.4	g 475.3
Moisture*	% 19	% 19	% 23
Sample Fraction >10mm	g dry wt 183.4	g dry wt 56.1	g dry wt 190.4
Sample Fraction <10mm to >2mm	g dry wt 125.1	g dry wt 80.7	g dry wt 136.4
Sample Fraction <2mm	g dry wt 342.8	g dry wt 347.4	g dry wt 147.5
<2mm Subsample Weight	g dry wt 56.4	g dry wt 52.2	g dry wt 55.0
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-3
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-3
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-3
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3

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

Testing was completed on 06-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayan BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4118327	SPV1
Contact:	Nathan Cash	Date Received:	03-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	05-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Cap Stockpile	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-L.F-Cap - 01 03-Mar-2026	S2-L.F-Cap - 02 03-Mar-2026	S2-L.F-Cap - 03 03-Mar-2026	S2-L.F-Cap - 04 03-Mar-2026
Lab Number:	4118327.1	4118327.2	4118327.3	4118327.4
Heavy Metals, Screen Level				
Total Recoverable Arsenic	mg/kg dry wt	4	3	5
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.13	< 0.10
Total Recoverable Chromium	mg/kg dry wt	14	14	16
Total Recoverable Copper	mg/kg dry wt	8	9	12
Total Recoverable Lead	mg/kg dry wt	15.3	14.8	19.8
Total Recoverable Nickel	mg/kg dry wt	11	10	13
Total Recoverable Zinc	mg/kg dry wt	60	60	67

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
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	1-4

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

Testing was completed between 04-Mar-2026 and 05-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Martin Cowell - BSc
Client Services Manager - Environmental



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Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142327	A2Pv1
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Cap Stockpile 100's	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-L.F-Cap-SP102 18-Mar-2026	S2-L.F-Cap-SP103 18-Mar-2026	S2-L.F-Cap-SP106 18-Mar-2026
Lab Number:	4142327.1	4142327.2	4142327.3
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 623.0	g 676.7	g 656.1
Dry Weight	g 512.6	g 558.2	g 532.0
Moisture*	% 18	% 18	% 19
Sample Fraction >10mm	g dry wt 15.2	g dry wt 2.2	g dry wt 25.6
Sample Fraction <10mm to >2mm	g dry wt 93.8	g dry wt 93.1	g dry wt 88.2
Sample Fraction <2mm	g dry wt 402.8	g dry wt 461.6	g dry wt 416.9
<2mm Subsample Weight	g dry wt 51.8	g dry wt 54.0	g dry wt 51.2
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



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Summary of Methods

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Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-3
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-3
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-3
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-3
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-3
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-3
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-3

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

Testing was completed on 23-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayan BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142326	SPv1
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook stage 2 Landfill Cap Stockpile 100's	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-L.F-Cap - SP101	S2-L.F-Cap - SP102	S2-L.F-Cap - SP103	S2-L.F-Cap - SP104	S2-L.F-Cap - SP105
	18-Mar-2026	18-Mar-2026	18-Mar-2026	18-Mar-2026	18-Mar-2026
Lab Number:	4142326.1	4142326.2	4142326.3	4142326.4	4142326.5

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	4	3	4	3	3
Total Recoverable Cadmium	mg/kg dry wt	0.12	0.14	0.18	0.14	0.18
Total Recoverable Chromium	mg/kg dry wt	14	14	15	14	12
Total Recoverable Copper	mg/kg dry wt	11	12	14	12	10
Total Recoverable Lead	mg/kg dry wt	25	28	26	18.2	20
Total Recoverable Nickel	mg/kg dry wt	8	10	10	10	9
Total Recoverable Zinc	mg/kg dry wt	63	71	89	70	108

Sample Name:	S2-L.F-Cap - SP106 18-Mar-2026
Lab Number:	4142326.6

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	3
Total Recoverable Cadmium	mg/kg dry wt	0.12
Total Recoverable Chromium	mg/kg dry wt	13
Total Recoverable Copper	mg/kg dry wt	11
Total Recoverable Lead	mg/kg dry wt	18.3
Total Recoverable Nickel	mg/kg dry wt	9
Total Recoverable Zinc	mg/kg dry wt	69

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
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	1-6



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

Testing was completed between 19-Mar-2026 and 23-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Yu-Hsuan (Coco) Hsueh BSc (Tech)
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4177514	A2Pv1
Contact:	Nathan Cash	Date Received:	14-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	15-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHCH 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Cap Stockpile 200's	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-L.F Cap SP-201 14-Apr-2026	S2-L.F Cap SP-203 14-Apr-2026	S2-L.F Cap SP-205 14-Apr-2026	S2-L.F Cap SP-207 14-Apr-2026	S2-L.F Cap SP-209 14-Apr-2026
Lab Number:	4177514.1	4177514.2	4177514.3	4177514.4	4177514.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 671.9	g 779.7	g 774.0	g 635.4	g 653.5
Dry Weight	g 529.7	g 697.5	g 710.1	g 548.8	g 579.1
Moisture*	% 21	% 11	% 8	% 14	% 11
Sample Fraction >10mm	g dry wt 13.4	g dry wt 56.6	g dry wt 49.2	g dry wt 77.0	g dry wt 76.4
Sample Fraction <10mm to >2mm	g dry wt 85.7	g dry wt 175.4	g dry wt 215.2	g dry wt 114.7	g dry wt 124.0
Sample Fraction <2mm	g dry wt 429.6	g dry wt 463.6	g dry wt 443.4	g dry wt 356.0	g dry wt 377.4
<2mm Subsample Weight	g dry wt 53.7	g dry wt 51.8	g dry wt 54.4	g dry wt 50.4	g dry wt 51.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001

Sample Name:	S2-L.F Cap SP-211 14-Apr-2026
Lab Number:	4177514.6
Asbestos Presence / Absence	Asbestos NOT detected.
Description of Asbestos Form	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001
As Received Weight	g 685.3
Dry Weight	g 602.5
Moisture*	% 12



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Sample Type: Soil		
Sample Name:		S2-L.F Cap SP-211 14-Apr-2026
Lab Number:		4177514.6
Sample Fraction >10mm	g dry wt	86.1
Sample Fraction <10mm to >2mm	g dry wt	190.6
Sample Fraction <2mm	g dry wt	324.4
<2mm Subsample Weight	g dry wt	55.3
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-6
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-6
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-6
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-6
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-6
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-6

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-6
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-6

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

Testing was completed on 15-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

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Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4177513	SPv1
Contact:	Nathan Cash	Date Received:	14-Apr-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	17-Apr-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHCH 144390	
	Tauranga 3141	Client Reference:	Earlsbrook Stage 2 Landfill Cap Stockpile 200's	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2-L.F Cap SP-201 14-Apr-2026	S2-L.F Cap SP-202 14-Apr-2026	S2-L.F Cap SP-203 14-Apr-2026	S2-L.F Cap SP-204 14-Apr-2026	S2-L.F Cap SP-205 14-Apr-2026
Lab Number:	4177513.1	4177513.2	4177513.3	4177513.4	4177513.5

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	4	4	3	5	2
Total Recoverable Cadmium	mg/kg dry wt	0.16	0.12	0.11	0.16	< 0.10
Total Recoverable Chromium	mg/kg dry wt	16	13	13	14	11
Total Recoverable Copper	mg/kg dry wt	16	8	8	12	4
Total Recoverable Lead	mg/kg dry wt	26	17.2	15.6	31	14.2
Total Recoverable Nickel	mg/kg dry wt	11	9	9	9	8
Total Recoverable Zinc	mg/kg dry wt	86	64	62	101	46

Sample Name:	S2-L.F Cap SP-206 14-Apr-2026	S2-L.F Cap SP-207 14-Apr-2026	S2-L.F Cap SP-208 14-Apr-2026	S2-L.F Cap SP-209 14-Apr-2026	S2-L.F Cap SP-210 14-Apr-2026
Lab Number:	4177513.6	4177513.7	4177513.8	4177513.9	4177513.10

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	3	4	4	3	3
Total Recoverable Cadmium	mg/kg dry wt	0.12	0.17	0.17	0.14	0.13
Total Recoverable Chromium	mg/kg dry wt	13	15	15	13	13
Total Recoverable Copper	mg/kg dry wt	12	14	16	10	9
Total Recoverable Lead	mg/kg dry wt	19.0	58	29	18.8	18.9
Total Recoverable Nickel	mg/kg dry wt	10	9	10	9	9
Total Recoverable Zinc	mg/kg dry wt	71	105	82	69	67

Sample Name:	S2-L.F Cap SP-211 14-Apr-2026	S2-L.F Cap SP-212 14-Apr-2026
Lab Number:	4177513.11	4177513.12

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	3	3
Total Recoverable Cadmium	mg/kg dry wt	0.15	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	10
Total Recoverable Copper	mg/kg dry wt	8	6
Total Recoverable Lead	mg/kg dry wt	18.1	13.4
Total Recoverable Nickel	mg/kg dry wt	8	7
Total Recoverable Zinc	mg/kg dry wt	67	52

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
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	1-12

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

Testing was completed between 15-Apr-2026 and 17-Apr-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142329	A2Pv1
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	23-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - L.F Topsoil Stockpile 100s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - L.F Topsoil SP - 101 18-Mar-2026	S2 - L.F Topsoil SP - 102 18-Mar-2026	S2 - L.F Topsoil SP - 105 18-Mar-2026	S2 - L.F Topsoil SP - 107 18-Mar-2026	S2 - L.F Topsoil SP - 109 18-Mar-2026
Lab Number:	4142329.1	4142329.2	4142329.3	4142329.4	4142329.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
Asbestos as Asbestos Fines as % of Total Sample*	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001	% w/w < 0.001
As Received Weight	g 791.5	g 743.8	g 660.8	g 668.3	g 735.1
Dry Weight	g 676.0	g 630.4	g 552.7	g 576.8	g 619.6
Moisture*	% 15	% 15	% 16	% 14	% 16
Sample Fraction >10mm	g dry wt 107.4	g dry wt 105.1	g dry wt 29.4	g dry wt 48.2	g dry wt 73.1
Sample Fraction <10mm to >2mm	g dry wt 175.3	g dry wt 137.1	g dry wt 101.2	g dry wt 198.9	g dry wt 199.6
Sample Fraction <2mm	g dry wt 391.6	g dry wt 386.5	g dry wt 421.1	g dry wt 328.4	g dry wt 345.5
<2mm Subsample Weight	g dry wt 53.1	g dry wt 54.7	g dry wt 55.7	g dry wt 56.4	g dry wt 55.8
Weight of Asbestos in ACM (Non-Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001	g dry wt < 0.00001



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Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil**.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-5
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-5
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-5
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-5
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-5
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5

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

Testing was completed on 23-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayen BAPSc
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 2

Client:	CMW Geotechnical NZ Limited T/A CMW Geoscience	Lab No:	4142328	SPV2
Contact:	Nathan Cash	Date Received:	18-Mar-2026	
	C/- CMW Geotechnical NZ Limited T/A CMW Geoscience	Date Reported:	25-Mar-2026	
	PO Box 13444	Quote No:	143665	
	Tauranga Central	Order No:	PO# CHC 144390	
	Tauranga 3141	Client Reference:	Earlsbrook - Stage 2 - L.F Topsoil Stockpile 100s	
		Add. Client Ref:	CHC2026-0002	
		Submitted By:	Nathan Cash	

Sample Type: Soil

Sample Name:	S2 - L.F Topsoil SP - 101	S2 - L.F Topsoil SP - 102	S2 - L.F Topsoil SP - 103	S2 - L.F Topsoil SP - 104	S2 - L.F Topsoil SP - 105
	18-Mar-2026	18-Mar-2026	18-Mar-2026	18-Mar-2026	18-Mar-2026
Lab Number:	4142328.1	4142328.2	4142328.3	4142328.4	4142328.5

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	4	3	3	3	3
Total Recoverable Cadmium	mg/kg dry wt	0.17	0.13	0.12	0.12	0.16
Total Recoverable Chromium	mg/kg dry wt	13	12	13	12	13
Total Recoverable Copper	mg/kg dry wt	10	8	8	8	9
Total Recoverable Lead	mg/kg dry wt	21	15.9	15.7	15.4	15.4
Total Recoverable Nickel	mg/kg dry wt	9	9	9	9	10
Total Recoverable Zinc	mg/kg dry wt	76	59	59	61	62

Sample Name:	S2 - L.F Topsoil SP - 106 18-Mar-2026	S2 - L.F Topsoil SP - 107 18-Mar-2026	S2 - L.F Topsoil SP - 108 18-Mar-2026	S2 - L.F Topsoil SP - 109 18-Mar-2026
Lab Number:	4142328.6	4142328.7	4142328.8	4142328.9

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	4	4	3	4
Total Recoverable Cadmium	mg/kg dry wt	0.22	0.17	0.14	0.20
Total Recoverable Chromium	mg/kg dry wt	12	14	14	13
Total Recoverable Copper	mg/kg dry wt	14	9	10	10
Total Recoverable Lead	mg/kg dry wt	86	27	19.2	22
Total Recoverable Nickel	mg/kg dry wt	8	9	10	9
Total Recoverable Zinc	mg/kg dry wt	104	65	68	89

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
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

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

Testing was completed between 19-Mar-2026 and 24-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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A handwritten signature in blue ink, appearing to read 'Graham Corban', is positioned above the printed name.

Graham Corban MSc Tech (Hons)
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 3

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4092516	A2Pv1
Contact:	Tim Farrant	Date Received:	05-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	11-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCGE280252AC	
		Client Reference:	S2-Offalpit Cap Stockpile 1	
		Submitted By:	Tim Farrant	

Sample Type: Soil					
Sample Name:	S2-Offalpit Cap SP1-01 05-Feb-2026	S2-Offalpit Cap SP1-02 05-Feb-2026	S2-Offalpit Cap SP1-03 05-Feb-2026	S2-Offalpit Cap SP1-04 05-Feb-2026	S2-Offalpit Cap SP1-05 05-Feb-2026
Lab Number:	4092516.1	4092516.2	4092516.3	4092516.4	4092516.5
Asbestos Presence / Absence	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.	Asbestos NOT detected.
Description of Asbestos Form	-	-	-	-	-
Asbestos in ACM as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Fibrous Asbestos as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos as Asbestos Fines as % of Total Sample* % w/w	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As Received Weight g	874.0	736.8	864.9	814.7	753.0
Dry Weight g	816.7	692.2	782.0	744.8	708.8
Moisture* %	7	6	10	9	6
Sample Fraction >10mm g dry wt	193.5	192.0	147.6	181.5	179.7
Sample Fraction <10mm to >2mm g dry wt	189.8	145.4	185.2	146.9	181.2
Sample Fraction <2mm g dry wt	432.5	354.4	448.4	415.1	347.4
<2mm Subsample Weight g dry wt	52.0	54.8	52.6	54.9	54.2
Weight of Asbestos in ACM (Non-Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Fibrous Asbestos (Friable) g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Weight of Asbestos as Asbestos Fines (Friable)* g dry wt	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Please refer to the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-5
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-5
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-5
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-5
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-5
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-5
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-5

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-5

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

Testing was completed on 11-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

Certificate of Analysis

Page 1 of 1

Client:	Tetra Tech Coffey (NZ) Limited	Lab No:	4092520	SPV1
Contact:	Tim Farrant	Date Received:	05-Feb-2026	
	C/- Tetra Tech Coffey (NZ) Limited	Date Reported:	10-Feb-2026	
	PO Box 1872	Quote No:	142109	
	Christchurch 8140	Order No:	773-CHCG280252AC	
		Client Reference:	S2-Offalpit Cap Stockpile 1	
		Submitted By:	Tim Farrant	

Sample Type: Soil

Sample Name:	S2-Offalpit Cap SP1-01 05-Feb-2026	S2-Offalpit Cap SP1-02 05-Feb-2026	S2-Offalpit Cap SP1-03 05-Feb-2026	S2-Offalpit Cap SP1-04 05-Feb-2026	S2-Offalpit Cap SP1-05 05-Feb-2026
Lab Number:	4092520.1	4092520.2	4092520.3	4092520.4	4092520.5
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	4	4	6	6
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	12	12	14	13
Total Recoverable Copper	mg/kg dry wt	6	5	11	9
Total Recoverable Lead	mg/kg dry wt	15.2	11.5	39	20
Total Recoverable Nickel	mg/kg dry wt	10	10	10	10
Total Recoverable Zinc	mg/kg dry wt	40	39	48	50

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
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	1-5

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

Testing was completed between 07-Feb-2026 and 10-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Kim Harrison MSc
Client Services Manager - Environmental

APPENDIX D

Disposal Dockets

Appendix D1 – 1532 Springs Road Disposal Dockets



TAX INVOICE

Maugers Contracting Ltd
PO Box 141-74
Harewood
Christchurch 8544
NEW ZEALAND

Invoice Date
30 Sep 2025

Invoice Number
33394 - MGCL

Reference
PERMITTED
WASTE

GST Number
132-654-352

Canterbury
Environmental Solutions
Limited
322A King Street
Temuka 7920
NEW ZEALAND

Description	Quantity	Unit Price	Amount NZD
P/O#:PERMITTED WASTE, 29-09-2025, Carrier:Maugers Contracting Ltd, Weigh#:2380, CESL#00413-Medium level soil, Job no:4404	31.22	155.00	4,839.10
P/O#:PERMITTED WASTE, 29-09-2025, Carrier:Maugers Contracting Ltd, Weigh#:2379, CESL#00413-Medium level soil, Job no:4404	29.12	155.00	4,513.60
P/O#:PERMITTED WASTE, 29-09-2025, Carrier:Maugers Contracting Ltd, Weigh#:2375, CESL#00413-Medium level soil, Job no:4404	23.46	155.00	3,636.30
Subtotal			12,989.00
Total GST 15%			1,948.36
Amount Due NZD			14,937.36

Due Date: 20 Oct 2025

Payment may be made by Direct Credit to: Canterbury Environmental Solutions Ltd

Westpac Timaru 03-0887-0045372-00

PAYMENT ADVICE

To: Canterbury Environmental Solutions Limited
322A King Street
Temuka 7920
NEW ZEALAND

Customer Maugers Contracting Ltd

Invoice Number 33394 - MGCL

Amount Due 14,937.36

Due Date 20 Oct 2025

Amount Enclosed

Enter the amount you are paying above

Appendix D2 – Asbestos Pipeline Disposal Dockets

Protranz Earthmoving
Leggett Road
Templeton, Christchurch 7678

Ticket No. : 24880
Transporter: PROTRANZ
Rego : FGW627
Customer : MAUGERS
Product : CONTAMINATED
Supplier : PROTRANZ
Job Number : 25069
Location : EARLSBROOK LINCOLN

Deck : SUM
Weigh In : 14/10/2025 9:32:57 am
Gross[G] : 24660 kg
Tare[T] : 15500 kg
Net[N] : 9160 kg

Protranz Earthmoving
Leggett Road
Templeton, Christchurch 7678

Ticket No. :	24862
Transporter:	PROTRANZ
Rego :	FGW627
Customer :	MAUGERS
Product :	CONTAMINATED
Supplier :	PROTRANZ
Job Number :	25069
Location :	EARLSBROOK LINCOLN
Deck :	SUM
Weigh In :	13/10/2025 3:23:17 pm
Gross[G] :	26040 kg
Tare[T] :	15540 kg
Net[N] :	10500 kg

Protranz Earthmoving
Leggett Road
Templeton, Christchurch 7678

Ticket No. :	24889
Transporter:	PROTRANZ
Rego :	FGW627
Customer :	MAUGERS
Product :	CONTAMINATED
Supplier :	PROTRANZ
Job Number :	25069
Location :	EARLSBROOK LINCOLN

Deck :	SUM
Weigh In :	14/10/2025 11:41:58 am
Gross[G] :	24380 kg
Tare[T] :	15500 kg
Net[N] :	8880 kg

Protranz Earthmoving
Leggett Road
Templeton, Christchurch 7678

Ticket No. :	24853
Transporter:	PROTRANZ
Rego :	FGW627
Customer :	MAUGERS
Product :	CONTAMINATED
Supplier :	PROTRANZ
Job Number :	25069
Location :	EARLSBROOK LINCOLN

Deck :	SUM
Weigh In :	13/10/2025 2:01:07 pm
Gross[G] :	24040 kg
Tare[T] :	15540 kg
Net[N] :	8500 kg

Protranz Earthmoving
Leggett Road
Templeton, Christchurch 7678

cket No. :	24851
nsporter:	PROTRANZ
o :	FGW627
tomer :	MAUGERS
duct :	CONTAMINATED
plier :	PROTRANZ
Number :	25069
ation :	EARLSBROOK LINCOLN
k :	SUM
gh In :	13/10/2025 12:11:37 pm
ss[G] :	25960 kg
gh Out :	13/10/2025 1:06:56 pm
e[T] :	15540 kg
[N] :	10420 kg

Protranz Earthmoving
Leggett Road
Templeton, Christchurch 7678

Ticket No. :	24867
Transporter:	PROTRANZ
Rego :	FGW627
Customer :	MAUGERS
Product :	CONTAMINATED
Supplier :	PROTRANZ
Job Number :	25069
Location :	EARLSBROOK LINCOLN

Deck :	SUM
Weigh In :	13/10/2025 4:43:10 pm
Gross[G] :	26100 kg
Tare[T] :	15500 kg
Net[N] :	10600 kg

Protranz Earthmoving
Leggett Road
Templeton, Christchurch 7678

Ticket No. : 24874
Transporter: PROTRANZ
Rego : FGW627
Customer : MAUGERS
Product : CONTAMINATED
Supplier : PROTRANZ
Job Number : 25069
Location : EARLSBROOK LINCOLN

Deck : SUM
Weigh In : 14/10/2025 8:18:03 am
Gross[G] : 24820 kg
Tare[T] : 15500 kg
Net[N] : 9320 kg

Appendix D3 – Kate Valley Landfill Disposal Dockets

WM-CLE Kate Valley Landfill

WEIGHING DOCKET 1165261

24 Feb 2026 1:41 pm

Reg EUOKW Protranz Earthmoving Ltd

Tag Id 826402

Protranz Kenworth Dec 2016

Trailer PRO011

2nd Load: Special Waste

Permit Number : B1065

Billing Customer : Protranz Earthmoving Ltd

Manifest Number : 64183

Gross 24,520 Kg

Tare 7,380 Kg

Net 17,140 Kg

WM-CLE Kate Valley Landfill

WEIGHING DOCKET 1165357

25 Feb 2026 10:34 am

Reg EUOKW Protranz Earthmoving Ltd

Tag Id 826402

Protranz Kenworth Dec 2016

1st Load: Special Waste

Permit Number : B1065

Billing Customer : Protranz Earthmoving Ltd

Manifest Number : 64184

Gross 27,420 Kg

Tare 15,960 Kg

Net 11,460 Kg

WM-CLE Kate Valley Landfill

WEIGHING DOCKET 1165358

25 Feb 2026 10:34 am

Reg EUROKW Protranz Earthmoving Ltd
Tag Id 826402
Protranz Kenworth Dec 2016

Trailer PRO011

2nd Load: Special Waste

Permit Number : B1065

Billing Customer : Protranz Earthmoving Ltd

Manifest Number : 64184

Gross 23,060 Kg

Tare 7,380 Kg

Net 15,680 Kg

WM-CLE Kate Valley Landfill

WEIGHING DOCKET 1165214

24 Feb 2026 8:43 am

Reg EUROKW Protranz Earthmoving Ltd

Tag Id 826402

Protranz Kenworth Dec 2016

1st Load: Special Waste

Permit Number : B1065

Billing Customer : Protranz Earthmoving Ltd

Manifest Number : 64182

Gross	26,380 Kg
Tare	16,020 Kg
Net	10,360 Kg

WM-CLE Kate Valley Landfill

WEIGHING DOCKET 1165215

24 Feb 2026 8:43 am

Reg EUROKVV Protranz Earthmoving Ltd

Tag Id 826402

Protranz Kenworth Dec 2016

Trailer PRO011

2nd Load: Special Waste

Permit Number : B1065

Billing Customer : Protranz Earthmoving Ltd

Manifest Number : 64182

Gross 24,580 Kg

Tare 7,380 Kg

Net 17,200 Kg

WML-CLE Kate Valley Landfill

WEIGHING DOCKET 1165260
24 Feb 2026 1:41 pm

Reg EUOKW Protranz Earthmoving Ltd
Tag Id 826402
Protranz Kenworth Dec 2016

1st Load: Special Waste

Permit Number : B1065
Billing Customer : Protranz Earthmoving Ltd
Manifest Number : 64183

Gross	26,920 Kg
Tare	16,080 Kg
Net	10,840 Kg

WM-CLE Valley Landfill

WEIGHING DOCKET 1165165
23 Feb 2026 3:51 pm

Special Waste Manifest

MANIFEST No. 62200

Reg MBM655 Frews Contracting Ltd
Tag Id 152134
Frews Isuzu #708

Trailer FrewT1

2nd Load: Special Waste

Permit Number: B1030
Billing Customer: Frews (Chicken Body Parts & Off
Manifest Number: 62200Gross 25,820 Kg
Tare 8,720 Kg
Net 17,100 Kg

34378

Permit No. 1030

Contact Phone

Fax

(If different from Permit Holder above)

Contact Phone

Fax

Lab. Test No. (where applicable)

Batch I.D.

Date of Collection

23/2/26

One or two bins (circle)

1

2

D Waste Transporter Details

Immediate Container Turnaround Requested ☐

Transporter Name Sued

Address

Contact Person

Driver Name Adam

Contact Phone

Fax

Truck Registration MBM655

Container No. HB32

E To be completed at Landfill

Permit Verified ☐

Date of Arrival

Time of Arrival

Special handling ☐

Weighbridge Docket No.

Weight

GPS Disposal Location

N

E

RL

Disposal Time

Operator / Technician

Notes

WM-CLE Kate Valley Landfill

WEIGHING DOCKET 1165518
26 Feb 2026 2:52 pm

Special Waste Manifest

MANIFEST No. **64642**Reg MSB399 Frews Contracting Ltd
Tag Id 144027
Frews Isuzu (25/05/20)

Trailer 2N186

2nd Load: Special Waste

Permit Number: B1030
Billing Customer: Frews (Chicken Body Parts & Off
Manifest Number: 64642Gross 22,960 Kg
Tare 9,340 Kg
Net 13,620 Kg

34378

Permit No. **B1030**Contracting 1st
road
wood

Contact Phone

Fax

0274242455

(If different from Permit Holder above)

contracting

road Lincoln

Contact Phone

Fax

Lab. Test No. (where applicable)

Batch I.D.

Date of Collection

One or two bins (circle)

1

2

26 / 2 / 26

D Waste Transporter DetailsImmediate Container Turnaround Requested ☐Transporter Name **Frews**

Address

Contact Person

Driver Name **Nick**

Contact Phone

Fax

Truck Registration

Container No.

msb399

Hb28

E To be completed at LandfillPermit Verified ☐

Date of Arrival

Time of Arrival

Special handling ☐

Weighbridge Docket No.

Weight

GPS Disposal Location

N

E

RL

Disposal Time

Operator / Technician

Notes

Generator Copy

March 2025

Issue: 8

LMP 4-3 F

PO Box 142 Amberley 7441
Phone: 03 359 1800
Email: kvpad@wm.nz



Appendix D4 – Canterbury Environmental Solutions Disposal Dockets

TAIKO LANDFILL

Ticket No. 3301

Po Number:

Customer: Maughers Contracting Ltd

Regn: Q0H151

Time In: 12/12/2023 08:03:26

Weight In: 38,360 kg

Weight In Deck 1: 18,700 kg

Weight In Deck 2: 19,660 kg

Weight Type: STORED TARE WEIGHT

Job #: 4434

Site: TAIKO

Product: CESL#00413-Medium level soil

Gross: 38,360 kg

Tare: 18,400 kg

Net: 19,960 kg

TAIKO LANDFILL

Ticket No. 3302**Po Number:****Customer:** Maughers Contracting Ltd**Reg:** NP8887**Time In:** 12/12/2023 08:08:05**Weight In:** 33,400 kg**Weight In Deck 1:** 17,840 kg**Weight In Deck 2:** 15,560 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAIKO**Product:** CESL#00413-Medium level soil**Gross:** 33,400 kg**Tare:** 18,400 kg**Net:** 15,000 kg

TAIKO LANDFILL

Ticket No. 3320

Po Number:

Customer: Maughers Contracting Ltd

Regn: NP8887

Time In: 12/12/2023 14:45:56

Weight In: 36,620 kg

Weight In Deck 1: 23,080 kg

Weight In Deck 2: 16,540 kg

Weight Type: STORED TARE WEIGHT

Job #: 4434

Site: TAIKO

Product: CESL#00413-Medium level soil

Gross: 36,620 kg

Tare: 18,400 kg

Net: 18,220 kg

TAIKO LANDFILL

Ticket No. 3322**Po Number:****Customer:** Maughers Contracting Ltd**Regn:** Q0H151**Time In:** 12/12/2023 15:17:25**Weight In:** 32,720 kg**Weight In Deck 1:** 17,700 kg**Weight In Deck 2:** 15,020 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAIKO**Product:** CESL#00413-Medium level soil**Gross:** 32,720 kg**Tare:** 18,400 kg**Net:** 14,320 kg

TARCO LANDFILL

Ticket No. 3334

Po Number:

Customer: Maughers Contracting Ltd

Reg#: Q0H151

Time In: 11/12/2023 09:20:46

Weight In: 44,440 kg

Weight In Desk 1: 21,760 kg

Weight In Desk 2: 22,680 kg

Weight Type: STORED TARE WEIGHT

Job #: 4434

Site: TARCO

Product: CESL#00413-Medium level soil

Gross: 44,440 kg

Tare: 18,400 kg

Net: 26,040 kg

TAIKO LANDFILL

Ticket No. 3335**Po Number:****Customer:** Maughers Contracting Ltd**Reg:** NP8687**Time In:** 11/12/2023 09:35:06**Weight In:** 46.040 kg**Weight In Desk 1:** 23.300 kg**Weight In Desk 2:** 22.740 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAIKO**Product:** CESL#00413-Medium level soil**Gross:** 46.040 kg**Tare:** 18.400 kg**Net:** 27.640 kg

TAIKO LANDFILL

Ticket No. 3352**Po Number:****Customer:** Maughers Contracting Ltd**Regn:** H3C788**Time In:** 12/12/2025 07:39:45**Weight In:** 38,800 kg**Weight In Deck 1:** 19,400 kg**Weight In Deck 2:** 19,400 kg**Time Out:** 12/12/2025 07:55:19**Weight Out:** 17,720 kg**Weight Out Scale 1:** 6,840 kg**Weight Out Scale 2:** 11,080 kg**Weight Type:** 2 PASS WIDTH**Job #:** 4404**Site:** TAIKO**Product:** CESS1 #00534 Medium level soil**Gross:** 38,800 kg**Tare:** 17,720 kg**Net:** 21,080 kg

TAIKO LANDFILL

Ticket No. 3561

Po Number:

Customer: Maughers Contracting Ltd

Regn: H3C788

Time In: 13/01/2025 07:41:35

Weight In: 40,800 kg

Weight In Deck 1: 23,240 kg

Weight In Deck 2: 23,560 kg

Weight Type: STORED TARE WEIGHT

Job #: 4434

Site: TAIKO

Product: CESL#00413-Medium level soil

Gross: 40,800 kg

Tare: 17,700 kg

Net: 23,100 kg

TAKO LANDFILL

Ticket No. 3566**Po Number:****Customer:** Maughers Contracting Ltd**Reg:** Q0H151**Time In:** 11/31/2025 11:19:29**Weight In:** 42,940 kg**Weight In Deck 1:** 20,120 kg**Weight In Deck 2:** 22,820 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAKO**Product:** CESL#00413-Medium level soil**Gross:** 42,940 kg**Tare:** 18,400 kg**Net:** 24,540 kg

TAIKO LANDFILL

Ticket No. 3568**Po Number:****Customer:** Maughers Contracting Ltd**Reg:** NP8687**Time In:** 13/01/2025 12:30:45**Weight In:** 39,780 kg**Weight In Deck 1:** 19,760 kg**Weight In Deck 2:** 20,020 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAIKO**Product:** CESL#00413-Medium level soil**Gross:** 39,780 kg**Tare:** 18,400 kg**Net:** 21,380 kg

TAIKO LANDFILL

Ticket No. 3569**Po Number:****Customer:** Maughers Contracting Ltd**Reg:** H3C788**Time In:** 13/01/2025 13:52:25**Weight In:** 33,040 kg**Weight In Deck 1:** 17,560 kg**Weight In Deck 2:** 15,480 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAIKO**Product:** CESL#00413-Medium level soil**Gross:** 33,040 kg**Tare:** 17,700 kg**Net:** 15,340 kg

TARCO LANDFILL

Ticket No. 3574

Po Number:

Customer: Maughers Contracting Ltd

Regn: Q0H151

Time In: 14/01/2025 08:02:22

Weight In: 32,940 kg

Weight In Desk 1: 17,520 kg

Weight In Desk 2: 15,420 kg

Weight Type: STORED TARE WEIGHT

Job #: 4434

Site: TARCO

Product: CESL#00413-Medium level soil

Gross: 32,940 kg

Tare: 18,400 kg

Net: 14,540 kg

TAIKO LANDFILL

Ticket No. 3590**Po Number:****Customer:** Maughers Contracting Ltd**Regn:** H3C788**Time In:** 15/01/2025 13:34:22**Weight In:** 35.540 kg**Weight In Desk 1:** 17.940 kg**Weight In Desk 2:** 17.600 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAIKO**Product:** CESL#00413-Medium level soil**Gross:** 35.540 kg**Tare:** 17.700 kg**Net:** 17.840 kg

TAIKO LANDFILL

Ticket No. 3597

Po Number:

Customer: Maughers Contracting Ltd

Reg#: H3C788

Time In: 16/01/2025 09:45:39

Weight In: 39,320 kg

Weight In Deck 1: 20,000 kg

Weight In Deck 2: 19,320 kg

Weight Type: STORED TARE WEIGHT

Job #: 4434

Site: TAIKO

Product: CESL#00413-Medium level soil

Gross: 39,320 kg

Tare: 17,700 kg

Net: 21,620 kg

TAIKO LANDFILL

Ticket No. 3650**Po Number:****Customer:** Maughers Contracting Ltd**Regn:** QWP720**Time In:** 21/01/2025 09:20:41**Weight In:** 40.900 kg**Weight In Deck 1:** 19.820 kg**Weight In Deck 2:** 21.160 kg**Weight Type:** STORED TARE WEIGHT**Job #:** 4434**Site:** TAIKO**Product:** CESL#00413-Medium level soil**Gross:** 40.900 kg**Tare:** 18.000 kg**Net:** 22.900 kg

TAIKO LANDFILL

Ticket No. 3651

Po Number:

Customer: Masgers Contracting Ltd

Reg#: H3C788

Time In: 21/01/2026 09:39:07

Weight In: 43,800 kg

Weight In Deck 1: 22,500 kg

Weight In Deck 2: 21,300 kg

Time Out: 21/01/2026 09:50:56

Weight Out: 18,120 kg

Weight Out Scale 1: 7,040 kg

Weight Out Scale 2: 11,080 kg

Weight Type: 2 PASS WIDTH

Job #: 4404

Site: TAIKO

Product: CESS1 #00413 Medium level soil

Gross: 43,800 kg

Tare: 18,120 kg

Net: 25,680 kg

TAIKO LANDFILL

Ticket No. 3160**Po Number:****Customer:** Masgers Contracting Ltd**Reg:** Q08151**Time In:** 21/01/2025 13:31:44**Weight In:** 43,600 kg**Weight In Deck 1:** 22,600 kg**Weight In Deck 2:** 23,720 kg**Time Out:** 21/01/2025 13:52:38**Weight Out:** 18,120 kg**Weight Out Scale 1:** 11,500 kg**Weight Out Scale 2:** 6,620 kg**Weight Type:** 2 PASS WIDTH**Job #:** 4404**Site:** TAIKO**Product:** CESS1 #00413 Medium level soil**Gross:** 43,600 kg**Tare:** 18,120 kg**Net:** 25,200 kg

 ENVIRO SOLUTIONS
TAIKO LANDFILL

Ticket No. 3663

Po Number:

Customer: Protranz Earthmoving
Limited

Rego: MAG332

Time In: 21/01/2026 13:51:41

Weight In: 48,140 kg

Weight In Deck
1: 24,460 kg

Weight In Deck
2: 23,680 kg

Time Out: 21/01/2026 14:33:17

Weight Out: 24,280 kg

Weight Out
Scale 1: 8,540 kg

Weight Out
Scale 2: 15,740 kg

Weight Type: 2 PASS WEIGH

Job #: 50002

Site: TAIKO

Product: CESL#00563-Low level
asbestos soil

Gross: 48,140 kg

Tare: 24,280 kg

Net: 23,860 kg

Print time: 21/01/2026 at 02:33 PM

 ENVIRO SOLUTIONS
TAIKO LANDFILL

Ticket No. 3665

Po Number:

Customer: Protranz Earthmoving
Limited

Rego: NJC501

Time In: 21/01/2026 14:02:38

Weight In: 47,720 kg

Weight In Deck
1: 23,740 kg

Weight In Deck
2: 23,980 kg

Time Out: 21/01/2026 14:35:29

Weight Out: 23,220 kg

Weight Out
Scale 1: 7,420 kg

Weight Out
Scale 2: 15,800 kg

Weight Type: 2 PASS WEIGH

Job #: 50002

Site: TAIKO

Product: CESL#00563-Low level
asbestos soil

Gross: 47,720 kg

Tare: 23,220 kg

Net: 24,500 kg

TAIKO LANDFILL

Ticket No. 3678**Po Number:****Customer:** Masgers Contracting Ltd**Regn:** Q04151**Time In:** 22/01/2025 09:21:33**Weight In:** 43,900 kg**Weight In Deck 1:** 21,300 kg**Weight In Deck 2:** 22,520 kg**Time Out:** 22/01/2025 09:33:49**Weight Out:** 18,200 kg**Weight Out Scale 1:** 6,660 kg**Weight Out Scale 2:** 11,540 kg**Weight Type:** 2 PASS WIDTH**Job #:** 4404**Site:** TAIKO**Product:** CESS1 #00413 Medium level soil**Gross:** 43,900 kg**Tare:** 18,200 kg**Net:** 25,700 kg

TAIKO LANDFILL

Ticket No. **4162**

Po Number:

Customer: Maugers Contracting Ltd

Rego: QWP720

Time In: 20/02/2025 12:00:18

Weight In: 34,280 kg

Weight In Deck 1: 19,660 kg

Weight In Deck 2: 14,620 kg

Weight Type: STOPPED TARE WEIGHT

Job #: 4404

Site: TAIKO

Product: CESSL000413-Medium level soil

Gross: 34,280 kg

Tare: 18,800 kg

Net: 15,480 kg

Dear Customer

The following product has been received

Date: 20/01/2026

Product: CESL00556 High Soil

Order: Earlsbrook Stage 3

Carrier: PT

Con Note: na

Weigh Docket: 65194

Tonnes: 29.46

Dear Customer

The following product has been received

Date: 20/01/2026

Product: CESL00556 High Soil

Order: Earlsbrook Stage 3

Carrier: PT

Con Note: na

Weigh Docket: 65195

Tonnes: 24.56

Dear Customer

The following product has been received

Date: 21/01/2026

Product: CESL00556 High Soil

Order: Earlsbrook Stage 3

Carrier: PT

Con Note: na

Weigh Docket: 65199

Tonnes: 25.62

Dear Customer

The following product has been received

Date: 21/01/2026

Product: CESL00556 High Soil

Order: Earlsbrook Stage 3

Carrier: PT

Con Note: na

Weigh Docket: 65200

Tonnes: 23.44

Dear Customer

The following product has been received

Date: 21/01/2026

Product: CESL00556 High Soil

Order: Earlsbrook Stage 3

Carrier: Self

Con Note: na

Weigh Docket: 65203

Tonnes: 24.61



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