Received: 22 October 2025

Annexure G

Contaminated Land letter

Prepared by Eliot Sinclair

Nelson Office
4 Findlay Place
Stoke
Nelson 7011
+64 3 928 0213
eliotsinclair.co.nz

16 October 2025

Nelson City Council
Environmental Management Team

Our reference: 600103

Attention: To whoever it may concern

Dear Sir/Madam

115 – 121 Milton Street – HAIL Status – Proposed Site Redevelopment

The site located at 115-121 Milton Street is proposed for redevelopment which will include the demolition of all buildings/structures present on the site and the reconstruction of high-density residential units.

The site under consideration used to be used for horticultural activities including several greenhouses since the 1940's until the 1970's when the site was redeveloped as a motel with only a small portion still being used for horticultural activities until the 2020's.

The site is registered as a HAIL site referenced as HAIL10698 in Nelson City Council's HAIL register (https://www.nelson.govt.nz/6environment/nelson-hail-sites#toc-link-7).

A Preliminary Site Investigation (PSI) including some indicative soil samplings was carried out by Envirolink Ltd in 2021 to support resource consent RM225012 which concerns Soil disturbance, subdivision and change of use. The PSI is attached in Appendix A.

Recommendations of the PSI were included in RM225012 as conditions, including the following:

- Proceed with additional soil samplings upon removal (demolition) of the buildings/structures present on site to better delineate the area requiring remediation and the areas of soil suitable for reuse which corresponds to carrying out a complementary Detailed Site Investigation (DSI);
- Prepare a Remediation Action Plan (RAP) addressing soil contamination; and
- Proceed with the validation of the site by preparing a Site Validation Report (SVR) to confirm that the objectives of the RAP have been met.

In April 2025, Eliot Sinclair proceeded with a site visit to establish the current site conditions and eventually complement the PSI findings. The site visit report included the following:

- Buildings/structures present on site highly likely contain asbestos and lead-based paint which may have or may potentially contaminate the soil due to the demolition.
- The redevelopment of the site may expose old road sealing potentially containing coal tar due to its age.

As a conclusion, it is our professional opinion that the RC conditions #3 through to #10 as outlined in RM225012 are still relevant to the new proposed redevelopment plan as the

additional investigations carried out since the initial PSI have just confirmed the most appropriate way to address soil contamination and remediate the site. This would include:

- A complementary DSI is carried out upon demolition of the buildings/structures
- Based on the outcome of the DSI, a RAP must be prepared and implemented by a SQEP
- Upon completion of the remediation actions, the soil must be validated by the SQEP

I trust this letter addresses all concerns regarding the relevance of existing consent conditions in regard to the proposed ways to handle and remediate soil contamination.

Yours sincerely



Philippe Dumont

Environmental Scientist

BAgSc(Hons) MSc CEnvP SQEP

philippe.dumont@eliotsinclair.co.nz

Appendix A. Preliminary Site Investigation (Envirolink, 2021)

Preliminary Site Investigation

Milton Chalet Development
Nelson

Milton 2014 Limited

June 2021

Envirolink Ltd
20 Stafford Drive
Mapua
Ph: 027 277 3566
martyn@envirolink.co.nz

Quality Assurance

Title:	Preliminary Site Investigation Milton Street Development, Nelson
Client:	Milton 2014 Limited
Reference:	210625.MiltonChaletPSI_v1
Version:	1
Date:	June 2021
Prepared By:	David Duncan MSc Environmental Science CSci C.WEM
Reviewed By:	Martyn O'Cain MSc (hons) Environmental Science PG Dip Business Management CEnvP (Site Contamination)

This document has been prepared for the benefit of Milton 2014 Limited and Nelson City Council. No liability is accepted by this company or any employee or sub-consultant of this company with respect to its use by any other person.

Should anyone wish to discuss the content of this report with Envirolink Ltd, they are welcome to contact us on 027 277 3566.

TABLE OF CONTENTS

Executive Summary 1

1.0 Introduction 2

2.0 Objectives and Scope of Work 3

3.0 Site Conditions and Surrounding Environment 4

3.1 Site Identification and Setting 4

3.2 Site Description 5

3.3 Geological and Hydrological Setting 6

4.0 Site History and Record Search 7

4.1 Historical Aerial Photographs 7

4.2 Property File Review 8

4.3 Summary of Potentially Contaminative Land Uses 8

5.0 Preliminary Soil Sampling 9

5.1 Sample Collection 9

5.2 Trigger Values 11

5.3 Analytical Results 11

6.0 Conceptual Site Model 13

7.0 Planning Considerations 14

8.0 Conclusions 15

9.0 Limitations 16

Appendix A: Drawings

Appendix B: Site Photographs

Appendix C: Historical Aerial Photography

Appendix D: Selected Property File Documents

Appendix E: Laboratory Certificate of Analysis

EXECUTIVE SUMMARY

Envirolink Limited (Envirolink) has been engaged by Milton 2014 Limited (the client) to produce a Preliminary Site Investigation (PSI) to support a resource consent application. It is understood that the client intends to redevelop Milton Chalet Motels (the site), located at 119 -121 Milton Street, Nelson, for high-density residential use.

A PSI has been undertaken to determine whether the property is a *piece of land* as defined by the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) and, if so, to assess the potential risk posed by the proposed activity. This PSI consists of a desk-based review of relevant information, a site walkover, and preliminary soil sampling to determine whether any activities on the Ministry for the Environment's (MfE) Hazardous Activities and Industries List (HAIL) have been or are being carried out at the site.

The site has been used for horticultural activity including glasshouses/hot houses since no later than 1948, the date of the earliest available aerial imagery. Most of the site was redeveloped in the early 1970s into its current usage as a motel, while the south-eastern portion continued to be used for horticultural purposes. The glasshouse and hot house in this area were demolished in 2020. An underground diesel tank was present on the motel site from the early 1970s until its removal in 2005. Property file documents indicate that the presence of the tank is unlikely to have had a negative impact on soil quality in the area.

Soil samples were collected in the vicinity of the former horticultural structures as well as from other soft-covered parts of the site in order to assess whether there had been impacts from the former usage of the site. Additionally, soil samples have previously been collected from the south-eastern portion of the site as part of the assessment of the adjacent property.

Shallow soil at the site generally contains contaminant concentrations above background and cleanfill acceptance criteria but would be suitable for use in a high-density residential development with the exception of that found in the south-eastern corner of the site. Lead has been recorded in this area above human health standards and thus poses a potential risk to future site users. Remedial action will be required to ensure the site is suitable for use.

Based on the conclusions of this document the change of land use and land disturbance required to complete the development is considered a discretionary activity under Regulation 11 of the NESCS and will therefore require a resource consent. A remediation action plan (RAP), demonstrating how the potential risks identified in this report will be managed, will likely be required as a condition of a resource consent.

Additional sampling is recommended once the site buildings are removed to confirm management requirements of this soil and to better delineate the area requiring remediation and the areas of soil suitable for reuse. This information will inform the RAP.

Following the completion of remediation works, a site validation report (SVR) will need to be produced and submitted to NCC.

1.0 INTRODUCTION

Envirolink Limited (Envirolink) has been engaged by Milton 2014 Limited (the client) to produce a Preliminary Site Investigation (PSI) to support a resource consent application. It is understood that the client intends to redevelop Milton Chalet Motels (the site), located at 119 -121 Milton Street, Nelson, for high-density residential use. A development plan is presented in Appendix A.

The National Environmental Standard (NESCS) for Assessing and Managing Contaminants in Soil to Protect Human Health[1] requires a site investigation to be undertaken on properties that are undergoing a subdivision, a change of land use or significant land disturbance on a potentially contaminated site. Before the local council can authorise such activities an assessment of the site must be undertaken. The land use history of the site is assessed against the Hazardous Activities and Industries List (HAIL). The HAIL is a list of activities and industries that have the potential to contaminate soil. The investigation will indicate whether the site is fit for the proposed purpose or if additional information is required.

The south-eastern portion of the site has been previously investigated by Envirolink (as Tasman Environmental Management). This PSI references the associated report:

> Tasman Environmental Management, 2020. Detailed Site Investigation / Remediation Action Plan – 88 Cambria Street, Nelson. For: Homes Created Ltd. Ref: 201201_DSI.RAP_Cambria.v3a. Issued: December 2020.

[1] Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

2.0 OBJECTIVES AND SCOPE OF WORK

The objectives of this PSI are to:

- Identify potential historical and/or current sources of contamination within the site and immediate surrounding area;
- Identify potential contaminants of concern;
- Determine if an activity or industry described in the October 2011 edition of the Ministry for the Environment (MfE) Hazardous Activities and Industries List (HAIL) is being undertaken, has been undertaken, or is more likely than not to have been undertaken on the site;
- If so, assess the likelihood of human health being at risk if the proposed activity is undertaken; and
- Provide sufficient information to determine if a consent under the NESCS is required.

The following scope is proposed to achieve the above objectives:

- Desk-based review of available information including:
    - Regional geological and hydrological setting;
    - Nelson City Council (NCC) property files;
    - Historical aerial photography (made available by NCC and Retrolens); and
    - Any other relevant documents provided to Envirolink by the client.
- Site walkover/inspection;
- Collection and lab analysis of shallow soil samples;
- Production of this PSI report summarising the above consistent with the requirements of CLMG No. 1 – Reporting on Contaminated Sites in New Zealand (Revised 2011).

The results and recommendations included in this investigation will accompany any resource or building consent applications that are required for future development and provide a reference to contractors and maintenance workers working on the property.

3.0 SITE CONDITIONS AND SURROUNDING ENVIRONMENT

3.1 Site Identification and Setting

Site address:	119 & 121 Milton Street, 88 Cambria Street
Locality:	The Wood, Nelson 7010
Owner	Milton 2014 Limited
Legal description:	Lot 1 DP 8154, Lot 2 DP 8154, Lot 3 DP 8154, SO 112 Pt Sec 275, Part SO 112 Pt Sec 273
Development area	3,500 m^2
Map reference:	Latitude: -41.2679425 Longitude: 173.2952829,

The site is located at the corner of Milton and Cambria Streets in Nelson's 'The Wood' suburb, approximately 1 kilometre (km) northeast of Nelson CBD. The location and layout of the site is shown on Figures 1 and 2.



Figure 1 - Site Location



Figure 2 - Site Layout (red highlight)

The majority of the site is occupied by Milton Chalet Motels; however, the study area includes part of a currently undeveloped parcel associated with 88 Cambria. We understand it is intended that this area is to be subdivided and amalgamated with the current motel parcel.

The site is bounded by residential properties and is located in a predominantly residential area. The site is in a *Residential – Higher Density Area* zone under the Nelson Resource Management Plan.

3.2 Site Description

A walkover was undertaken on 10 June 2021. Selected photos are presented in Appendix B and should be reviewed for reference.

The site consists of one and two-storey concrete block motel buildings and soft-covered landscaped areas. Tarmacked driveways and parking areas are present around the buildings. A swimming pool is located in the centre of the site.

Above ground structures have been removed from the parcel to the rear of the motel associated with 88 Cambria. Surfacing comprises soil/vegetation, imported gravel, and some building material. Concrete slabs and former building foundations were noted in places. At the time of the walkover, the area was only in use for storage of a boat.

3.3 Geological and Hydrological Setting

The published site geology from the GNS Science 1:250k web map for New Zealand identifies the site as underlain by Holocene river deposits described as *'well sorted gravels forming modern flood plains and young fan gravels'*.

The site is located in a fault hazard area.

The Maitai River is located approximately 500m to the southwest of the site. Tasman Bay is located 650m to the northwest.

Groundwater depth was not investigated as part of this investigation and is not considered a sensitive exposure pathway in the context of the proposed activity.

4.0 SITE HISTORY AND RECORD SEARCH

4.1 Historical Aerial Photographs

A review of historical aerial photographs (1948 and 2021) available from NCC, Retrolens, and Google was undertaken as part of this assessment. Aerial photography assessed is presented in Appendix C.

The following can be summarised from the reviewed photographs:

Table 1 - Historical Aerial Photograph Descriptions

Date	Description
1948	This photo shows a mixture of glasshouses and what appear to be residential properties. Two house-sized structures are present in the southwest. Two glasshouses run north to south in the middle of the site. A glasshouse is also present in the eastern portion of the site. The north-western corner of the site does not appear to be developed. The wider area around the site is a mixture of residential properties and glasshouses.
1964	No significant changes noted. In this higher resolution photograph small sheds are visible to the rear of the houses on Milton Street, possibly associated with the glasshouses. The small glasshouse in the southeast portion of the site which was recently demolished is visible.
1969	No significant changes noted.
1974	The site has been redeveloped into the current motel. The major buildings are present in the current layout with the exception of the building along the southern site boundary, which does not extend as far to the east as the current one.
1983	The building along the southern site boundary has been extended to its current footprint.
2005	A long structure, possibly a hot house, is present in the south-eastern corner of the site. The majority of this structure is located to the east of the site. No other changes are evident.
2010	No significant changes noted.
2020	No significant changes noted.
2021	No significant changes noted to the motel area. The large structure (hot house) overlapping the southeast corner of the site appears to have been removed.

At the time of the earliest available aerial photograph (1948), the site was in horticultural and residential usage with multiple glasshouses present. The majority of the site was redeveloped as a motel in the early 1970s. Since the redevelopment, only minor changes are noted with the exception of the construction (1980s) and demolition (2020) of a large hot house on part of the south-eastern corner of the site.

4.2 Property File Review

Property file documents (included in Appendix D) indicate a 500 gallon underground storage tank (UST) for diesel fuel was installed in 1972 in the vicinity of the swimming pool between the house/office and motel units. Records indicate that the tank was removed in 2005 with laboratory results suggesting that significant leakage from the tank is unlikely to have occurred.

Building permits indicate that the motel was constructed in approximately 1972-1973.

The portions of the site associated with horticultural use and fuel storage are listed on NCC's HAIL register[2].

4.3 Summary of Potentially Contaminative Land Uses

A review of the site's history indicates that the following HAIL activities are more likely than not to have occurred on the property:

Table 2 - Identified HAIL Site Usage

Activity	HAIL Category	Associated Contaminants
Underground diesel storage	A17: Storage tanks or drums for fuel, chemicals or liquid waste	Petroleum hydrocarbons
Operation of hot houses/glasshouses	A10: Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds	Organochlorine pesticides (OCP) including DDT
Weathering of paint from hot houses/glasshouses	I: Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that is could be a risk to human health or the environment.	Lead

[2] HAIL IDs: HAIL10698 and HAIL10230

5.0 PRELIMINARY SOIL SAMPLING

In order to determine whether the previously identified HAIL usages of the site may have negatively impacted soil quality, preliminary samples were collected from shallow soil at the time of the walkover.

The Contaminated Land Management Guidelines #1: Reporting on Contaminated Sites in New Zealand, allow for the collection and analysis of preliminary soil samples to compliment the conclusions of the site history.

5.1 Sample Collection

Samples were collected from six locations, as shown in Figure 3, at a depth interval of 0-100mm below ground level (bgl).

Samples MC2, MC3, and MC6 were collected in the vicinity of the former horticultural structures and were analysed for heavy metals and OCP. Samples MC1, MC4, and MC5 were collected for coverage and analysed for heavy metals.

No samples were collected from the area of the former UST as samples were collected and analysed when the tank was removed.

Samples were not collected from the area of the former hot house in the south-eastern portion of the site as this area has been previously sampled. Soil sampling was undertaken in 2018 and 2020 for the area of the recently demolished glasshouse/hothouse in the south-eastern portion of the site as part of the assessment of 88 Cambria Street.

Samples were collected using a stainless-steel trowel. Samples were placed directly into laboratory-supplied sample containers. Field staff wore clean disposable gloves when collecting each sample to minimise the potential for cross contamination. All sampling equipment was cleaned in Decon 90 and rinsed in freshwater before collecting each sample.

Soil samples were delivered to the Hill Laboratories depot in Blenheim under chain of custody documentation.



Legend

Site Boundary

Soil Sample Locations

2021

2020

2018

Notes:
1) This drawing indicates the approximate location of soil samples collected within the study site area.
2) Samples collected in 2018 and 2020 were reported on in Tasman Environmental Management, 2020. Detailed Site Investigation / Remediation Action Plan – 88 Cambria Street, Nelson. For: Homes Created Ltd. Ref: 201201_DSI.RAP_Cambria.v3a.
3) For information only. Not to be used for construction.

0 10 20 30

meters

Scale 1:500 @ A4

Project: Milton Chalet - PSI

Figure: 3 - Soil Sample Locations

envirolink
Nga tangata ki pūtaiao

Map CRS: EPSG:2193
Coordinate Units: Meters
Map Scale: 1:500
Page Size: A4
Drawn By: David Duncan
Production Date: 2021-06-22
Made with: QGIS 3.16 on Windows

5.2 Trigger Values

Soil sample results are compared to the trigger values listed in Tables B2 and B3 (soil contaminant standards for health for inorganic substances and organic compounds) of the NESCS (2011). Due to the small size of gardens and minimal amounts of soft cover in them, the appropriate land use for the proposed development is *high-density residential*.

For analytes that are not listed as priority contaminants in the NESCS, the Contaminated Land Management Guidelines # 2 (CLMG2): Hierarchy and Application in New Zealand of Environmental Guideline Values (2003) provides guidance.

Zinc and nickel are not included as priority contaminants under the NESCS, therefore the 2011 National Environment Protection (Assessment of Site Contamination) Measure Schedule B1 (NEPM)[3] high-density residential land use is used.

Heavy metals results are also compared to the background and cleanfill acceptance criteria listed in Cavanagh (2015)[4] in order to provide an indication of resource consent requirements and waste classification should soil need to be removed from the site. For DDT assessment, the background concentration is taken from Gaw (2003)[5] and cleanfill acceptance from WasteMINZ (2018)[6].

5.3 Analytical Results

Table 3 shows the analytical results and includes those from previous investigations. The Hill Laboratories certificate of analysis for the 2021 samples is attached as Appendix E.

The results of the preliminary soil sampling indicate that, for the majority of the site, the contaminants of concern are typically present at concentrations above cleanfill acceptance criteria, but below human health guidelines.

In south-eastern area where the glasshouse and hot house were recently demolished, lead is elevated above the human health standard in multiple samples. CS1/3, collected in 2020 from a depth of 350-500 mm bgl, was slightly above the standard indicating that the depth of impact is beyond surficial soils.

[3] National Environment Protection (Assessment of Site Contamination) Measure 1999 (revised 2013). Schedule B1 Guideline on Investigation Levels for Soil and Groundwater, Table 1A(1).

[4] Cavanagh, J., (2015). Background concentrations of trace elements and options for managing soil quality in the Tasman and Nelson Districts. Envirolink Advice Grant: 1555-TSDC110.

[5] Gaw, S, K., 2003. Historic Pesticide Residues in Horticultural and Grazing Soils in the Tasman District, TDC Rural Soils Report.

6 Waste Management Institute New Zealand, 2018. Technical Guidelines for Disposal to Land Appendices, Table C-2 and Table C-3.

Table 3 - Summary of Analytical Results (2018-2021)

Sample Location		Depth (mm)	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Total DDT
MC1 (2021)		0-100	7	0.39	174	60	115	310	181	0.42
MC2 (2021)		0-100	10	0.62	151	50	310	240	220	0.35
MC3 (2021)		0-100	14	0.6	153	460	192	240	230	-
MC4 (2021)		0-100	5	0.18	94	32	179	154	159	-
MC5 (2021)		0-100	6	0.31	220	57	710	360	310	0.6
MC6 (2021)		0-100	8	0.7	240	56	270	430	230	0.42
CS1 (2018)		0-100	9			88	1,310			2.5
CS2 (2018)		0-100	15			129	310			
CS3 (2018)		0-100	7			97	490			
CS1/1 (2020)		0-100	10			77	1,010			0.79
CS1/2 (2020)		150-250	9			77	1,120			1.52
CS1/3 (2020)		350-500	5			51	530			
CS2/1 (2020)		0-100	13			155	1,140			
CS2/2 (2020)		150-250	13			133	1,410			
CS2/3 (2020)		350-500	5			55	178			
Assessment Criteria	**Background**		11	0.90	93.5	41.5	33	53.4	141.5	0.48
	NCC Cleanfill		12	0.75	140	83	86	58	300	0.7
	NESCS[7] - High-density Residential		45	230	1,500	>10,000	500	1,200*	60,000*	240

Notes: All concentrations expressed as mg/kg
"CS" samples collected in previous investigations and reported on in TEM (2020)[8]
Background is based on 99th percentile concentrations in Table 1 from Cavanagh (2015)[9]
Cleanfill Acceptance is based on recommended cleanfill criteria in Table S1 from Cavanagh (2015)[9]
Australian NEPM value used in absence of NZ standard[10]

[7] Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.
[8] Tasman Environmental Management, 2020. Detailed Site Investigation / Remediation Action Plan – 88 Cambria Street, Nelson. For: Homes Created Ltd. Ref: 201201_DSI.RAP_Cambria.v3a. Issued: December 2020.
[9] Cavanagh, J., (2015). Background concentrations of trace elements and options for managing soil quality in the Tasman and Nelson Districts. Envirolink Advice Grant: 1555-TSDC110.
[10] National Environment Protection (Assessment of Site Contamination) Measure 1999 (revised 2013). Schedule B1 Guideline on Investigation Levels for Soil and Groundwater, Table 1A(1).

6.0 CONCEPTUAL SITE MODEL

The conceptual site model (CSM) has been developed from an assessment of sources of contaminants, potential exposure pathways, and feasible receptors. A risk is present if a complete pathway is present between the source of contamination and the receptors.

Future site users in a high-density residential scenario are considered to be the only on-site receptors. The appropriate management of soil removed from the site will minimise risk posed to off-site receptors such as sensitive ecological environments.

Table 4 presents the potential contaminant linkages at the site.

Table 4 - Conceptual Site Model - Linkage Assessment

Source (HAIL Category)	Associated Contaminants	Pathway	Receptor	Linkage Active?
Fuel Storage – A17	Petroleum hydrocarbons in shallow soil and groundwater	• Inhalation • Ingestion • Dermal Contact	• Future site users	No, source removed
Glasshouses (Pesticide usage) – A10	OCPs in shallow soil			No, OCP concentrations below human health standards
Glasshouses (paint weathering) - I	Heavy metals in shallow soil			Yes, human health standards for lead exceeded

Some of the identified potential contaminant sources have been discounted based on information reviewed and the results of soil analysis. The risk of hydrocarbon impact from the former UST appears minimal based on the soil sampling carried out when it was removed. OCP concentrations have been measured above cleanfill acceptance criteria, but below human health standards.

Lead has been recorded in part of the site above human health standards and thus poses a potential risk to future site users. Remedial action will be required to ensure the site is suitable for use. Any soil removed from the site should be disposed of at a facility authorised to accept it.

7.0 PLANNING CONSIDERATIONS

This PSI has identified HAIL activities having been undertaken on the study site and, as such, it is considered to be a '*piece of land*' under the NESCS. As lead concentrations have been reported above the NESCS standard for high-density residential land use, the development presents a potential risk to human health.

Based on the conclusions of this document the change of land use and land disturbance required to complete the development would be considered a restricted discretionary activity or a discretionary activity under Regulations 10 and 11 of the NESCS and will therefore require a resource consent.

This PSI is considered sufficient to demonstrate the presence of a potential human health risk and the need for remedial action; however, a full detailed site investigation (DSI) has not been produced as the presence of structures over much of the site prevents a more comprehensive investigation. While a DSI does not exist for the property, the development would be considered a discretionary activity.

Due to the elevated lead concentrations noted in shallow soil, the production of a remedial action plan (RAP) will likely be required to ensure potential risks to human health are appropriately managed and that any excess material generated during the development of the property is disposed of at a facility authorised to accept it.

8.0 CONCLUSIONS

The site has been used for horticultural activity including glasshouses/hot houses since no later than 1948, the date of the earliest available aerial imagery. Most of the site was redeveloped in the early 1970s into its current usage as a motel, while the south-eastern portion continued to be used for horticultural purposes. The glasshouse and hot house in this area were demolished in 2020.

An underground diesel tank was present on the motel site from the early 1970s until its removal in 2005. Property file documents indicate that the presence of the tank is unlikely to have had a negative impact on soil quality in the area.

Soil samples were collected in the vicinity of the former horticultural structures as well as from other soft-covered parts of the site in order to assess whether there had been impacts from the former usage of the site. Additionally, soil samples have previously been collected from the south-eastern portion of the site as part of the assessment of the adjacent property.

Shallow soil at the site generally contains contaminant concentrations above background and cleanfill acceptance criteria but would be suitable for use in a high-density residential development with the exception of that found in the south-eastern corner of the site.

Lead has been recorded in the south-eastern part of the site above human health standards and thus poses a potential risk to future site users. Remedial action will be required to ensure the site is suitable for use. As the current development plan includes large areas of sealed surfacing in the impacted area, it may not be necessary to remove all impacted soil from the site, subject to an engineer's approval. Any soil removed from the site should be disposed of at a suitably licenced facility, which is most likely York Valley Landfill. Additional laboratory analysis may be required to meet York Valley acceptance requirements.

Based on the conclusions of this document the change of land use and land disturbance required to complete the development is considered a discretionary activity under Regulation 11 of the NESCS and will therefore require a resource consent. A RAP, demonstrating how the potential risks identified in this report will be managed, will likely be required as a condition of a resource consent.

Additional sampling is recommended once the site buildings are removed to confirm management requirements of this soil and to better delineate the area requiring remediation and the areas of soil suitable for reuse. This information will inform the RAP.

Following the completion of remediation works, a site validation report (SVR) will need to be produced and submitted to NCC.

9.0 LIMITATIONS

This report has been prepared solely for the purposes of Milton 2014 Limited and Nelson City Council. The information contained herein is confidential and shall not be passed on to any third party without prior written permission of Envirolink. No responsibility is accepted for any use outside the scope of this report.

This report has been prepared based on site conditions as they exist at the time of the investigation. If subsequent investigations or remedial actions are undertaken from the date of this report then certain aspects of this report may no longer be relevant or require amendment. In addition, if HAIL activities occur on the site after the date of this report then the conclusions and recommendations presented in this report may no longer be relied on.

Discussion on the sampling methods and results in this report are based on current recognised guidelines and trigger values. These methods and assessment criteria may change and concentrations of a contaminant, which are currently deemed acceptable, may in the future become subject to new or updated standards. This may cause the contaminant concentrations to become unacceptable and require further management or remediation to enable the site to be deemed suitable for existing or proposed land use activities.

It is not practicable for any investigation to be so complete that it can accurately detect all contaminants and establish a detailed record of their concentrations throughout a site. However, the current investigation has been carried out to provide a level of characterisation commensurate with an acceptable assessment of site conditions.

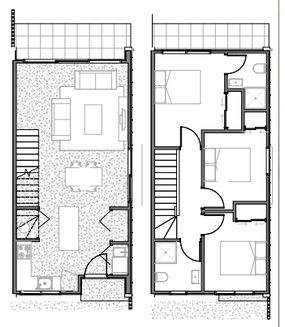
This investigation was carried out solely for the purpose of assessing contaminants in the soil associated with the land being suitable for human occupation only. It has purposely not assessed the possible impacts of contaminants on ecological values that may be associated with the site. Any other investigations that are required to determine the suitability of this property are outside the scope of this report.

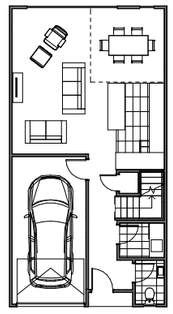
Appendix A
Drawings

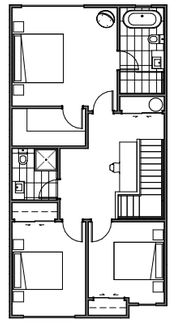
20 LOTS

Three-bedroom Two story 80m2
Ground floor 40m2
First floor 40m2









Three-bedroom Two story 156m2
Ground floor 76m2
First floor 80m2

Scale 1:250

ARCHITECTS jerram tocker + barron

NZIA PRACTICE

jerram + tocker + barron architects ltd
+64 3 548 8781 | office@jtbarchitects.co.nz | www.jtbarchitects.co.nz
AUCKLAND | WELLINGTON | NELSON | CHRISTCHURCH

Milton Street Development-update

Bulk and Location-update

115-117 Milton Street Nelson 7020

Drawing
Option 1

DATE
29.03.2021

Number
A03

Tuesday, 15 June

Appendix B
Site Photographs



Photo 1: **North-western corner of the site at the junction of Milton and Cambria Streets. Location of sample MC1.**



Photo 2: **View along the northern site boundary, facing west along Cambria Street. Location of sample MC2.**



Photo 3: **The swimming pool in the centre of the site with landscaping around. Location of sample MC3.**



Photo 4: **Landscaping in southwestern corner of site along Milton Street. Location of sample MC4.**



Photo 5: **View of south-eastern corner of the motel site facing southeast. Sample MC5 collected from this area. Former glasshouse and hot house present to the right beyond the fence.**



Photo 6: **View of south-eastern corner of the motel site facing north. Sample MC5 collected from this area. Former glasshouse and hot house present to the right beyond the fence.**



Photo 7: **View of the easternmost portion of the current motel footprint, facing south towards the former hot house beyond the fence. Sample MC6 collected from playground area.**



Photo 8: **View of central motel units facing west (82-84 Cambria present to the right beyond the fence).**

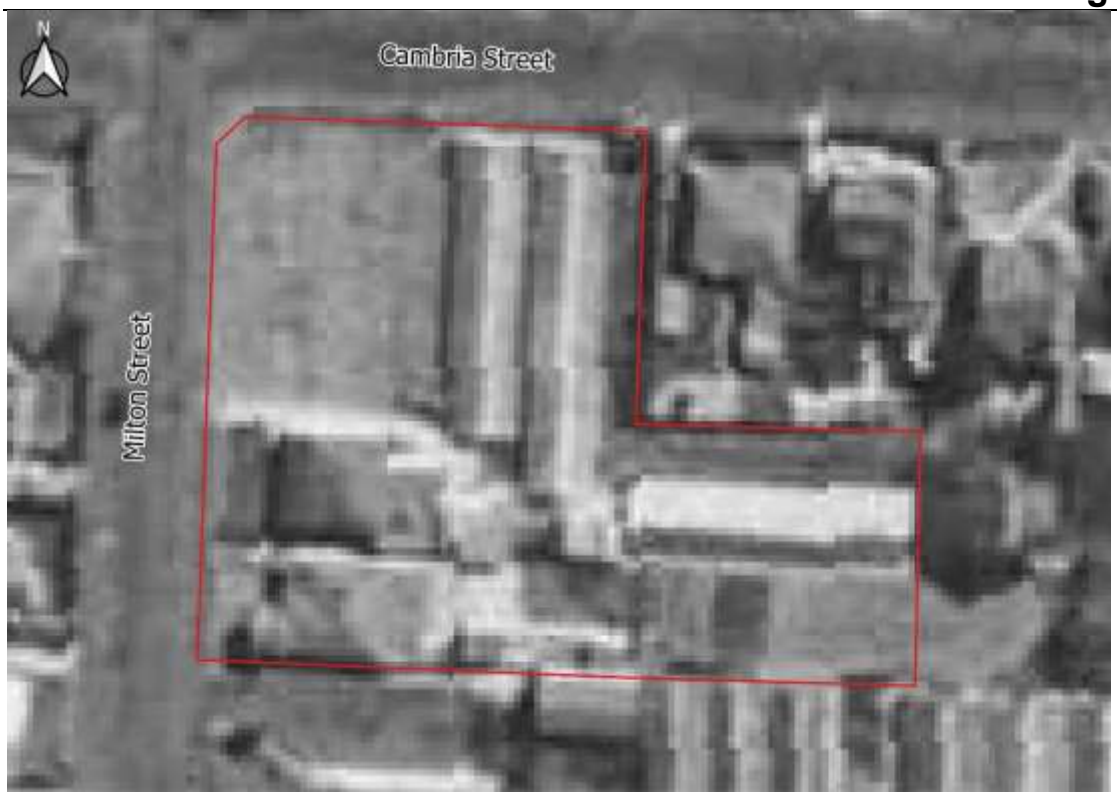


Photo 9: View of the south-eastern portion of the site, facing southeast. Area of former glasshouse, with former hot house beyond.

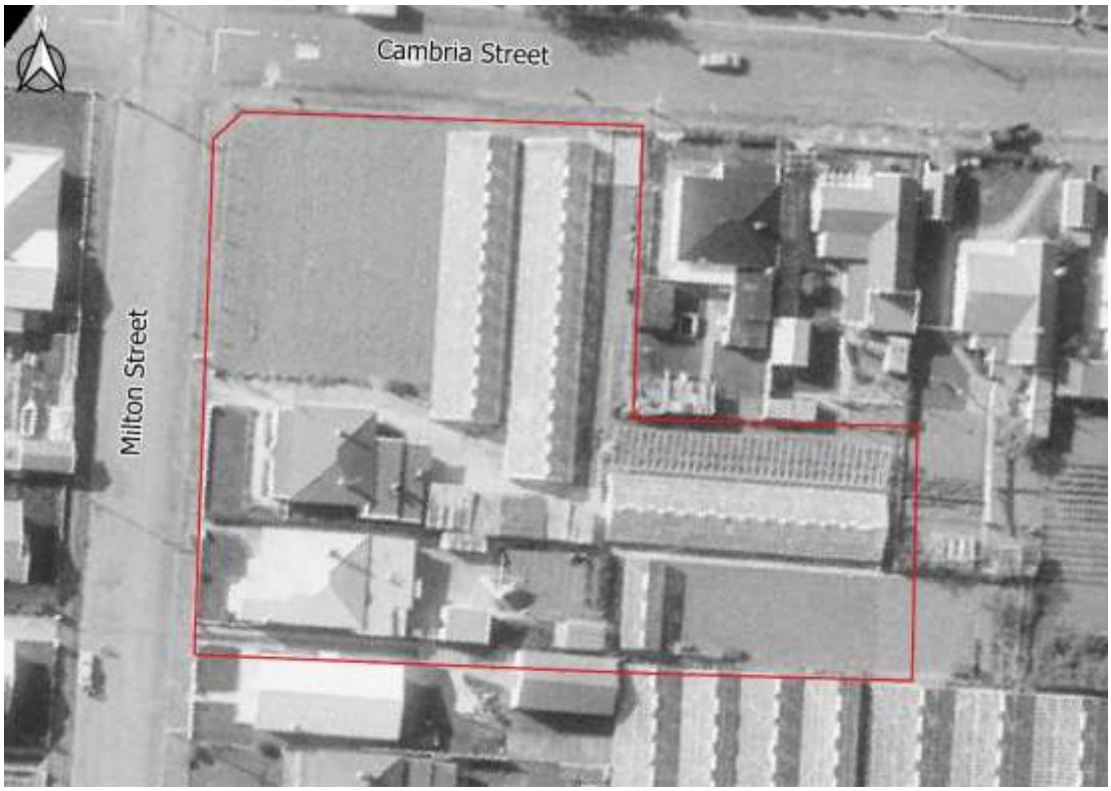


Photo 10: Area of former hot house, facing west towards motel.

Appendix C
Historical Aerial Photography



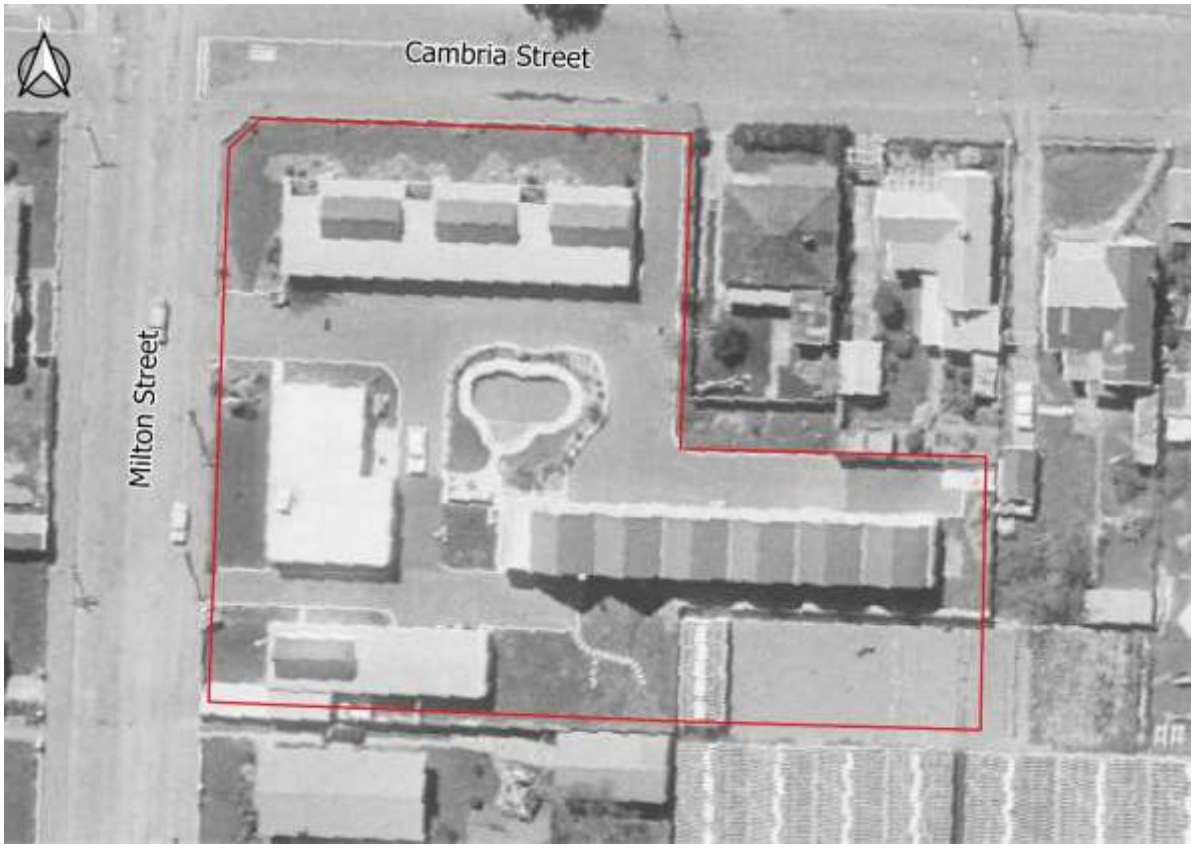
1948 Aerial Photograph (Retrolens)



1964 Aerial Photograph (Retrolens)



1969 Aerial Photograph (Retrolens)



1974 Aerial Photograph (Retrolens)



1983 Aerial Photograph (Retrolens)



2005 Aerial Photograph (Google)

Appendix C – Historical Aerial Photography



2010 Aerial Photograph (Google)



2020 Aerial Photograph (Google)

Appendix D
Selected Property File Documents

Explanatory Note

It is recommended that the reader contact the appropriate Council Officer in order to obtain further information and advice relating to the contents of this document.

Please enquire at the
Nelson City Council
Customer Service Centre
for contact information.

Explanatory Note

Tank pull carried out Milton St Chalet - 8/7/05 - all clear, copy of test results to come to me

JB

64 3 5482016

FAX

MWH

First Floor, 281 Queen Street
P O Box 3455
Richmond, Nelson, NZ

Tel: 64-3-546 8728
Fax: 64-3-548 2016
www.mwhglobal.com/nz

Date: 28 July 2005

To: Brent Higgins **Fax No:** 546 0239

From: Nigel Langdon **Reference:**

Subject: Milton St Chalet, Tank Validation Results **No. of Pages (including cover):** 3

Brent

Attached are the Laboratory Results for the Tank Validation at 119 Milton St.
Feel free to contact me to discuss.

Yours sincerely
MWH NEW ZEALAND LTD

Nigel Langdon

Nigel Langdon
Ph: 546 0643
Em: Nigel.I.Langdon@mwhglobal.com

Brent H Fax

This facsimile message from MWH New Zealand Ltd may contain information that is confidential. If you are not the intended recipient, you may not use, copy or disseminate this message. If you have received this message in error, please telephone us (collect) and destroy the original message.

64 3 5482016

Hill Laboratories

RJ Hill Laboratories Limited

Address: 1 Clyde Street, Private Bag 3205, Hamilton, New Zealand
Telephone: +64 (7) 858-2000
Facsimile: +64 (7) 858-2001
Email: mail@hill-labs.co.nz
Internet: www.hill-labs.co.nz

20 JUL 2005
BY:

Client: MWH New Zealand Limited
Address: P O Box 3455, Richmond
NELSON
Contact: MWH New Zealand Limited

Laboratory No: 383417
Date Registered: 9/07/2005
Date Completed: 15/07/2005
Page Number: 1 of 3

Client's Reference: Milton St Chalet

The results for the analyses you requested are as follows:

Sample Type: Environmental Solids, Soil

Sample Name	Lab No	Dry Matter (g/100g as rcvd)
S1	383417/1	76.7
N1	383417/2	82.1
W1	383417/3	86.1
SS2	383417/4	75.9
NC	383417/5	88.8
E1	383417/6	76.1
SS1	383417/7	74.6
Vent 1	383417/8	84.7
Bedding	383417/9	95.5
Bottom	383417/10	76.5

Total Hydrocarbons by GC-FID [OIEWG carbon bands]

Sample Name	S1	N1	W1	SS2	NC
Lab No	383417/1	383417/2	383417/3	383417/4	383417/5
Units	(mg/kg dry wt)	(mg/kg dry wt)	(mg/kg dry wt)	(mg/kg dry wt)	(mg/kg dry wt)
C7-C9	< 8	< 8	< 8	< 9	< 7
C10-C14	< 20	< 20	< 20	< 20	< 10
C15-C36	< 40	< 40	< 40	< 40	< 30
TOTAL	< 60	< 60	< 60	< 70	< 60

Total Hydrocarbons by GC-FID [OIEWG carbon bands]

Sample Name	E1	SS1	Vent 1	Bedding	Bottom
Lab No	383417/6	383417/7	383417/8	383417/9	383417/10
Units	(mg/kg dry wt)	(mg/kg dry wt)	(mg/kg dry wt)	(mg/kg dry wt)	(mg/kg dry wt)
C7-C9	< 8	< 9	< 8	< 7	< 9
C10-C14	< 20	< 20	< 20	< 10	< 20
C15-C36	< 40	100	70	< 30	< 40
TOTAL	< 60	100	70	< 50	< 70

365 laboratory

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 *, which are not accredited.

64 3 5482016

Client:MWH New Zealand Limited **Laboratory No:**383417

Summary of Methods Used and Detection Limits

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 clean 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.

Substance Type: Environmental Solids

Parameter		Method Used	Detection Limit
Dry Matter		Dried at 103°C, gravimetric (removes 3-5% more water than air drying at 35°C)	0.1 g/100g as rcvd
Total Hydrocarbons by GC-FID carbon bands]	OIEWG	ASE or Sonication Extraction, GC-FID Quantitation US EPA 8015B/NZ OIEWG	N/A

Analyst's Comments:

These samples were collected by yourselves and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the submitter.

This report must not be reproduced, except in full, without the written consent of the signatory.

Peter Robinson, MSc(Hons), PhD FNZIC
Environmental Division Manager

Terry Cooney, MSc(Hons), PhD MNZIC
General Manager

Received Time 28 Jul 20:00

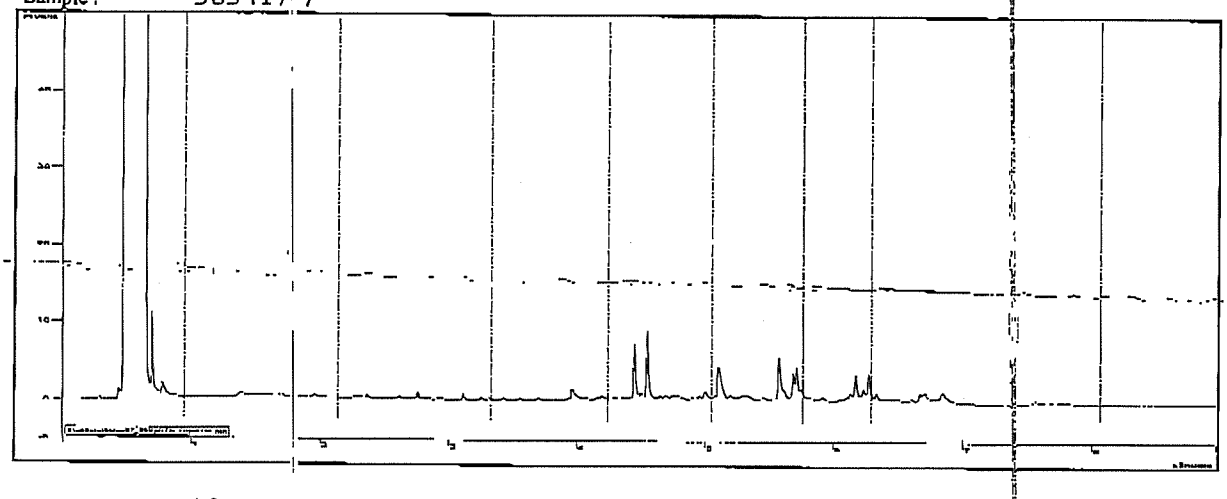
64 3 5482016

Hill Laboratories, Hamilton, NZ

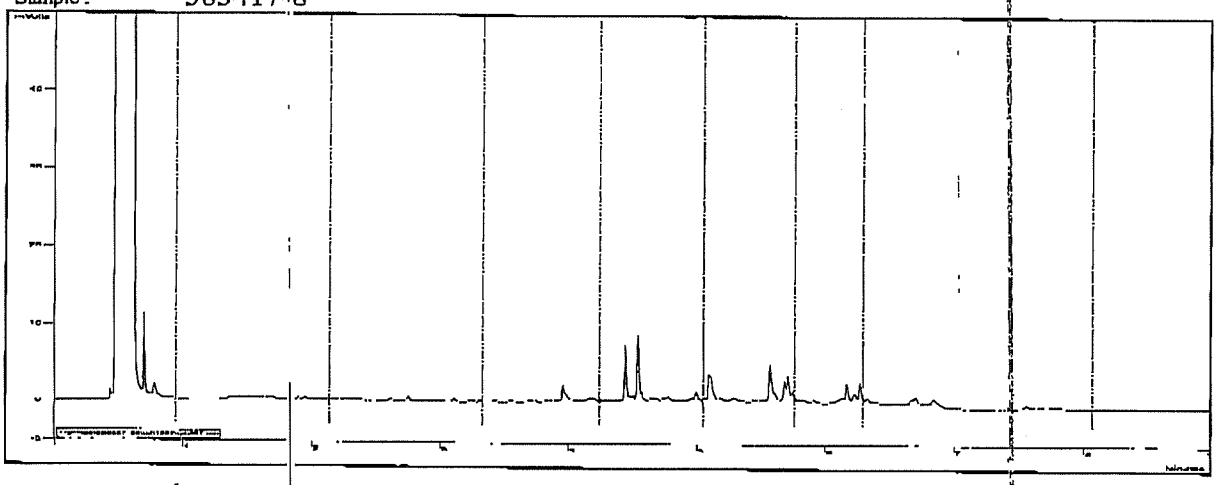
Total Petroleum Hydrocarbon Chromatograms

Appendix

Sample: 383417-7



Sample: 383417-8



PPR 116814 (H)
131359

NELSON CITY COUNCIL

SPECIAL BUILDING APPLICATION FORM

NO. E51541

DATE 2.10.72

For use for:- Forming accessways, piping ditches, erecting signs, culverts, bridges and siting tanks.

To: The City Engineer,
NELSON.

Sir,

I hereby apply for permission to INSTALL D/G
Sewage Tank

for Mr. Chalet Motels Ltd (owner) of MILTON ST CITY (owner's address)

according to plans deposited IN DUPLICATE herewith.

PARTICULARS OF LAND: 117 MILTON ST

Lot — D.P. — Section PT. 273/275

Street No. 1971/705 (if allotted) Cnr Milton & Cambria Street

ESTIMATED COST OF WORK: $.100

(Signature of Applicant)

Address 74 TAHUNANUI DRIVE
Nelson.

NOTE: For Accessways:- Requirements are plans showing:-

1. Grade, width and type of surface of drive.
2. Front and side boundaries of site and edge of formed road.
3. Details of stormwater pipe if required.

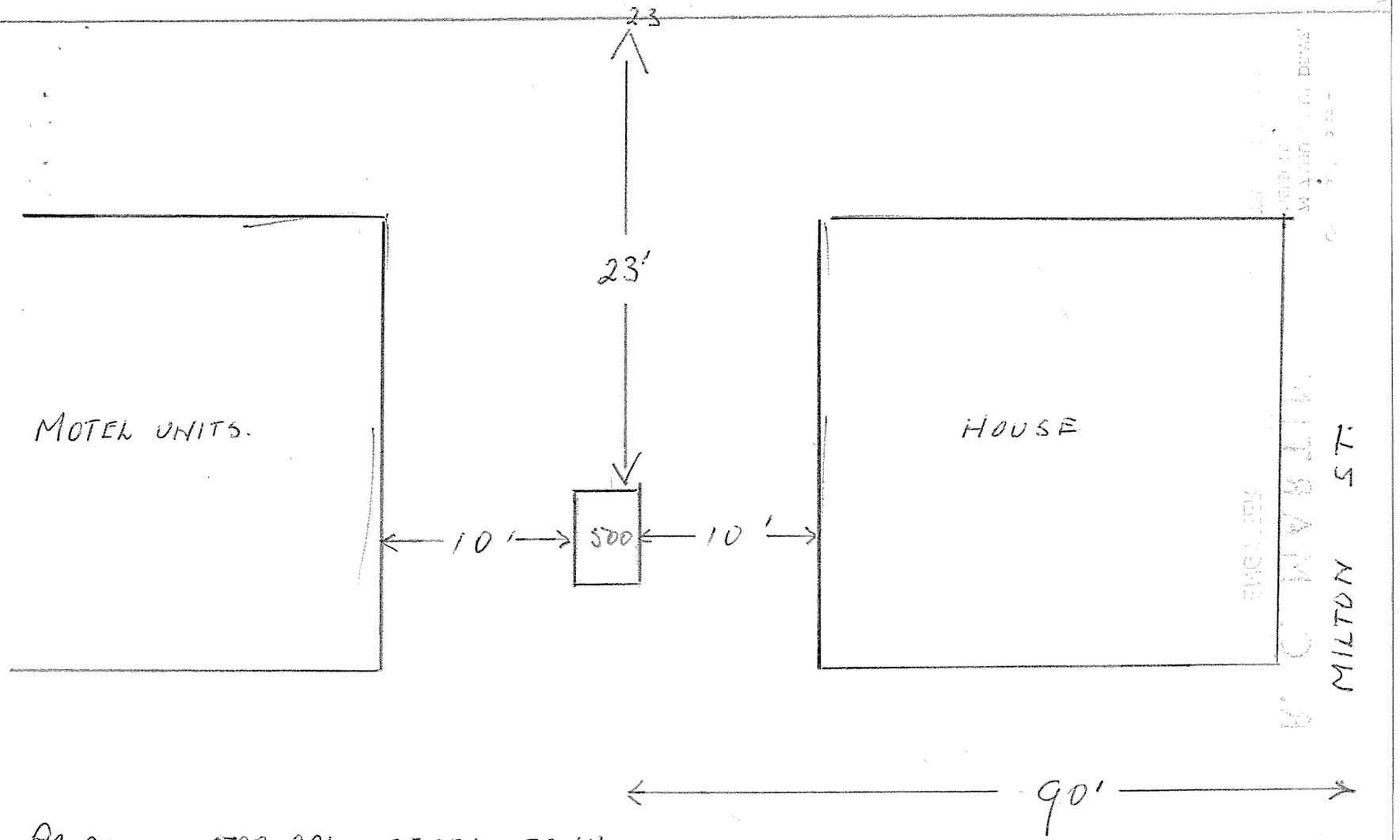
Building Application Fees:

Not exceeding	$20					50c
Over	$20	and not	exceeding		$200	$1
"	$200	"	"	"	$400	2
"	$400	"	"	"	$600	3
"	$600	"	"	"	$800	4
"	$800	"	"	"	$1000	5
"	$1000	"	"	"	$1200	6

Permit Fee 1.00

Receipt No. 396136

Date 16/10/1972



PROPOSED 500 GAL. DEISEL. TANK.
FOR. CHALET MOTELS LTD.
MILTON ST. NELSON.

1921/105
PT-SEC 23 & 24 S. City of Nelson

TANK IN AN EARTH PIT.
TO NCC. APPROVED PLAN.

R. C. MARTIN
ENGINEER

Correspondence to—
74 TAHUNANUI DRIVE,
NELSON.
TELEPHONE 86 172

PRELIM. CHECK No ☐ NELSON CITY COUNCIL Dates: Rec'd; 3/10/72 Notific. by; 11/10/72

2nd copy plans detached ☐

BUILDING INSPECTION SHEET $1.00

Locality 119 MILTON ST

Lot ____ D.P. PT 273/5

Application for; Installation of 500 gal tank

Owner; CHALET MOTELS LTD. Builder; MARTIN A.

				NON/COMPLIANCE DATE	APPROVED. DATE	APPROVED. INITIALS.	
A. Application form completed. Area of new buildings or additions.	☒	E. Special Conditions on specific sites.	☒	FORM & DATA.			1
B. Building Registration Certificate.	☒	F. Applications for occupation of streets and footpaths submitted.	☐				
C. Street No. Allocated.	☒	G. Licensing Commission.	☐		3/10	DR	
D. Application accompanying - Plumbing & Drainage; Water, Crossing.	☐	H. Labour Department. 96 Hour Cards - not applicable	☐				
ELECTRICITY DEPARTMENT				ELECTRICITY DEPT.			2
A. Building on Council land or street.	☐	D. Street vested in the council. DP or L.T. number issued & a copy of plan filed in Eng. Dept.	☒	LEGAL.			3
B. Building Line restriction.	☐				3/10		
C. Party wall registered.	☐						
A. Zoning and use.	☐	F. Accessory buildings: height, siting coverage, distance to neighbours dwg.	☐	TOWN PLANNING.			4
B. Yards; front, sides, rear: eaves.	☐						
C. Coverage and density.	☐	G. Off street parking, future garage sites on Residential sites.	☐	PROCESSED			
D. Height: general, com. streets, fences, special areas	☐	H. Method of joining household units.	☐		3/10		
E. Formation width: access to rear sites for Res. buildings of more than 6 h/u	☐	I. Verandahs; general & comm. streets.	☐				
DISPENSATION, CONDITIONAL USE, DEPARTURE.:- ____ Date Granted ____ Conditions, if any, complied with;							
A. Signs: Size, height above Gd., projection height above building.	☐	Skysigns.	☐	BYLAWS (General)			5
Electric signs-effect on traffic.	☐	Hoardings.	☐				
Flashing signs - zone	☐	B. Poultry Houses.	☐		3/10		
		C. Aviaries.	☐				
A. General Plumbing	☐	F. Drainage.	☐	HEALTH, PLUMBING and DRAINAGE.			6
B. Number of sanitary fittings.	☐	G. Stormwater drains.	☐				
C. Isolation of W.C. compartments.	☐	H. Drains under buildings	☐				
D. Lighting & Ventilation of WC's & urinals.	☐	I. Septic Tank approval.	☐		4/10		
E. Buildings. Compliance with Health Act.	☐	J. Copy of Health Depts apprvl. (Offensive T).	☐				
A. Fire Risk Area.	☐	F. Fire rating structural frames.	☐	FIRE REQUIREMENTS			7
B. Classification of occupancy, Type Constn.	☐	G. Fire rating of floors.	☐				
C. Fire Compartment size, exceptions to areas.	☐	H. Separation of occupancies.	☐		4/10		
		I. Roof space restriction	☐				
D. External walls, parapets, ommission of walls	☐	J. Special Requirements for places of assembly.	☐				
E. % of openings in walls, fire windows & doors.	☐	K. Surface finish walls & ceilings.	☐				
A. Units of width of exitway required.	☐	E. Internal & external stairways.	☐	EGRESS			8
B. Number of exitways and arrangement.	☐	F. Protection of exitways.	☐				
C. Cul de sacs.	☐	G. Places of assembly & multi units.	☐		4/10		
D. Types of exitways & door openings in line with egress.	☐						
CHIEF FIRE OFFICER.				CHIEF FIRE OFFICER			9
						N A	
A. Use.	☐	F. Value.	☐	BUILDING BYLAWS.			10
B. Minimum floor area for rooms.	☐	G. Heating.	☐				
C. Combinations for rooms in h'sehold/unit.	☐	H. Capacity Electric H.W. Cylinder.	☐		5/10/72.		
D. Light & Ventilation.	☐	I Notification D.C. Insp. Central Heating.	☐				
E General Construction.	☐						
Structural. Accessways & Levels.							11
Waterway & Pipe sizes. Dangerous Goods. ✓ Mr Paynter.							12
						Amendments Required	
						Tel;	
						Letter;	
						Date;	
						Initials	
						PERMIT MAY BE ISSUED.	
						DR 5/10.	

tumbley N.C.C. plan No. issued

Appendix E
Laboratory Certificate of Analysis

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:	Envirolink Limited	**Lab No:**	2633263	SPv1
Contact:	David Duncan	**Date Received:**	10-Jun-2021	
	C/- Envirolink Limited	**Date Reported:**	16-Jun-2021	
	20 Stafford Drive	**Quote No:**	111845	
	Ruby Bay	**Order No:**		
	Mapua 7005	**Client Reference:**	Milton Chalet	
		Submitted By:	David Duncan	

Sample Type: Soil

Sample Name:		MC1 10-Jun-2021	MC2 10-Jun-2021	MC3 10-Jun-2021	MC4 10-Jun-2021	MC5 10-Jun-2021
Lab Number:		2633263.1	2633263.2	2633263.3	2633263.4	2633263.5
Individual Tests						
Dry Matter	g/100g as rcvd	-	72	70	-	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	7	10	14	5	6
Total Recoverable Cadmium	mg/kg dry wt	0.39	0.62	0.6	0.18	0.31
Total Recoverable Chromium	mg/kg dry wt	174	151	153	94	220
Total Recoverable Copper	mg/kg dry wt	60	50	460	32	57
Total Recoverable Lead	mg/kg dry wt	115	310	192	179	710
Total Recoverable Nickel	mg/kg dry wt	310	240	240	154	360
Total Recoverable Zinc	mg/kg dry wt	181	220	230	159	310
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	-	< 0.014	< 0.014	-	-
alpha-BHC	mg/kg dry wt	-	< 0.014	< 0.014	-	-
beta-BHC	mg/kg dry wt	-	< 0.014	< 0.014	-	-
delta-BHC	mg/kg dry wt	-	< 0.014	< 0.014	-	-
gamma-BHC (Lindane)	mg/kg dry wt	-	< 0.014	< 0.014	-	-
cis-Chlordane	mg/kg dry wt	-	< 0.014	< 0.014	-	-
trans-Chlordane	mg/kg dry wt	-	< 0.014	< 0.014	-	-
2,4'-DDD	mg/kg dry wt	-	< 0.014	< 0.014	-	-
4,4'-DDD	mg/kg dry wt	-	< 0.014	< 0.014	-	-
2,4'-DDE	mg/kg dry wt	-	< 0.014	< 0.014	-	-
4,4'-DDE	mg/kg dry wt	-	0.22	0.159	-	-
2,4'-DDT	mg/kg dry wt	-	< 0.014	< 0.014	-	-
4,4'-DDT	mg/kg dry wt	-	0.186	0.179	-	-
Total DDT Isomers	mg/kg dry wt	-	0.42	0.35	-	-
Dieldrin	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Endosulfan I	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Endosulfan II	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Endosulfan sulphate	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Endrin	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Endrin aldehyde	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Endrin ketone	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Heptachlor	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Heptachlor epoxide	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Hexachlorobenzene	mg/kg dry wt	-	< 0.014	< 0.014	-	-
Methoxychlor	mg/kg dry wt	-	< 0.014	< 0.014	-	-

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:		MC6 10-Jun-2021				
Lab Number:		2633263.6				
Individual Tests						
Dry Matter	g/100g as rcvd	78	-	-	-	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	8	-	-	-	-
Total Recoverable Cadmium	mg/kg dry wt	0.70	-	-	-	-
Total Recoverable Chromium	mg/kg dry wt	240	-	-	-	-
Total Recoverable Copper	mg/kg dry wt	56	-	-	-	-
Total Recoverable Lead	mg/kg dry wt	270	-	-	-	-
Total Recoverable Nickel	mg/kg dry wt	430	-	-	-	-
Total Recoverable Zinc	mg/kg dry wt	230	-	-	-	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.013	-	-	-	-
alpha-BHC	mg/kg dry wt	< 0.013	-	-	-	-
beta-BHC	mg/kg dry wt	< 0.013	-	-	-	-
delta-BHC	mg/kg dry wt	< 0.013	-	-	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.013	-	-	-	-
cis-Chlordane	mg/kg dry wt	< 0.013	-	-	-	-
trans-Chlordane	mg/kg dry wt	< 0.013	-	-	-	-
2,4'-DDD	mg/kg dry wt	< 0.013	-	-	-	-
4,4'-DDD	mg/kg dry wt	0.018	-	-	-	-
2,4'-DDE	mg/kg dry wt	< 0.013	-	-	-	-
4,4'-DDE	mg/kg dry wt	0.23	-	-	-	-
2,4'-DDT	mg/kg dry wt	< 0.013	-	-	-	-
4,4'-DDT	mg/kg dry wt	0.35	-	-	-	-
Total DDT Isomers	mg/kg dry wt	0.60	-	-	-	-
Dieldrin	mg/kg dry wt	< 0.013	-	-	-	-
Endosulfan I	mg/kg dry wt	< 0.013	-	-	-	-
Endosulfan II	mg/kg dry wt	< 0.013	-	-	-	-
Endosulfan sulphate	mg/kg dry wt	< 0.013	-	-	-	-
Endrin	mg/kg dry wt	< 0.013	-	-	-	-
Endrin aldehyde	mg/kg dry wt	< 0.013	-	-	-	-
Endrin ketone	mg/kg dry wt	< 0.013	-	-	-	-
Heptachlor	mg/kg dry wt	< 0.013	-	-	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.013	-	-	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.013	-	-	-	-
Methoxychlor	mg/kg dry wt	< 0.013	-	-	-	-

Summary of Methods

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

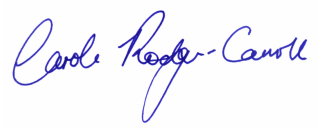
Sample Type: Soil			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-6
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric 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
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	2-3, 6
Dry Matter (Env)	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	2-3, 6

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

Testing was completed between 15-Jun-2021 and 16-Jun-2021. 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.



Carole Rodgers-Carroll BA, NZCS
Client Services Manager - Environmental