Soil Contamination Risk
Site Validation Report

642 Ellesmere Road, Lincoln

February 2023

QUALITY CONTROL AND CERTIFICATION SHEET

Client: Fulton Hogan Land Development Ltd

Date of issue: 23 February 2023

Report written by:

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1 Executive Summary

The subject of this investigation is located at 642 Ellesmere Road, Lincoln. The site is the subject of a proposed subdivision. The proposed subdivision will involve the change of use of the land, soil disturbance activities and possible off-site disposal of soils. As such, an assessment under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Health) Regulations 2011 (NESCS) has been undertaken. It is noted also that Momentum Environmental Ltd (MEL) is obligated to consider the requirements of Section 10(4) of the Health and Safety at Work (Asbestos) Regulations 2016.

A Preliminary Site Investigation (PSI) was undertaken by MEL in February 2022. The review of historical aerial photographs undertaken as part of the PSI indicated that prior to the 1940's a small number of buildings had been sited generally near the centre of the site within the dwelling's curtilage area. These had been demolished over the years. Given the age of the buildings it was likely that this would pose a risk of contamination from lead-based paint and/or asbestos containing materials. The report concluded that a risk had been identified and a Detailed Site Investigation (DSI) was recommended.

A combined DSI/Remediation Action Plan (RAP) was completed by MEL in March 2022. Soil sampling showed arsenic and/or lead contamination exceeding the 'residential 10% produce' soil guideline values (SGV) at eight sample locations surrounding the dwelling. The elevated concentrations appeared to extend to a minimum depth of 250mm. The maximum lead concentration recorded at the site was 851mg/kg compared to the 'residential 10% produce' SGV of 210mg/kg. The maximum arsenic concentration recorded at the site was 42.6mg/kg compared to the 'residential 10% produce' SGV of 20mg/kg. No asbestos was detected in the tested samples collected from the site.

Based on the soil sample results and the intended residential use of the site, it was recommended that the site be remediated via excavation and disposal of contaminated material to an authorised disposal facility. A Remediation Action Plan (RAP) and Site Management Plan were developed to support the remediation of the site.

Remediation of lead and arsenic contaminated soils on the site commenced in early January 2023 with excavations to an average depth of 100-200mm across the remediation area. Following the initial scrape, XRF testing indicated large areas required further excavations due to concentrations of both arsenic and lead exceeding the 'residential 10% produce' soil guideline value (SGV). The contractor was advised to undertake further excavations across the majority of the remediation area. Following further excavations to depths of 250-400mm, XRF testing indicated concentrations of both arsenic and lead below the 'residential 10% produce' SGV.

A total of 12 validation samples were collected from the walls and base of the excavated area and submitted to the laboratory for heavy metal analysis. The results showed concentrations below the 'residential 10% produce' SGV's in all sample locations. Arsenic concentrations ranged from 4-13mg/kg and lead concentrations ranged from 18.7-109mg/kg. A total of 459 XRF tests were completed over multiple visits in January 2023. The final XRF test results were generally consistent with the laboratory validation results.

A total of 844.12 tonnes of soils were excavated from the site and disposed of at Burwood Landfill under manifest number 660600.

The remediation actions have successfully remediated the contaminated soils at the site. Contaminant levels within the remediated area remain elevated above expected background values. During future

earthworks, any material requiring off-site disposal from within the excavated area is unlikely to qualify for disposal as cleanfill material.

2 Objectives of the Investigation

This report has been prepared in general accordance with the Ministry for the Environment's (MfE) "Contaminated Land Management Guidelines No 1: Reporting on Contaminated Sites in New Zealand, revised 2021" (CLMG). This report includes all requirements for a Site Validation Report.

The objectives of this investigation are to:

- Describe project information and any physical and environmental features of the site.
- Summarise any relevant resource consent information, specifically consent condition requirements.
- Summarise previous contaminated land investigations, specifically remedial strategy and objectives of the remediation.
- Describe remediation/management works undertaken including testing, sampling and inspections.
- Analyse all results and provide an assessment of the effectiveness of the remediation against the remediation objectives.
- Provide further recommendations such as long-term management controls if necessary.
- Describe and attach any documentary evidence, such as waste disposal documentation.

3 Scope of Work Undertaken

The scope of the work undertaken has included:

- Review of previous investigations undertaken at the site.
- Design and implement a Site Validation Investigation based on the remediation strategy and objectives and the remedial works undertaken.
- On site soil validation sampling and laboratory analysis.
- Analysis of results against applicable soil guidelines values (SGV).
- Preparation of report in accordance with MfE guidelines.

4 Site Identification

The subject of this investigation is located at 642 Ellesmere Road, Lincoln from herein referred to as 'the site'. The site is legally described as RS6016 and has an area of approximately 2.1ha, as shown in **Figure 1** below.

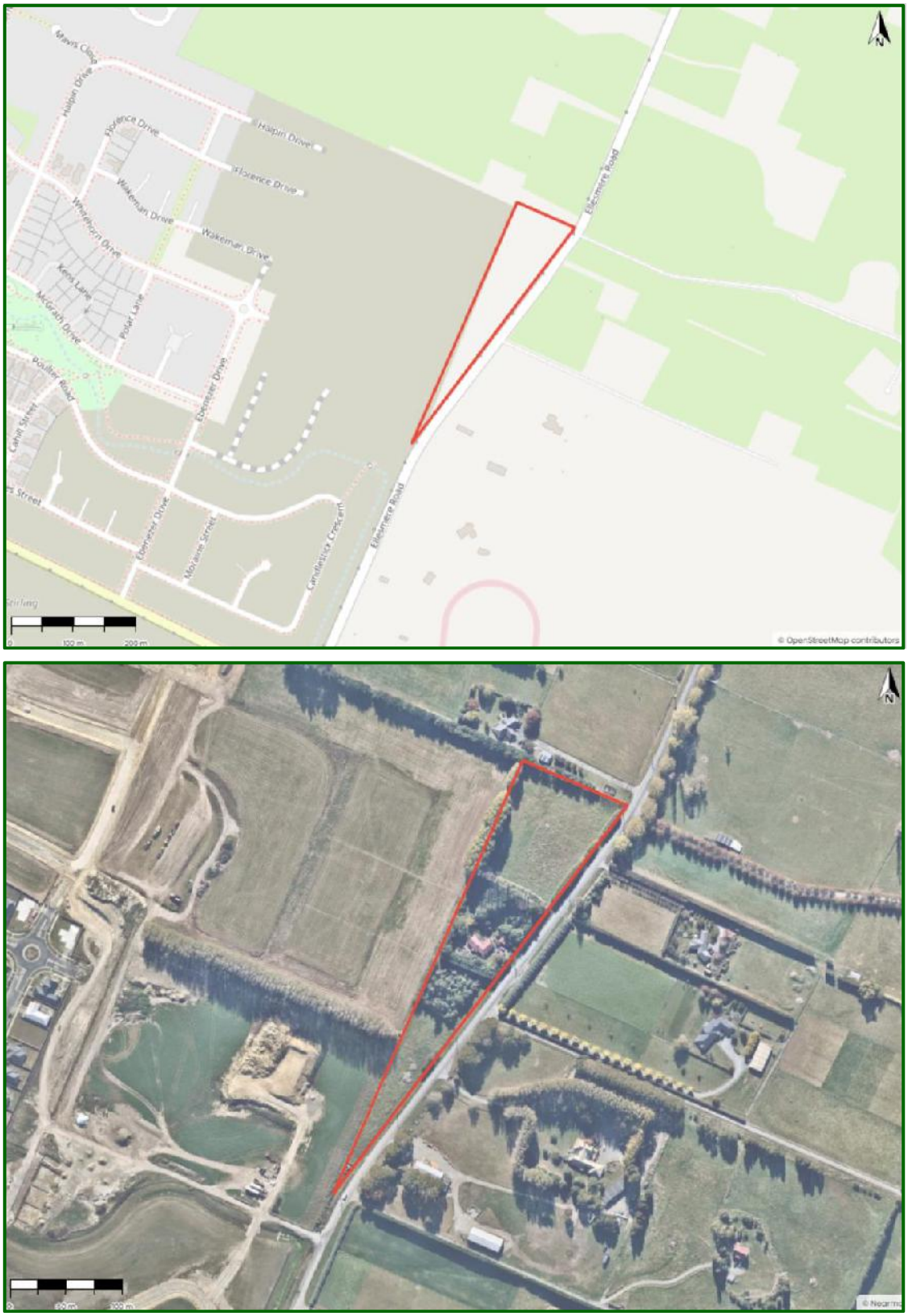

Figure 1 – Location Plan

5 Proposed Site Use

The proposal is to subdivide the site for residential use as part of additional stages in the Rosemerryn development. The site generally falls within proposed Stage 23 and 24. The size of the residential lots will range from approximately 500-1,200m^2.

The proposal will involve the subdivision of the site, change of use of the land, soil disturbance and disposal of soils off-site.

The proposed subdivision plan is included in **Appendix A**.

6 Site Description

6.1 Environmental Setting

Table 1 – Environmental Setting

Topography	The site is generally flat land.
Geology	The ECan GIS database describes the soils at the site as a combination of the Flaxton Deep Silt and Temuka Deep Silt over Clay. Wells in the area indicate that topsoils are underlain by layers of pug, clay and sandy gravels.
Soil Trace Elements	According to the ECan GIS database, natural concentrations of trace elements for the site are those of the 'Regional, GLEY' soil group.
Groundwater	The site lies over the unconfined and semiconfined gravel aquifer system. Groundwater levels recorded on nearby bore logs are 0.50–2.40m deep. The direction of groundwater flow is generally in a south-easterly direction.
Surface Water	The ECan GIS database shows drains east of Ellesmere Road running parallel to the site boundary along the northern half of the site at a distance of 25m.

6.2 Site Layout and Current Site Uses

The site is currently cleared of structures and vegetation as part of the proposed residential development. The site previously contained a dwelling, farm buildings and a significant area of vegetation.

6.3 Surrounding Land Uses

The surrounding land is a mixture of residential and rural residential.

6.4 Geotechnical Investigation

At the time of writing, no geotechnical investigation reports were made available to Momentum Environmental Ltd (MEL).

7 Summary of Previous Investigations

7.1 Preliminary Site Investigation

A Preliminary Site Investigation (PSI) was undertaken by MEL in February 2022. The investigation included a review of desktop information and a site inspection.

The review of historical aerial photographs indicated that prior to the 1940's a small number of buildings had been sited generally near the centre of the site within the current dwelling's curtilage area. These have been demolished over the years. Given the age of the buildings it was likely that this would pose a risk of contamination from lead-based paint and/or asbestos containing materials. The remainder of

the site had been used for pastoral cropping purposes. The normal uses of fertilisers and pastoral weed controls associated with these uses are unlikely to have caused soil contamination that would pose a risk to human health.

The report concluded that a risk had been identified and a Detailed Site Investigation (DSI) was recommended.

7.2 Detailed Site Investigation and Remediation Action Plan

Based on the potential risks identified in the PSI, a DSI was undertaken by MEL in March 2022. Soil sampling was completed on 14 March 2022 and showed arsenic and/or lead contamination exceeding the 'residential 10% produce' soil guideline values (SGV) at eight sample locations surrounding the existing dwelling. The elevated concentrations appeared to extend to a minimum depth of 250mm. The maximum lead concentration recorded at the site was 851mg/kg compared to the 'residential 10% produce' SGV of 210mg/kg. The maximum arsenic concentration recorded at the site was 42.6mg/kg compared to the 'residential 10% produce' SGV of 20mg/kg. No asbestos was detected in the tested samples collected from the site.

Based on the soil sample results and the intended residential use of the site, the conceptual site model identified a moderate risk to human health and the environment. As a result it was recommended that the site be remediated via excavation and disposal of contaminated material to an authorised disposal facility. A Remediation Action Plan (RAP) and Site Management Plan were developed to support the remediation of the site. Based on the sampling undertaken, the contaminated material was considered suitable for disposal at Burwood Landfill. Soil validation sampling was required to confirm successful remediation of the site. A Site Validation Report was required to be produced and provided to Selwyn District Council and ECan.

A copy of the Sample Location and Remediation Plan included in the DSI/RAP is attached in **Appendix B**.

8 Summary of Remedial Works and Site Validation Investigation

8.1 Soil Guideline Values

Human health soil contaminant standards for a group of 12 priority contaminants were derived under a set of five land-use scenarios and are legally binding under The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Health) Regulations 2011 (NES). These standards have been applied where applicable. The regulations describe these as Soil Contaminant Standards. For contaminants other than the 12 priority contaminants, the hierarchy as set out in the Ministry for the Environment Contaminated Land Management Guidelines No 2 has been followed. These are generally described as Soil Guideline Values. For simplicity, this report uses the terminology Soil Guideline Values (SGV) when referring to the appropriate soil contaminant standard or other derived value from the hierarchy. For soil, guideline values are predominantly risk based, in that they are typically derived using designated exposure scenarios that relate to different land uses. For each exposure scenario, selected pathways of exposure are used to derive guideline values. These pathways typically include soil ingestion, inhalation and dermal adsorption. The guideline values for the appropriate land use scenario relate to the most critical pathway.

The land-use scenario applicable for the site is 'residential 10% produce'. The 'commercial/industrial' land use scenario is used as a proxy for workers involved in disturbing soils.

The adopted trigger values used to determine need for assessment of ecological receptors (including stormwater disposal areas) also referred to as Ecological Guideline Values (EGVs) are the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (online) – Sediment GV-high (ANZWQ).

For comparison of site concentrations against expected background levels, heavy metal concentrations will be assessed against the expected background levels for soils as published in *Background Concentrations in Canterbury soils*, Tonkin and Taylor, July 2007.

8.2 Quality Assurance and Quality Control

Field quality assurance measures as described in Section 4.3.1 of the "Contaminated Land Management Guidelines No 5: Site Investigation and Analysis of Soils, revised 2021" (CLMG) are to be followed. These include using trained staff, choosing appropriate sample containers, accurate and individual labelling and recording of locations, completing appropriate laboratory chain of custody forms, chilling of samples as appropriate and timely delivery to laboratories. All non-disposable sampling equipment should be decontaminated between samples using Decon 90 and rinsed with tap water. All samples are to be submitted to IANZ accredited laboratories. Quality control to ensure freedom from sample cross-contamination is to be measured by the appropriate use of duplicate and rinsate blank samples.

8.3 Summary of Remedial Works

Remediation of the site commenced in early January 2023. MEL attended site following the initial scrap to undertake XRF testing of the excavated area. The remediation area had been scraped to an average depth of 100-200mm with some pockets of deeper excavations where the contractor had identified small areas of rubbish. A large stockpile of soil was present in the centre of the site as the contractor had not been able to organise off-site disposal. XRF testing was completed across the excavated remediation area, except for beneath the stockpile which would be tested at a later date following off-site disposal. The XRF test results indicated large areas required further excavations due to concentrations of both arsenic and lead exceeding the 'residential 10% produce' soil guideline value (SGV). The contractor was advised to undertake further excavations across the majority of the remediation area and complete removal of the stockpile.

XRF test locations marked with an 'X' indicate soils with contaminant concentrations above the 'residential 10% produce' SGVs. Those marked with an 'O' indicate soils with contaminant concentrations below the 'residential 10% produce' SGVs.

Photo 1 – Large stockpile requiring off-site disposal

Photo 2 – Excavated remediation area


Photo 3 & 4 – Excavated remediation area

MEL attended site once the additional excavations had been completed, to undertake XRF testing of the excavated area. The large stockpile of soil had been successfully removed from the site and disposed of at Burwood Landfill. The XRF test results showed small pockets of soils with elevated concentrations of arsenic and lead remaining. These areas were excavated while MEL was in attendance and XRF tested to confirm successful removal. Overall, the remediation area was excavated to a depth of between 250-400mm.


Photo 5 & 6 – Excavated remediation area


Photo 7 & 8 – Excavated remediation area

8.4 Summary of Site Validation Investigation

A total of 12 validation samples were collected from the walls and base of the remediation area and submitted to the laboratory for heavy metal analysis.

The Validation Sample Location Plan is attached in **Appendix C.**

9 Site Validation Investigation Results

9.1 Evaluation of Results

The validation sample results showed heavy metal concentrations below the 'residential 10% produce' SGVs in all sample locations. Arsenic concentrations ranged from 4-13mg/kg and lead concentrations ranged from 18.7-109mg/kg. A total of 459 XRF tests were completed over multiple visits in January 2023.. The final XRF test results are generally consistent with the laboratory validation results.

Heavy metal concentrations were above expected background values for one or more analytes at the majority of sample locations.

A total of 844.12 tonnes of soils were excavated from the site and disposed of at Burwood Landfill under manifest number 660600.

The Table of Laboratory Validation Results is attached in **Appendix D,** the Table of XRF Validation Results is attached in **Appendix E** and Laboratory Reports are attached in **Appendix F.** Disposal documentation is attached in **Appendix G.** Is it noted that the disposal documentation also includes information for a separate site. Only information under manifest number 660600 is relevant to this current site.

9.2 Results of Field & Laboratory Quality Assurance and Quality Control

No quality control issues were identified during sampling.

All laboratory tested samples were submitted to Hill Laboratories for analysis. Hill Laboratories holds IANZ accreditation. As part of holding accreditation the laboratory follows appropriate testing and quality control procedures. No quality control issues were identified.

10 Summary of Resource Consent and Conditions

It is understood by MEL that resource consent was obtained from Selwyn District Council prior to remediation of the site.

11 Conclusion

Remediation of lead and arsenic contaminated soils on the site commenced in early January 2023 with excavations to an average depth of 100-200mm across the remediation area. XRF testing was undertaken following the initial scrape and indicated large areas required further excavations due to concentrations of both arsenic and lead exceeding the 'residential 10% produce' SGV. The contractor was advised to undertake further excavations across the majority of the remediation area. Following further excavations to depths of 250-400mm, XRF testing indicated concentrations of both arsenic and lead generally below the 'residential 10% produce' SGV.

A total of 12 validation samples were collected from the walls and base of the excavated area and submitted to the laboratory for heavy metal analysis. The results showed concentrations below the

'residential 10% produce' SGV's in all sample locations. Arsenic concentrations ranged from 4-13mg/kg and lead concentrations ranged from 18.7-109mg/kg.

A total of 844.12 tonnes of soils were excavated from the site and disposed of at Burwood Landfill under manifest number 660600.

The remediation actions have successfully remediated the contaminated soils at the site. Contaminant levels within the remediated area remain elevated above expected background values. During future earthworks, any material requiring off-site disposal from within the excavated area is unlikely to qualify for disposal as cleanfill material.

12 Limitations

Momentum Environmental Limited has performed services for this project in accordance with current professional standards for environmental site assessments, and in terms of the client's financial and technical brief for the work. Any reliance on this report by other parties shall be at such party's own risk. It does not purport to completely describe all the site characteristics and properties. Where data is supplied by the client or any third party, it has been assumed that the information is correct, unless otherwise stated. Momentum Environmental Limited accepts no responsibility for errors or omissions in the information provided. Should further information become available regarding the conditions at the site, Momentum Environmental Limited reserves the right to review the report in the context of the additional information.

Opinions and judgments expressed in this report are based on an understanding and interpretation of regulatory standards at the time of writing and should not be construed as legal opinions. As regulatory standards are constantly changing, conclusions and recommendations considered to be acceptable at the time of writing, may in the future become subject to different regulatory standards which cause them to become unacceptable. This may require further assessment and/or remediation of the site to be suitable for the existing or proposed land use activities. There is no investigation that is thorough enough to preclude the presence of materials at the site that presently or in the future may be considered hazardous.

Appendix A – Subdivision Plan

AMENDMENTS :		
AMENDMENT	DATE	DESCRIPTION
R8	4/03/2020	STAGE 15 BOUNDARIES AMENDED
R9	12/06/2020	STAGE 14 AMENDED TO COMPLETE, LOTS 2000-2007 ADDED TO SCHEDULES
R10	25/09/2020	STAGES 15, 16 & 17 BOUNDARIES UPDATED TO TSS, ROAD NAME ADDED
R11	3/12/2020	STAGE 15 UPDATED TO UNDER CONSTRUCTION
R12	02/03/2021	STAGES 15, 18, 19 & 20 BOUNDARIES UPDATED TO TSS
R13	21/04/2021	LOTS 788 & 7013 AMENDED
R14	1/06/2021	COMPLETED STAGES UPDATED

NOTES :

1) Areas and dimensions are approximate only and are subject to final survey and deposit of plans.

2) Service easements to be created as required.

3) This plan has been prepared for subdivision consent purposes only. No liability is accepted if the plan is used for any other purposes.

NORTH

FLEMINGTON

Lot 2000 D.P.486825

Lot 2 D.P.26021

Lot 1 D.P.83562

RS 6016 (BM.73)

FUTU DEVELO

Stage	Residential Lots	Drainage Reserves	Recreation Reserves
17	54	-	-
20	35	8469m²	-
21	49	1397m²	-
22	50	-	0.2059
23	37	-	-
24	37	-	-
Completed Stages	648	3.1055ha	4.0037ha
Proposed Stages	262	0.9866ha	0.2059ha
TOTALS	910	4.0921ha	4.2096ha

COMPLETED AS AT 30JUNE 2021

- COMPLETED
- UNDER CONSTRUCTION
- EARTHWORKS COMPLETED NO CIVILS STARTED
- CONSENTED BALANCE AREA: 14.0756ha
- DRAINAGE RESERVES
- RECREATION RESERVES
- COMMERCIAL SITES (6230m²)

Rosemerryn

DAVIE LOVELL-SMITH
PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140. New Zealand
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE: **Rosemerryn**

SHEET TITLE: **Proposed Subdivision Stages 15 - 24**

DRAWING STATUS: **For Consent**

SCALE : 1:2500@A1 1:5000@A3 DATE : January 2022

CAD FILE : J:\19458\Subcon\19458_Stages 15-24_R17.dwg

DRAWING No : **19458** SHEET No: 1 OF 1

REVISION : **R14**

Appendix B – DSI Sample Location and Remediation Plan

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LEGEND

- SS1 — Soil testing location
- SS1 — Soil sample location exceeds residential SGV for lead
- SS1 — Soil sample exceed residential SGV for arsenic and lead
- Proposed remediation area based on sampling to date – may be refined by further delineation when site is cleared

PLAN MUST BE PRINTED IN COLOUR

Graphic scale is approximate only

0 6 12 18 24m

Date: 29 March 2022 **Drawing No:** 646/1

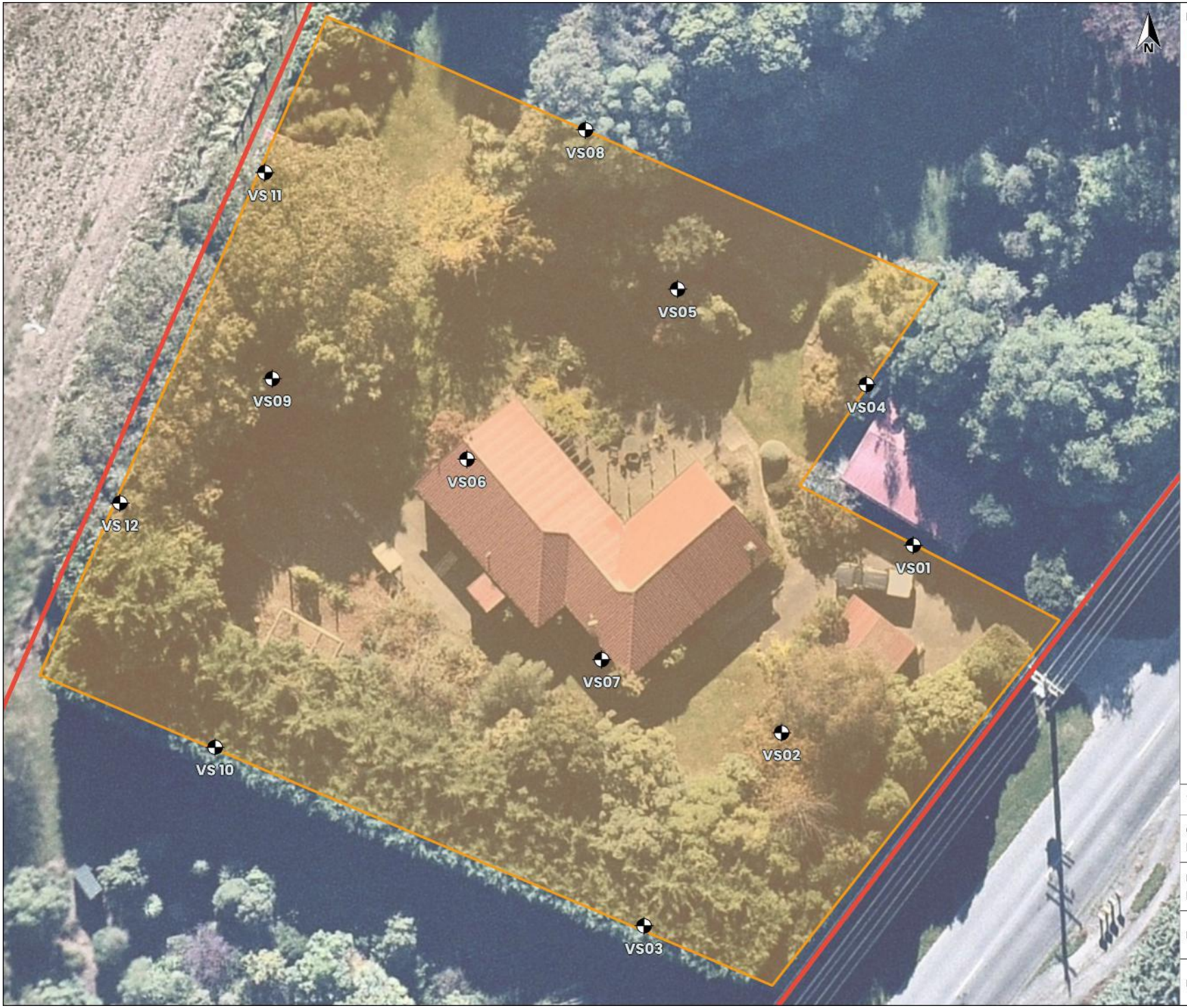
642 Ellesmere Road, Lincoln

Sample Location and Remediation Plan

Notes:

1. This plan has been prepared for soil contamination risk assessment purposes only. No liability is accepted if the plan is used for any other purposes.
2. Any measurements taken from this plan which are not dimensioned on the electronic copy are at the risk of the user.
3. Soil sample locations are approximate only

Appendix C – Validation Sample Location Plan



Legend

- Site Boundary
- Validation sample location
- Approximate extent of remediated area excavated to depths of 250-400mm

0 5 m 10 m

© Nearmap

MOMENTUM ENVIRONMENTAL

Produced by **Datanest.earth**

Title: Validation Sample Location Plan		
Client: Fulton Hogan Land Development Ltd		Appendix No.: 2 Size: A4
Project: 642 Ellesmere Road	Drawn: HG	
Date: 22-02-2023	Checked: NP	
Proj No.: 646	Scale: 1:347	Version: Final

Appendix D – Table of Laboratory Validation Results

Analyte	Units	VS01	VS02	VS03	VS04	VS05	VS06	VS07	VS08	VS09	VS10	VS11	VS12	Human Health, Residential	:kground Criteria (Canterbury Regional - G	ANZECC & ARMCANZ (2000) GV-High
Sampled Date		25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023	25-01-2023			
Lab Title		3159676_1	3159676_2	3159676_3	3159676_4	3159676_5	3159676_6	3159676_7	3159676_8	3159676_9	3159676_10	3159676_11	3159676_12			
Arsenic	mg/kg	4	12	11	6	4	5	10	9	5	13	5	9	**20**[2]	11	70
Copper	mg/kg	2	8	9	9	10	4	3	5	7	7	4	22	**10,000**[2]	16.425	270
Lead	mg/kg	20	42	28	28	37	18.7	21	21	30	32	23	109	**210**[2]	19.3	220
Zinc	mg/kg	62	84	78	72	74	45	66	54	85	82	68	179	**7,400**[1]	77.1	410
Cadmium	mg/kg	< 0.1	< 0.1	0.12	0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.23	**3**[2]	0.28	10
Chromium	mg/kg	13	11	12	11	12	15	14	17	17	13	16	15	**460**[2]	19.3	370
Nickel	mg/kg	6	6	8	9	7	9	7	10	11	7	8	10	**400**[1]	16.1	52

Scenarios:

Shaded yellow, bold	indicates concentrations exceed Human Health, Residential
Underline	indicates concentrations exceed Background Criteria (Canterbury Regional - Gley)
Shaded green	indicates concentrations exceed ANZECC & ARMCANZ (2000) GV-High

Criteria adopted from the following guidelines:

[1]NEPM 2013 HILS. Criteria for Human Health, Residential land use

[2]Methodology for Deriving Soil Guideline Values Protective of Human Health (NES, 2011). Criteria for Human Health, Residential land use

Notes:

This table does not represent the full analytical results, please refer to the laboratory results for full details.

Assumes soil pH of 5 for Cadmium.

Appendix E – Table of XRF Validation Results

Table of XRF Results - 642 Ellesmere Road, Lincoln

Units: ppm

Samples in **bold** were lab tested

XRF Reading #	Time	Type/Comment	Test Duration	Total Recoverable Arsenic		Total Recoverable Lead	
				Result	Error	Result	Error
181	3/14/2022 9:10	**Calibration Sample**	30.35	382.39	25.31	466.98	29.01
182	3/14/2022 9:11	**Blank**	48.12	<LOD	3.91	<LOD	5.73
183	3/14/2022 9:13	**SS1.1**	30.08	<LOD	10.08	68.86	9.04
184	3/14/2022 9:13	**SS1.1**	30.07	<LOD	10.11	64.32	9.19
185	3/14/2022 9:14	**SS1.1**	30.07	<LOD	10.42	74.23	9.79
189	3/14/2022 9:23	**SS1.2**	30.07	<LOD	14.49	156.65	13.23
190	3/14/2022 9:24	**SS1.2**	30.07	<LOD	14.07	150.05	12.95
191	3/14/2022 9:24	**SS1.2**	30.08	<LOD	18.58	149.28	17.16
186	3/14/2022 9:17	**SS2.1**	30.07	**24.05**	5.97	84.84	7.58
187	3/14/2022 9:19	**SS2.1**	30.07	**26.09**	8.76	126.13	11.31
188	3/14/2022 9:19	**SS2.1**	30.26	**21.81**	7.55	73.86	9.6
192	3/14/2022 9:34	**SS2.2**	30.07	**27.76**	6.66	74.14	8.26
193	3/14/2022 9:35	**SS2.2**	30.07	**26.02**	7.65	130.04	9.9
194	3/14/2022 9:35	**SS2.2**	30.08	**21.16**	5.51	66.11	6.97
195	3/14/2022 9:37	SS3.1	30.08	<LOD	12.69	102.25	11.55
196	3/14/2022 9:38	SS3.1	30.07	<LOD	11.47	101.96	10.66
197	3/14/2022 9:38	SS3.1	30.07	<LOD	12.18	103.72	10.96
198	3/14/2022 9:43	SS3.2	52.11	<LOD	12.28	146.8	11.14
199	3/14/2022 9:44	SS3.2	30.07	<LOD	14.9	179.91	13.66
200	3/14/2022 9:50	SS4.1	30.08	11.61	7.61	92.98	10.19
201	3/14/2022 9:51	SS4.1	31.37	<LOD	11.86	97.56	10.63
202	3/14/2022 9:51	SS4.1	30.08	<LOD	11.8	131.44	11.06
209	3/14/2022 10:05	**SS4.2**	30.16	<LOD	25.69	**541.77**	23.49
210	3/14/2022 10:05	**SS4.2**	30.16	<LOD	24.07	**472.37**	22.08
211	3/14/2022 10:06	**SS4.2**	30.56	<LOD	24.83	**411.84**	22.62
215	3/14/2022 10:30	SS4.3	36.54	<LOD	6.84	17.1	6.34
216	3/14/2022 10:31	SS4.3	30.08	<LOD	8.14	15.16	7.81
217	3/14/2022 10:31	SS4.3	30.16	<LOD	9.41	16.37	8.79
203	3/14/2022 9:53	SS5.1	30.07	<LOD	8.94	52.03	7.99
204	3/14/2022 9:54	SS5.1	30.08	<LOD	8.69	53.34	8.11
205	3/14/2022 9:54	SS5.1	30.07	<LOD	7.74	46.82	7.01
206	3/14/2022 10:01	SS5.2	30.16	<LOD	13.15	64.15	11.64
207	3/14/2022 10:02	SS5.2	30.07	<LOD	12.97	55.13	11.34
208	3/14/2022 10:02	SS5.2	30.08	<LOD	11.54	38.73	10.25
212	3/14/2022 10:20	SS6.1	30.08	<LOD	14.9	208.32	13.62
213	3/14/2022 10:20	SS6.1	30.07	<LOD	16.51	**229.93**	14.96
214	3/14/2022 10:21	SS6.1	30.08	<LOD	16.71	**218.06**	15.15
218	3/14/2022 10:34	SS6.2	30.08	<LOD	15	166.67	13.73
219	3/14/2022 10:35	SS6.2	30.07	<LOD	19.25	**278.66**	17.42
220	3/14/2022 10:36	SS6.2	30.08	<LOD	19.77	**253.74**	18.01

221	3/14/2022 10:51	**SS7.1**	30.07	<LOD	11.79	189.6	10.82
222	3/14/2022 10:52	**SS7.1**	30.08	<LOD	13.01	**221.47**	11.88
223	3/14/2022 10:52	**SS7.1**	30.07	<LOD	15.4	**257.05**	14
224	3/14/2022 10:54	**SS8.1**	30.08	<LOD	12.29	145.91	11.33
225	3/14/2022 10:55	**SS8.1**	30.08	<LOD	11.65	118.32	10.69
226	3/14/2022 10:55	**SS8.1**	30.08	<LOD	12.49	147.28	11.46
227	3/14/2022 11:03	SS8.3	30.07	<LOD	16.59	194.09	15.09
228	3/14/2022 11:04	SS8.3	30.07	17.64	9.82	196.84	13.18
229	3/14/2022 11:04	SS8.3	30.07	<LOD	14.81	160.35	13.82
230	3/14/2022 11:07	**SS9.1**	31.37	<LOD	14.3	161.54	12.92
231	3/14/2022 11:08	**SS9.1**	30.57	<LOD	14.71	166.79	13.63
232	3/14/2022 11:08	**SS9.1**	30.08	<LOD	15.66	194.03	14.15
233	3/14/2022 11:14	**SS9.2**	30.08	<LOD	12.8	121.77	11.52
234	3/14/2022 11:15	**SS9.2**	30.08	<LOD	12.99	125.41	11.71
235	3/14/2022 11:16	**SS9.2**	30.08	<LOD	13.98	163.86	12.9
236	3/14/2022 11:22	Blank	30.08	<LOD	4.98	<LOD	7.35
240	3/14/2022 11:32	SS10.1	30.08	<LOD	12.62	175.87	11.76
241	3/14/2022 11:32	SS10.1	30.08	<LOD	14.42	204.32	13.65
242	3/14/2022 11:33	SS10.1	30.08	<LOD	12.99	179.87	11.84
246	3/14/2022 11:38	**SS10.2**	30.08	<LOD	14.57	191.81	13.47
247	3/14/2022 11:39	**SS10.2**	30.08	<LOD	14.24	199.03	13.05
248	3/14/2022 11:39	**SS10.2**	30.07	<LOD	14.31	191.66	13.08
237	3/14/2022 11:27	SS11.1	30.06	<LOD	9.71	61	8.72
238	3/14/2022 11:28	SS11.1	30.08	<LOD	8.43	50.82	7.73
239	3/14/2022 11:28	SS11.1	30.07	<LOD	10.41	75.47	9.43
243	3/14/2022 11:34	SS11.2	30.16	<LOD	10.28	55.12	9.21
244	3/14/2022 11:35	SS11.2	30.08	<LOD	10.38	62.84	9.35
245	3/14/2022 11:35	SS11.2	30.16	<LOD	11.47	76.18	10.5
252	3/14/2022 11:58	**SS12.1**	31.21	**25.76**	14.03	**409.14**	18.92
253	3/14/2022 11:58	**SS12.1**	30.08	<LOD	16.24	**247.32**	15.03
254	3/14/2022 11:59	**SS12.1**	30.07	<LOD	15.08	**250.18**	13.8
249	3/14/2022 11:55	SS13.1	30.08	<LOD	7.62	19.83	6.96
250	3/14/2022 11:56	SS13.1	30.08	<LOD	7.69	30.4	7.18
251	3/14/2022 11:56	SS13.1	30.08	<LOD	7.34	19.81	6.83
255	3/14/2022 12:03	SS13.2	30.08	<LOD	7.77	19.22	7.19
256	3/14/2022 12:04	SS13.2	30.08	<LOD	8.3	19.07	7.51
257	3/14/2022 12:04	SS13.2	30.08	<LOD	9.2	30.08	8.25
258	3/14/2022 12:09	**SS14.1**	30.92	15.54	8.78	117.63	11.67
259	3/14/2022 12:10	**SS14.1**	30.06	<LOD	11.72	114.88	10.56
260	3/14/2022 12:11	**SS14.1**	30.04	<LOD	12.58	113.6	11.29
261	3/14/2022 12:14	SS14.2	30.08	<LOD	12.8	63.07	11.41
262	3/14/2022 12:15	SS14.2	39.08	<LOD	11.67	46.3	10.28
263	3/14/2022 12:16	SS14.2	30.08	<LOD	13.05	57.45	11.67
264	3/14/2022 12:24	SS15.1	30.08	<LOD	5.32	13.21	5.09
265	3/14/2022 12:25	SS15.1	30.08	<LOD	5.22	<LOD	7.19
266	3/14/2022 12:25	SS15.1	30.07	<LOD	5.21	9.92	4.95
267	3/14/2022 12:30	SS15.2	30.07	<LOD	7.37	23.43	6.93
268	3/14/2022 12:30	SS15.2	30.08	<LOD	6.18	19.14	5.63
269	3/14/2022 12:31	SS15.2	30.08	<LOD	7.57	23.38	6.97

270	3/14/2022 12:36	**SS16.1**	30.08	13.4	6.25	47.48	8.15
271	3/14/2022 12:37	**SS16.1**	30.08	10.2	5.89	49.93	7.84
272	3/14/2022 12:37	**SS16.1**	37.74	12.06	5.25	40.68	6.86
273	3/14/2022 12:40	SS16.2	30.08	11.2	5.37	30.85	7.02
274	3/14/2022 12:41	SS16.2	30.08	<LOD	11.57	27.66	10.01
275	3/14/2022 12:42	SS16.2	30.08	<LOD	7.95	26.09	7.5
276	3/14/2022 12:45	SS17.1	30.08	<LOD	4.33	8.25	4.29
277	3/14/2022 12:45	SS17.1	30.07	<LOD	4.41	10.35	4.24
278	3/14/2022 12:46	SS17.1	30.07	<LOD	4.31	<LOD	6.01
279	3/14/2022 12:48	SS17.2	30.07	<LOD	6.5	24.25	6.03
280	3/14/2022 12:49	SS17.2	30.08	<LOD	6.77	25.31	6.38
281	3/14/2022 12:49	SS17.2	30.08	<LOD	7.11	25.67	6.5
282	3/14/2022 12:55	Blank	30.08	<LOD	4.93	<LOD	7.14
Soil Guideline Values	**Residential 10% Produce**			20		210	
	Outdoor Worker			70		3,300	
	Reference			NES		NES	
XRF likely to be below SGV				*NA*		*128.6*	

Result exceeds residential SGV
Result is likely to exceed residential SGV based on regression analysis

Appendix F – Laboratory Reports

Hill Laboratories
TRIED, TESTED AND TRUSTED

R J Hill Laboratories Limited
28 Duke Street Frankton 3204
Private Bag 3205
Hamilton 3240 New Zealand

T 0508 HILL LAB (44 555 22)
T +64 7 858 2000
E mail@hill-labs.co.nz
W www.hill-laboratories.com

Certificate of Analysis

Client:	Momentum Environmental Limited	**Lab No:**	3159676 SPv1
Contact:	Hollie Griffith	**Date Received:**	25-Jan-2023
	C/- Momentum Environmental Limited	**Date Reported:**	31-Jan-2023
	19 Robertsons Road	**Quote No:**	72157
	Kirwee 7671	**Order No:**	
		Client Reference:	
		Submitted By:	Hollie Griffith

Sample Type: Soil

Sample Name:		VS1 25-Jan-2023 11:15 am	VS2 25-Jan-2023 11:17 am	VS3 25-Jan-2023 11:20 am	VS4 25-Jan-2023 11:24 am	VS5 25-Jan-2023 11:27 am
Lab Number:		3159676.1	3159676.2	3159676.3	3159676.4	3159676.5
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	4	12	11	6	4
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	0.12	0.13	< 0.10
Total Recoverable Chromium	mg/kg dry wt	13	11	12	11	12
Total Recoverable Copper	mg/kg dry wt	2	8	9	9	10
Total Recoverable Lead	mg/kg dry wt	20	42	28	28	37
Total Recoverable Nickel	mg/kg dry wt	6	6	8	9	7
Total Recoverable Zinc	mg/kg dry wt	62	84	78	72	74

Sample Name:		VS6 25-Jan-2023 11:30 am	VS7 25-Jan-2023 11:32 am	VS8 25-Jan-2023 11:34 am	VS9 25-Jan-2023 11:36 am	VS10 25-Jan-2023 11:39 am
Lab Number:		3159676.6	3159676.7	3159676.8	3159676.9	3159676.10
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	5	10	9	5	13
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Recoverable Chromium	mg/kg dry wt	15	14	17	17	13
Total Recoverable Copper	mg/kg dry wt	4	3	5	7	7
Total Recoverable Lead	mg/kg dry wt	18.7	21	21	30	32
Total Recoverable Nickel	mg/kg dry wt	9	7	10	11	7
Total Recoverable Zinc	mg/kg dry wt	45	66	54	85	82

Sample Name:		VS11 25-Jan-2023 11:42 am	VS12 25-Jan-2023 11:45 am
Lab Number:		3159676.11	3159676.12
Heavy Metals, Screen Level			
Total Recoverable Arsenic	mg/kg dry wt	5	9
Total Recoverable Cadmium	mg/kg dry wt	< 0.10	0.23
Total Recoverable Chromium	mg/kg dry wt	16	15
Total Recoverable Copper	mg/kg dry wt	4	22
Total Recoverable Lead	mg/kg dry wt	23	109
Total Recoverable Nickel	mg/kg dry wt	8	10
Total Recoverable Zinc	mg/kg dry wt	68	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 Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No

Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-12
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 26-Jan-2023 and 31-Jan-2023. For completion dates of individual analyses please contact the laboratory.

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

Ara Heron BSc (Tech)
Client Services Manager - Environmental

Appendix G - Disposal Documentation

Craig Hayworth

BURWOOD RESOURCE RECOVERY PARK

This is a Tax Invoice

GST Number : 106-854-270

Docket Number : 470579
Date In : 26/01/2023 08:31:28 ar
Transporter : Maugers
Vehicle : NUR687
:
Product : CCC Special Soil Class

First Weight : 11,520 Kg
Second Weight : 23,700 Kg
Net Weight : 12,180 Kg

Job Number: CCC
Job Address: Misc
Billing Customer: CCC Landfill Customer
Manifest Number: 660600

Thankyou.
For all account enquiries,
please phone 03 941 8999

BURWOOD RESOURCE RECOVERY PARK

Ellesmere

This is a Tax Invoice

GST Number : 106-854-270

Docket Number : 470580
Date In : 26/01/2023 08:31:45 ar
Transporter : Maugers
Vehicle : NUR687T
:
Product : CCC Special Soil Class

First Weight : 6,900 Kg
Second Weight : 25,500 Kg
Net Weight : 18,600 Kg

30.78.

Job Number: CCC
Job Address: Misc
Billing Customer: CCC Landfill Customer
Manifest Number: 660600

Thankyou.
For all account enquiries,
please phone 03 941 8999

Christchurch City Council Transactions between 1/01/2023 and 18/01/2023

Burwood Landfill

Date	Time:	Tran Docket:	Manifest No.	Vehicle ID	Transporter	Product	Rate/tonne	Net Weight	Amount incl GST
3154157	**Maugers Contracting Limited**								
18/01/2023	8:18	470420	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	13.66	$1,335.27
18/01/2023	8:22	470421	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.66	$1,139.77
18/01/2023	8:23	470422	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	16.02	$1,565.96
18/01/2023	8:25	470423	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	15.66	$1,530.77
18/01/2023	10:38	470426	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	20.52	$2,005.83
18/01/2023	10:40	470427	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	14.32	$1,399.78
18/01/2023	10:52	470428	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.76	$1,149.54
18/01/2023	10:53	470429	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	17.86	$1,745.82
18/01/2023	13:30	470430	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.56	$1,129.99
18/01/2023	13:31	470431	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	14.90	$1,456.48
18/01/2023	13:34	470432	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	13.48	$1,317.67
18/01/2023	13:37	470433	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	18.10	$1,769.28
18/01/2023	15:18	470437	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	14.00	$1,368.50
18/01/2023	15:38	470438	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	12.74	$1,245.34
18/01/2023	15:39	470439	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	15.90	$1,554.23
							Total Incl GST:	**222.14**	**$21,714.23**

Christchurch City Council Transactions between 19/01/2023 and 19/01/2023

Burwood Landfill

Date	Time:	Tran Docket:	Manifest No.	Vehicle ID	Transporter	Product	Rate/tonne	Net Weight	Amount incl GST
3154157	**Maugers Contracting Limited**								
19/01/2023	7:31	470441	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	12.80	$1,251.20
19/01/2023	7:39	470442	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.56	$1,129.99
19/01/2023	7:39	470443	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	15.88	$1,552.27
19/01/2023	9:37	470452	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.48	$1,122.17
19/01/2023	9:38	470453	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	16.78	$1,640.25
19/01/2023	11:11	470460	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	12.94	$1,264.89
19/01/2023	11:36	470463	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.54	$1,128.04
19/01/2023	11:37	470464	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	15.70	$1,534.68
19/01/2023	11:54	470466	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	18.24	$1,782.96
19/01/2023	13:37	470474	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.86	$1,159.32
19/01/2023	13:37	470475	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	16.00	$1,564.00
19/01/2023	13:44	470476	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	12.62	$1,233.61
19/01/2023	14:25	470477	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	20.38	$1,992.15
19/01/2023	15:51	470483	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	12.46	$1,217.97
19/01/2023	16:01	470484	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.46	$1,120.22
19/01/2023	16:02	470485	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	15.16	$1,481.89
							Total Incl GST:	**226.86**	**$22,175.61**

Christchurch City Council Transactions between 20/01/2023 and 25/01/2023

Burwood Landfill

Date	Time:	Tran Docket:	Manifest No.	Vehicle ID	Transporter	Product	Rate/tonne	Net Weight	Amount incl GST
3154157	**Maugers Contracting Limited**								
20/01/2023	7:26	470488	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	9.64	$942.31
20/01/2023	7:27	470489	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	13.48	$1,317.67
20/01/2023	9:30	470499	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	9.96	$973.59
20/01/2023	9:30	470500	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	13.60	$1,329.40
20/01/2023	11:38	470505	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	12.42	$1,214.06
20/01/2023	11:39	470506	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	17.28	$1,689.12
20/01/2023	12:06	470508	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	12.66	$1,237.52
20/01/2023	13:40	470511	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	10.48	$1,024.42
20/01/2023	13:40	470512	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	15.78	$1,542.50
20/01/2023	14:34	470515	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	12.90	$1,260.98
20/01/2023	14:52	470517	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	19.76	$1,931.54
20/01/2023	15:46	470518	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	13.64	$1,333.31
20/01/2023	15:46	470519	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	18.26	$1,784.92
23/01/2023	7:29	470521	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	11.62	$1,135.86
23/01/2023	7:29	470522	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	17.64	$1,724.31
23/01/2023	8:16	470524	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	19.10	$1,867.03
23/01/2023	11:09	470531	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	18.40	$1,798.60
23/01/2023	11:38	470534	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	12.32	$1,204.28
23/01/2023	13:49	470535	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	13.48	$1,317.67
23/01/2023	14:35	470537	660600	PCM568	Maugers	CCC Special Soil Cla	$85.00	19.34	$1,890.49
24/01/2023	8:09	470542	660603	PCM568	Maugers	CCC Special Soil Cla	$85.00	15.14	$1,479.94
24/01/2023	9:23	470543	660603	PCM568	Maugers	CCC Special Soil Cla	$85.00	19.18	$1,874.85
24/01/2023	10:53	470545	660603	PCM568	Maugers	CCC Special Soil Cla	$85.00	21.34	$2,085.99
24/01/2023	11:08	470546	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	12.10	$1,182.78
24/01/2023	11:09	470547	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	16.34	$1,597.24
24/01/2023	11:31	470548	660603	HER887	Maugers	CCC Special Soil Cla	$85.00	17.40	$1,700.85
24/01/2023	12:59	470549	660603	PCM568	Maugers	CCC Special Soil Cla	$85.00	18.78	$1,835.75
24/01/2023	13:25	470551	660600	HER887	Maugers	CCC Special Soil Cla	$85.00	11.78	$1,151.50
24/01/2023	14:12	470552	660603	PCM568	Maugers	CCC Special Soil Cla	$85.00	18.62	$1,820.11
24/01/2023	14:31	470553	660603	NUR687	Maugers	CCC Special Soil Cla	$85.00	14.40	$1,407.60

Date	Time:	Tran Docket:	Manifest No.	Vehicle ID	Transporter	Product	Rate/tonne	Net Weight	Amount incl GST
24/01/2023	14:31	470554	660603	NUR687T	Maugers	CCC Special Soil Cla	$85.00	19.64	$1,919.81
24/01/2023	14:40	470555	660603	HER887	Maugers	CCC Special Soil Cla	$85.00	16.30	$1,593.33
24/01/2023	15:44	470557	660603	PCM568	Maugers	CCC Special Soil Cla	$85.00	21.32	$2,084.03
24/01/2023	15:47	470558	660603	NUR687	Maugers	CCC Special Soil Cla	$85.00	13.48	$1,317.67
24/01/2023	15:48	470559	660603	NUR687T	Maugers	CCC Special Soil Cla	$85.00	11.96	$1,169.09
24/01/2023	15:49	470560	660603	HER887	Maugers	CCC Special Soil Cla	$85.00	12.64	$1,235.56
25/01/2023	10:27	470562	660603	PCM568	Maugers	CCC Special Soil Cla	$85.00	24.68	$2,412.47
25/01/2023	10:29	470564	660600	NUR687	Maugers	CCC Special Soil Cla	$85.00	13.36	$1,305.94
25/01/2023	10:29	470565	660600	NUR687T	Maugers	CCC Special Soil Cla	$85.00	19.00	$1,857.25
25/01/2023	12:23	470569	660603	NUR687	Maugers	CCC Special Soil Cla	$85.00	13.50	$1,319.63
25/01/2023	12:24	470570	660603	NUR687T	Maugers	CCC Special Soil Cla	$85.00	17.68	$1,728.22
25/01/2023	14:43	470572	660603	NUR687	Maugers	CCC Special Soil Cla	$85.00	12.94	$1,264.89
25/01/2023	14:44	470573	660603	NUR687T	Maugers	CCC Special Soil Cla	$85.00	17.88	$1,747.77
							Total Incl GST:	**671.22**	**$65,611.85**