December 2007

86a Edward Street, Lincoln

LEAD DELINEATION INVESTIGATION

Submitted to:
Broadfield Estates
20 Bealey Avenue
PO Box 25 028
Christchurch

REPORT

A world of capabilities delivered locally

Golder Associates

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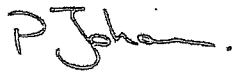
Quality Assurance

	Name	Signature
Project Manager	PHIL JOHNSON	
Approved Reviewer(s)	BRENDON LOVE	

Revision Status

Version I.D.	Revision status	Revision prepared by	Revision status notes	Date issued
077813078/11	FINAL	PHIL JOHSNON		18 DEC 07
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Report Distribution

Distributed to	Date	Number of copies
Broadfield Estates	21 DEC 07	2 bound hard copies

Disclaimer

(i). This report has been prepared for the particular purpose outlined in the project brief and no responsibility is accepted for the use of any part in other contexts or for any other purpose.

(ii). Assessments made in this report are based on the ground conditions indicated from published sources, site inspection and subsurface investigation described. Variations in ground conditions may occur between investigatory locations however and there may be special conditions appertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the report. No warranty is included, either expressed or implied, that the actual conditions will conform exactly to the assessments contained in this report.

(iii). Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility can be accepted by Golder Associates (NZ) Ltd for inaccuracies within data supplied by others.

(iv). Any comments on groundwater conditions are based on observations made at the time of investigation unless otherwise stated. It should be noted that groundwater levels vary as a result of seasonal or other effects.

(v). This report is provided for sole use by the Client and is confidential to him and his professional advisers. No responsibility whatsoever for the contents of this report will be accepted to any person other than the Client.

(vi). This Limitation should be read in conjunction with Golder Associates (NZ) Ltd's Conditions of Engagement provided separately.

Summary

Golder Associates (NZ) Limited (Golder) was commissioned to undertake soil sampling at 86a Edward Street, Lincoln. The sampling was conducted in order to delineate an area of lead contamination above the proposed land use soil quality criteria, which was previously identified during an investigation conducted by Golder in September 2007. A single soil sample collected from Paddock 18 returned results indicating concentrations of lead above the relevant land use criteria.

The objective of this additional investigation is to determine the extent of any lead contamination. The results of this investigation will be used to determine the need for site remediation or management controls to ensure that human health and the environment are protected within the proposed residential sub-division and land use of the site. It should be noted that the area identified with elevated lead is proposed to remain as an open recreational reserve area within the sub-division, rather than being developed as a residential lot where exposure pathways such as dermal contact, consumption of home grown produce and contaminated soil ingestion are more likely.

A total of five hand-dug test pits were excavated within the area surrounding the high lead concentration, with two samples taken from each location at various depths. The laboratory analysis of each sample was compared to the Australian National Environmental Protection (Assessment of Site Contamination) Measure, Schedule B(1) (NEPM, 1999) parks and recreational land use criteria and each of the ten samples recorded lead concentrations below the guideline value of 600mg/kg. Even when incorporating the previous lead concentration of 644 mg/kg, the average concentration remains below the guideline value.

The absence of significant lead concentrations within the material indicates that it is not necessary, or possible to delineate lead contamination in this area.

These results indicate that the concentration of 644 mg/kg lead from the sample collected in September 2007 was an outlier in the data set and may have been influenced by an item/material within the soil sample. This is possibly attributed to the topsoil material which is known to have been imported into this area.

Based on the laboratory analysis of the additional samples taken from Paddock 18, Golder considers that the elevated lead in this area does not represent a human health risk given the proposed recreational parkland land use in this area of the site. As such, it is recommended that the Listed Land Use Register (LLUR) status of the site should be re-assessed and updated in light of this new information. Given that the proposed sub-division is residential and the assessment of lead contamination has been made against parkland recreational land use values, the use of this area may need to be allocated as parkland/recreational on the sub-division consent to avoid future residential redevelopment.

No further work is considered necessary at the site prior to the proposed redevelopment and Golder consider that based on the investigations completed to date, and in the context of the proposed land use, that soil quality on site should not be considered to represent a human health risk.

1.0 INTRODUCTION

Golder Associates (NZ) Ltd. (Golder) has undertaken a series of ground investigations at 86a Edward Street, Lincoln (the site). The investigations were completed in order to identify any ground contamination associated with the former horticultural land use activities. Specific concerns were related to the potential for residual agrichemicals to have affected soil quality on the site. The objective of the work is to ensure protection of human health and environment within the proposed residential subdivision and land use of the site. Previous investigations at the site identified a single sample with lead concentrations in excess of the residential land use criteria. Golder was contracted by Broadfield Estates to delineate the extent of elevated lead in soil at the site.

Recent correspondence provided to Golder indicates that, as a result of the former horticultural (orchards) land use activities at the site, the site has been included by Environment Canterbury on the Listed Land Use Register (LLUR) as potentially contaminated. This correspondence is provided in Appendix A.

1.1 Site Description

The site is located on Edward Street, approximately 1 km south-east from the town centre of Lincoln, Canterbury. The legal description of the site is Lot 2 DP1401 and the approximate grid reference for the centre of the site is E2469238 N5728673 NZMG. The site location is shown in Figure 1.

The site is approximately rectangular in shape and occupies an area of approximately 27 hectares; 1.2 km at its longest point and approximately 400 m at its widest point. The topography of the site is generally flat. As part of an earlier investigation (Golder Ref. 077813078/02) the site had been divided into eighteen separate sample lots referred to as 'paddocks'. This investigation focuses on Paddock 18, where the previous investigation identified a sample with elevated lead. Paddock 18 comprises an area of flat grassland of approximately 0.2 ha. Based on anecdotal information provided by the site owner, surface soil in the area is understood to comprise imported topsoil.

1.2 Background

In July 2007, a series of field prepared composite samples were collected from each paddock across the site (Golder Ref. 077813078/02) The laboratory results of the composite samples collected during this initial investigation indicated elevated metal contamination within six former paddocks which exceeded the proposed land use criteria. Specifically lead, arsenic and copper concentrations were recorded as follows:

- Elevated Copper in Paddocks 7, 13, 15, 16, 17 & 18;
- Elevated Lead in Paddock 18;
- Elevated arsenic in Paddock 14.

The elevated concentrations were recorded in composite samples, each comprising five discrete sub-samples. In order to evaluate the composite data, the relevant guideline value was divided by five; relating to the number of sub-samples in each composite. Although the composite sampling results provided useful average concentrations of residual agrichemicals within a paddock, the composite adjusted guidelines identified some areas of elevated metal contamination in excess of the proposed land use criteria.

In light of the original results, a series of additional discrete samples were proposed by Golder in order to compare data from both the composite and discrete results and determine the accuracy of the derived average results for each individual sample lot (paddock).

This further work was undertaken in September 2007 (Golder Ref: 077813078/08) and established that copper and arsenic concentrations initially identified at the site were below the residential land use criteria when a discrete sampling technique was used. In reflection of this and the fact that the samples were collected from a cropping area where agrichemical applications would normally be consistent over a wide area, the comparison of composite adjusted land use criteria to the initial results was considered overly conservative and the composite values appear to have provided an accurate indication of the average concentration across a given paddock. With the exception of the elevated lead result, Golder concluded that no further work was required at the site and that soil quality was suitable for the proposed residential land use.

Laboratory results from a discrete sample (PAD018/05) collected from Paddock 18 (in the north-east of the site) indicated an area of elevated lead. Because this area was proposed to remain as an open recreational reserve area within the sub-division, the result was compared to and exceeded the Australian National Environmental Protection (Assessment of Site Contamination) Measure, Schedule B(1) parks and recreational land use criteria of 600 mg/kg (NEPM, 1999). This sample was collected from the south-west corner of the paddock adjacent to the access road and a surface pond (Figure 2).

The elevated lead contamination was not considered to be indicative of the entire paddock as four of the five discrete samples taken from Paddock 18 recorded lead concentrations below the adopted guideline of 600 mg/kg. However, it was necessary to establish the vertical and horizontal extent of elevated lead, and therefore additional discrete sampling was undertaken. This report documents the findings of the additional sampling.

2.0 GROUND INVESTIGATION WORKS

2.1 Soil Sampling Plan

The fieldwork was undertaken on 6 December 2007 during overcast conditions. The test pit locations were hand dug using a shovel and pick axe, with final sample collection completed using a stainless steel hand trowel.

In order to establish the vertical and horizontal extent of the elevated lead, a total of five test pits were excavated surrounding the sample location where lead contamination was initially identified. The five test pits sampled incorporated the original sample location, in addition to four further locations, each 5 m from the original sample location, thus creating a 10 m x 10 m cross. The

original test pit location was only duplicated approximately, due to the accuracy of the GPS used to dictate test pit locations. The sample layout is presented in Figure 2.

At each test pit location, two samples were taken from separate depths within pit profile (one from the surface and one from approximately 0.30 m below ground level (bgl). In each location the surface sample (Sample A) was collected from between 0.0 - 0.1 m bgl and comprised entirely imported topsoil. The silty topsoil was penetrated between 0.2 m and 0.3 m bgl and the underlying natural ground comprised sandy silt. The sample taken at depth (sample B) therefore included a degree of natural material as well as the overlying topsoil. The underlying conditions encountered are presented in Table 1.

For each sample a plastic container was filled for inorganic laboratory analysis (screening level). Between each location, the sample tools were cleaned and decontaminated, in order to minimise the potential for cross contamination.

Table 1: Encountered material

Location	Encountered material
TP01	Silty TOPSOIL. Dark brown. Frequent rounded gravels in upper 0.1m occasional fine roots throughout. Very occasional fine wood fragments throughout.
TP02	Silty TOPSOIL. Dark brown. Frequent rounded gravels in upper 0.1m occasional fine roots throughout.
TP03	Clayey silt TOPSOIL. Dark brown frequent rounded gravels occasional wood fragments.
TP04	Silty TOPSOIL. Dark brown. Frequent rounded gravels in upper 0.1m occasional fine roots throughout.
TP05	Silty TOPSOIL. Frequent root material fine to coarse (located within 2m of tree) occasional waste noted (aluminium can, fabric)

Groundwater was not encountered in the test pits during the site works.

3.0 CONTAMINATION ASSESSMENT

3.1 Selection of Assessment Criteria

Golder understands that the site owners propose to redevelop the entire site as a residential sub-division. However, it is known that this particular area of the site (Paddock 18) is not proposed for residential housing. Rather, it is understood that this area is to remain undeveloped, as open space, as shown in Figure 3. As such, the exposure pathways associated with residential land

use such as dermal contact, consumption of home grown produce and contaminated soil ingestion will not be present and exposure durations will be limited.

Given the above rationale, it is considered that a guideline value reflective of the proposed land use should be adopted. In consideration of the open space land use, the lead guideline value developed by the Australian National Environmental Protection (Assessment of Site Contamination) Measure, Schedule B(1) (NEPM, 1999) for parks and recreational land of 600 mg/kg can be used to assess the suitability of the land.

3.2 Laboratory Test Results

On account of the previous work undertaken at the site by Golder (see Section 1), each sample collected from the site was only analysed to determine the lead concentration.

The results of the laboratory analysis completed on selected soil samples are presented in Table 2. Note that sample 'A' refers to the surface sample and sample 'B' from the deeper soils. The laboratory certificates are presented in Appendix B.

Table 2: Lead concentrations (mg/kg dry weight)

Location	Lead concentration (mg/kg dry weight)
TP01A	350
TP01B	170
TP02A	260
TP02B	310
TP03A	180
TP03B	210
TP04A	240
TP04B	58
TP05A	310
TP05B	300

Comparing the results to the adopted criteria (NEPM, 1999) for parks and recreational land of 600 mg/kg, it is apparent that none of the results exceed the guideline value. This indicates that lead concentrations in excess of the adopted criteria are not present within imported topsoil or samples taken at depth from the natural soils.

3.3 Assessment

The laboratory analysis indicates that lead concentrations are not present above the adopted guideline value in any of the discrete samples collected. The maximum concentration encountered (350mg/kg) was collected from the surface sample at test pit 01 (located in approximately the same location where the original lead concentration of 644 mg/kg was encountered in September 2007).

Further, statistical evaluation of the results indicates that the average lead concentration for the five surface samples (Sample A) results is calculated as 268.8 mg/kg, which falls below the guideline value of 600mg/kg.

However, the reason for the additional work was due to the lead concentration of 644 mg/kg identified in previous work. Therefore, with this value also incorporated within the data set, the six individual recordings result in an average concentration of 330.7 mg/kg, which also falls below the threshold of 600 mg/kg. An alternative method of averaging the data, which softens the effect that a single high value will have on an otherwise uniform data set (i.e. the value of 644 mg/kg) is to calculate the median result. The median result is the value which is encountered when the data set is ordered and the middle value is taken. The median value for the data set as 285 mg/kg.

This analysis indicates that the surface lead concentrations (representing the potential pathway for future site users) do not exceed the adopted guideline value (NEPM, 1999) of 600 mg/kg for parks and recreational land. It would therefore appear that the lead concentration encountered in September 2007 represented an outlier in the data set and is not representative of the soil quality in this area (either the known imported topsoil, or the natural underlying material). The concentration of 644 mg/kg may have been influenced by a single item within the soil matrix, rather than being indicative of the soil itself. Therefore, based on these most recent results, it would appear that lead concentrations exceeding the adopted guideline value are not present within the material and therefore it is not necessary, or possible to delineate this further.

It should also be noted for reference that the acceptable lead concentration for residential land use (excluding home grown produce) cited by Cavanagh in November 2006 is a value of 650 mg/kg. Although this value is widely used for sites in Christchurch City, and accepted by Christchurch City Council, the value has not yet been accepted nationwide by MfE. Notwithstanding this, it is apparent that the data falls below this guideline and would indicate that this area of the site would be suitable for residential development.

4.0 SUMMARY AND CONCLUSIONS

A total of five hand-dug test pits were excavated from the area surrounding the elevated lead concentration previously identified, with two discrete samples collected from each location. The laboratory analytical results were compared to the (NEPM, 1999) parks and recreational land use criteria of 600 mg/kg, The results indicated that the concentrations in the five shallow and five deep collected were below this guideline value. Even when incorporating the lead concentration of 644 mg/kg identified in the previous investigation, the average concentration remains below the guideline value. The absence of significant lead concentrations within the material indicates that it is not necessary, or possible to delineate lead contamination in this area.

These results indicate that the concentration of 644 mg/kg lead from the sample collected in September 2007 was an outlier in the data set and may have been influenced by an item/material, such as a lead paint flake, within the soil sample. This is possibly attributed to the topsoil material which is known to have been imported into this area.

Based on the laboratory analysis of the additional samples taken from Paddock 18, Golder considers that the elevated lead in this area does not represent a human health risk given the proposed recreational park land use in this area of the site. As such, it is recommended that the LLUR status of the site should be re-assessed and updated in light of this new information. Given that the proposed sub-division is residential and the assessment of lead contamination has been made against parkland recreational land use values, the use of this area may need to be allocated as parkland/recreational on the sub-division consent to avoid future residential redevelopment. This could be reconsidered if the revised residential criteria (Cavangh, 2006) is approved by Selwyn District Council.

No further work is considered necessary at the site prior to the proposed redevelopment and Golder consider that based on the investigations completed to date, and in context of the proposed land use, that soil quality on site should not be considered to represent a human health risk.

5.0 REFERENCES

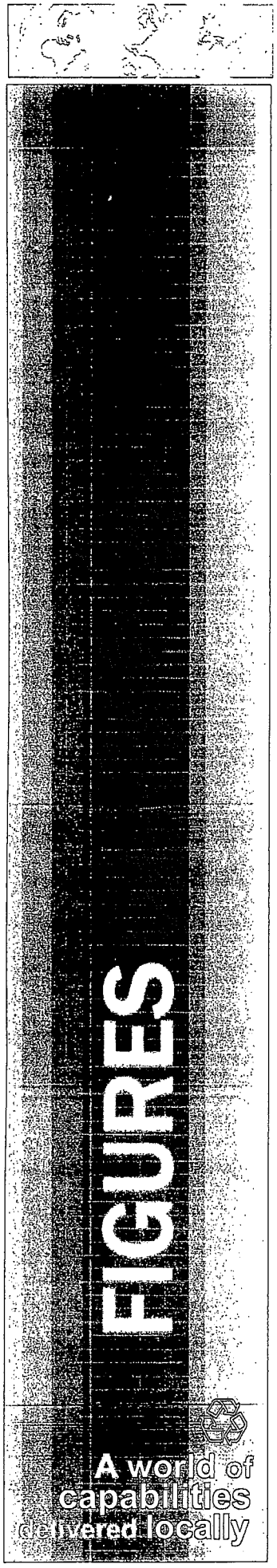
Ministry for the Environment, 2003: Contaminated Land Management Guidelines No. 5: Site Investigation and Analysis. Ministry for the Environment, Wellington.

New Zealand Geological Survey, 1959: Geological map of New Zealand (Sheet 21, Christchurch) 1:250,000 scale.

Supplemental Guidance for Developing Soil Screening Levels at Superfund Sites (US EPA, 2001)

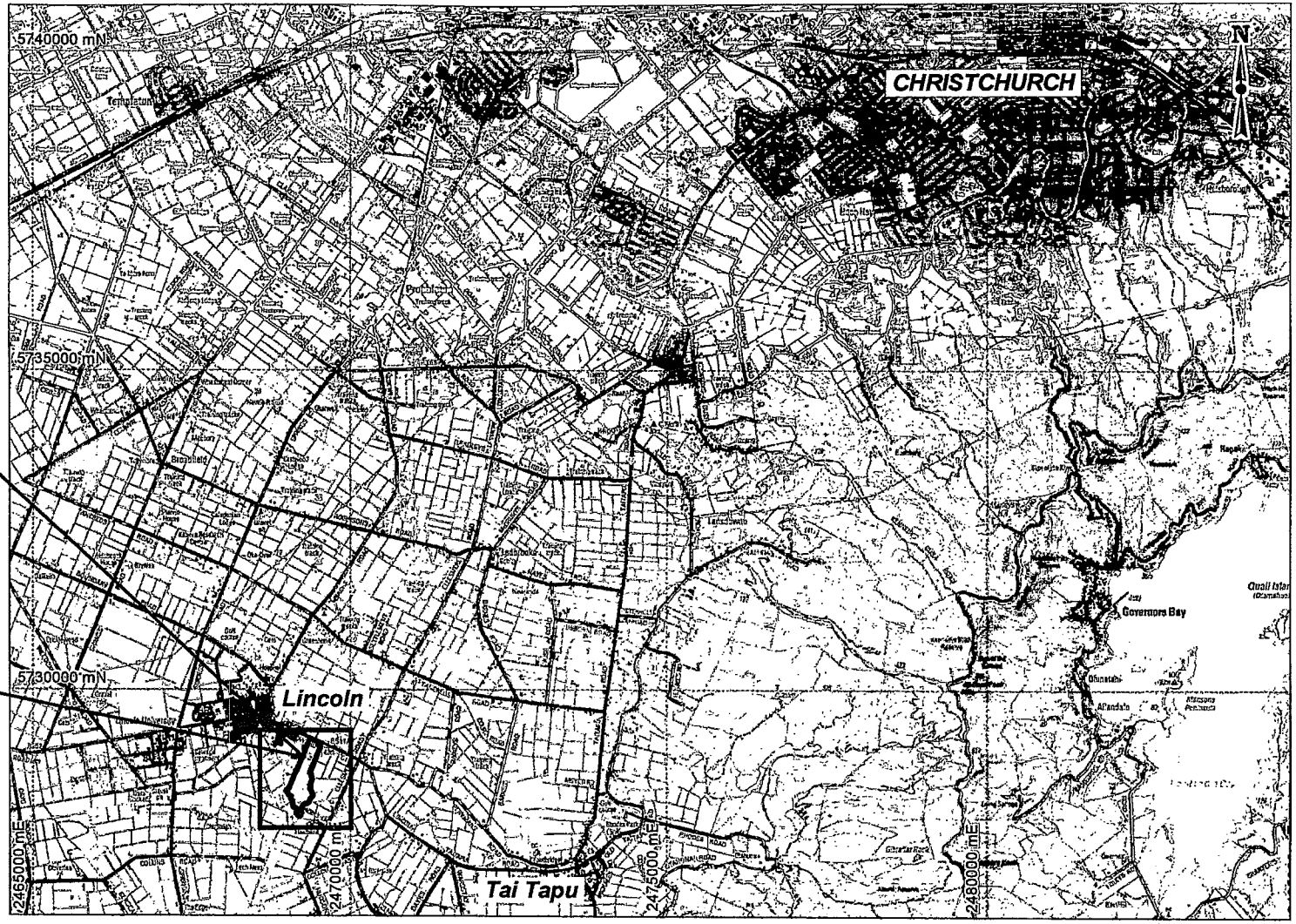
National Environment Protection Council, 1999: *Australian National Environmental Protection (Assessment of Site Contamination) Measure, Schedule B(1): Guideline on the Investigation Levels for Soil and Groundwater.* National Environment Protection Council Service Corporation, Adelaide, South Australia.

Jo-Anne E. Cavanagh, 2006: Comparison of Soil Guideline Values Used in New Zealand and Their derivations. Landcare Research New Zealand Ltd.



FIGURES

Golder Associates



Aerial photo scale 1:20 000 (Source: ECAN GIS)

1 0 1 2
kilometres

Source: Land Information New Zealand
NZMS Topographical Map
Crown Copyright Reserved

Datum: NZGD1949
Projection: NZ Map Grid

Golder Associates

CLIENT: Broadfield Estates Ltd		PROJECT: Lead Delineation Sampling 86A Edward Street, Lincoln Canterbury	
DRAWN: MCD	DATE: December 2007		
CHECKED	DATE	TITLE: SITE LOCATION	
SCALE: 1:100 000 A4	FILE: Location_R11.wor	PROJECT No: 077813078	REPORT No: R077813078/11
		VERSION No: 1	FIGURE No: 1

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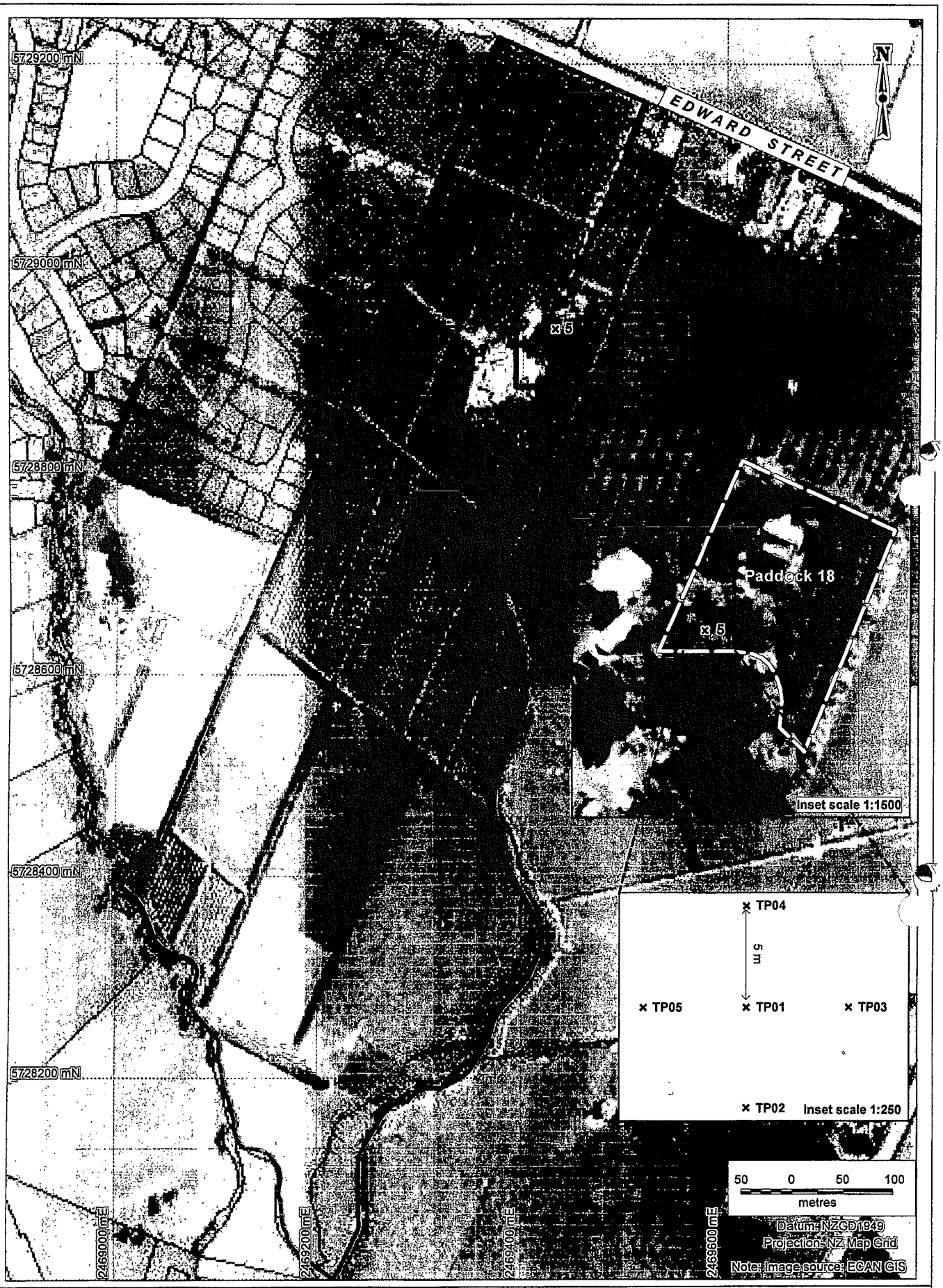

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	DRAWN: MCD	DATE: December 2007				
	CHECKED	DATE	TITLE: ADDITIONAL SAMPLE LOCATION POINTS			
	SCALE: 1:5000 A4	FILE: Samples_R11.wor	PROJECT No: 077813078	REPORT No: R077813078/11	VERSION No: 1	FIGURE No: 2

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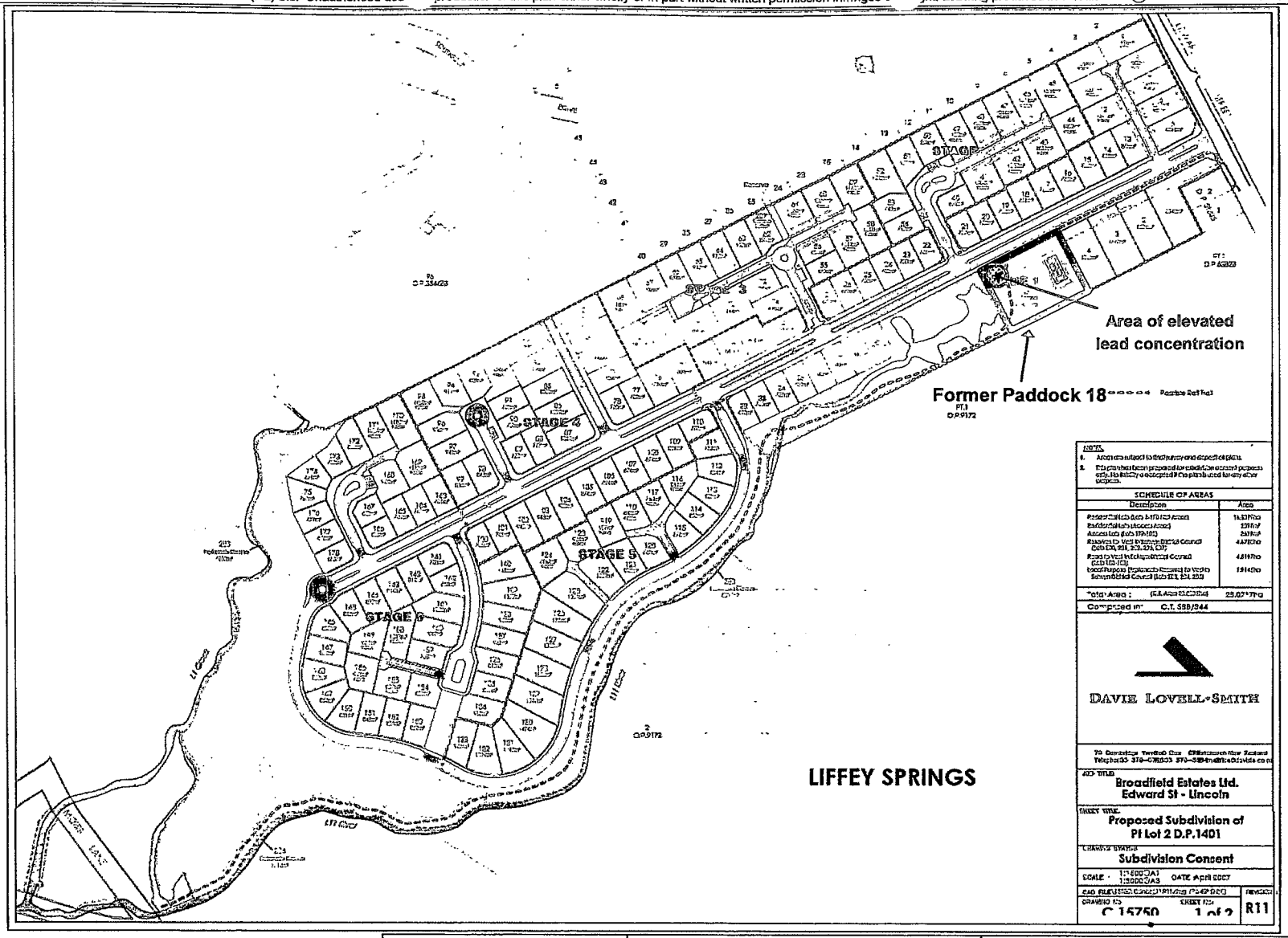

NOTE:
Proposed Development plan from
Davie Lovell-Smith, Drawing No. C.15750
Concept R11.dwg R11, April 2007

CLIENT: Broadfield Estates Ltd		PROJECT: Additional Contamination Assessment 86A Edward Street, Lincoln Canterbury	
DRAWN: MCD	DATE: December 2007		
CHECKED	DATE	TITLE: PROPOSED DEVELOPMENT	
SCALE: NTS A4	FILE: L09_PropDevt.wor	PROJECT No: 077813078	REPORT No: R077813078/11
VERSION No: 1	FIGURE No: 3		

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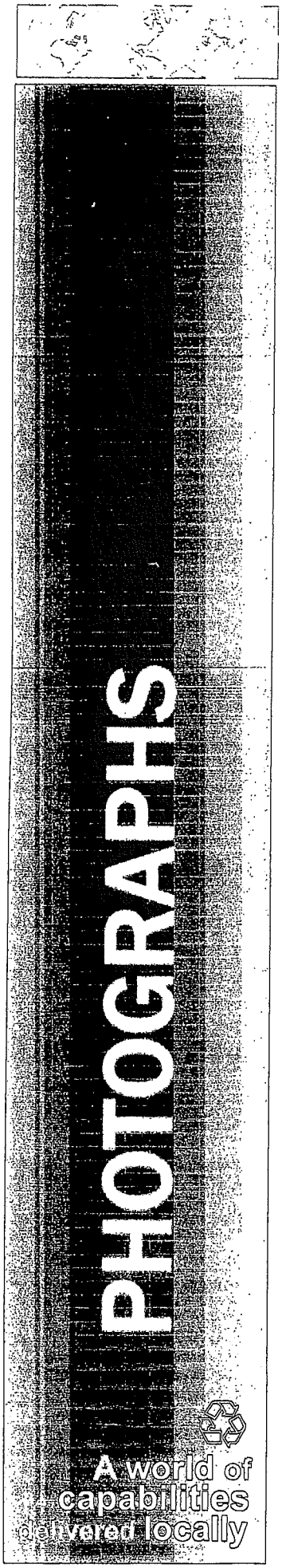
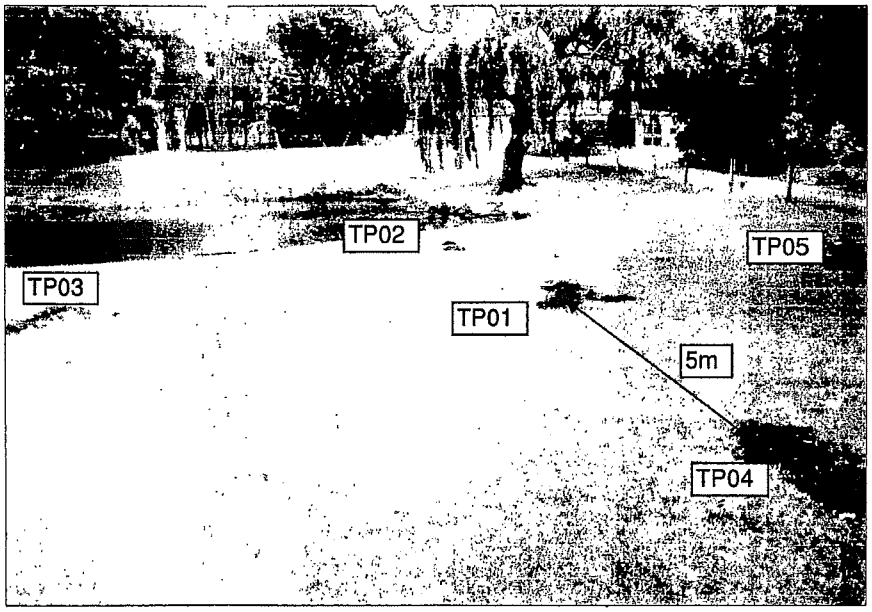


PHOTOGRAPHS

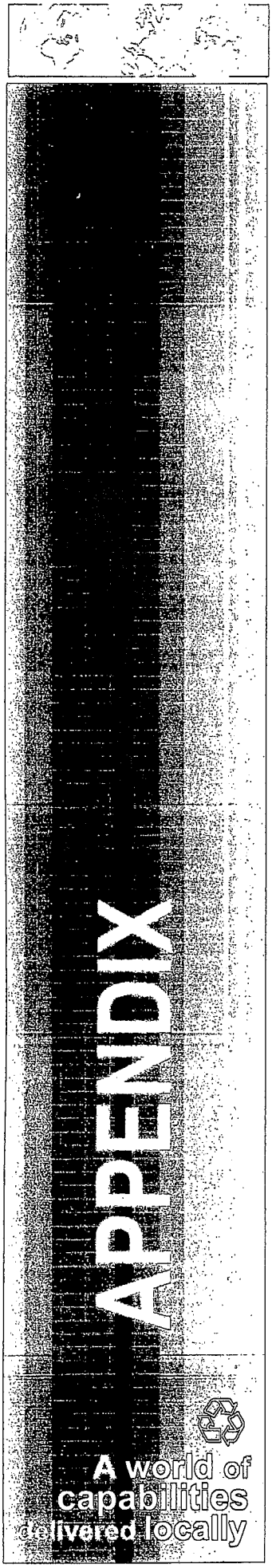
Golder Associates



Photograph 1 - layout of test pit locations

Photograph 2 - Example of excavation of test pit

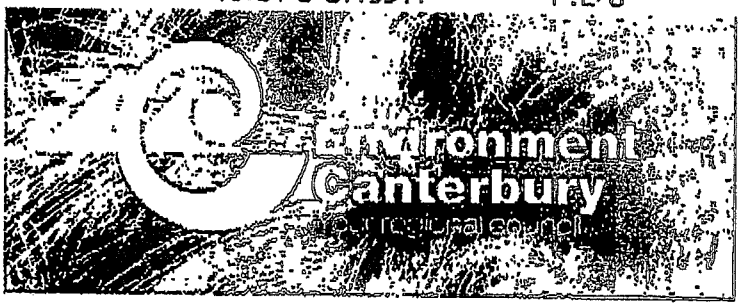
Golder Associates	TITLE	Site photographs	
	PROJECT	86A Edward Street, Lincoln	
	CLIENT	Broadfield Estates Ltd.	
	PROJECT No.	R 077813078 / 11	Photograph No 1 & 2



APPENDIX A

Copy of the Listed Land Use Register (LLUR) Notification

Golder Associates



58 Kilmore Street, PO Box 345, Christchurch 1
General enquiries: 03 365 3828 Customer services: 03 353 9007
Fax: 03 365 3194 0800 324 636
Email: ecan@ecan.govt.nz Website: www.ecan.govt.nz

27 November 2007

Broadfield Estates Ltd
C/O Hobbs & Co Ltd
P O Box 25028
Christchurch

Dear Sir/Madam

REGISTRATION OF PROPERTY ON LISTED LAND USE REGISTER

Site name: Former Lincoln Grange Orchards
Address: Edward Street, Lincoln
Legal description: Pt Lot 2 DP 1401
Register number: 3285

I am writing to advise you of Environment Canterbury's intention to include the property detailed above on the Listed Land Use Register. I understand that you are the owner of this property. Your site has been identified because the site has had hazardous substances stored, used or disposed of on it.

Environment Canterbury is identifying such sites because of the possibility that soil and water have been contaminated by hazardous substances.

Assessment of your property

Staff at Environment Canterbury have reviewed information on past and present activities on your site and have identified that it has been used for the following activity(ies) that fall(s) within the Hazardous Activities or Industries List (HAIL).

Period from	Period to	HAIL[1] land use
?	2004	Market gardens, orchards, glass houses

The HAIL is part of a national site classification system that has been developed by the Ministry for the Environment in conjunction with all regional and unitary councils.

It is proposed that your site be registered under: **Category V – Verified History of Hazardous Activity or Industry.**

Definition: A site whose past or present use has been reported and verified as one that appears on the *Hazardous Activities and Industries List* (HAIL).

[1] HAIL: The Hazardous Activities and Industries List. This list can be downloaded from the Ministry for the Environment's web page: http://www.mfe.govt.nz/issues/hazardous/contaminated/guidelines.html. Alternatively, contact Environment Canterbury to be sent a copy.

Our Ref: IN7C/104-1 - SN 3285
Your Ref:
Contact: Ognjen Mojsilovic
ognjen.mojsilovic@ecan.govt.nz

This category is for sites for which it is known that an activity or use as defined in the HAIL has taken place on the site, but there is insufficient information to characterise any risks to human health or the environment from those activities undertaken on the site. Contamination may have occurred, but should not be assumed to have occurred.

This category captures sites where there is only information about the activities undertaken on the site, but no analytical information available because no investigation has been carried out.

Opportunity for input

Before including your property on the Register, we would like to offer you the opportunity to review, correct or clarify the information we currently hold. This is most effectively done if you check the details on the attached **Site Details Sheet** and **Site Map** and return them both to us. Any other information you can provide about your property would be appreciated.

Even if all the information is correct, please indicate this and return it to us **by 16 January 2008.** If relevant, please mark on the map where hazardous substances are used or stored (for example, the location of any underground or above-ground storage tanks, dangerous goods stores etc).

I have attached an information sheet that explains more about the Listed Land Use Register.

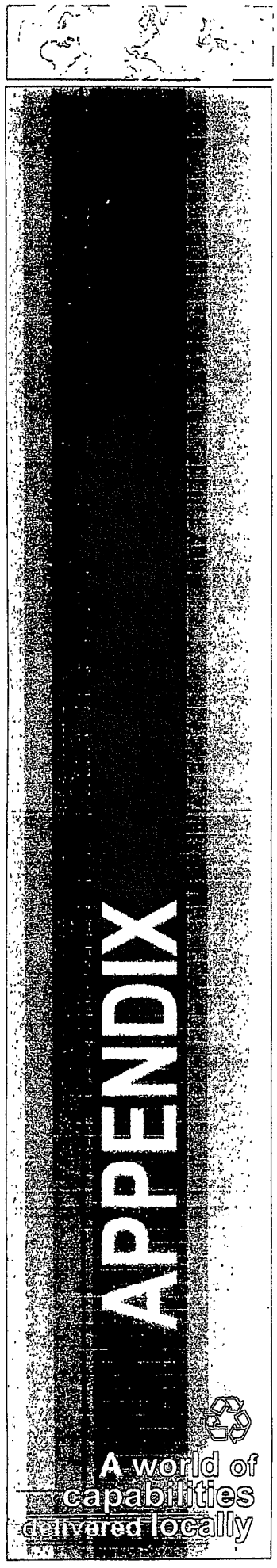
The records of your site can be updated at any time if extra information is provided to Environment Canterbury. Please contact me if you would like to discuss what type of information would be useful. Once your site is registered, we will use the data to respond to any information requests we receive relating to your property. Requests are usually received from those interested in purchasing a property.

If you would like more information I will be pleased to help in any way I can.

Yours faithfully

Ognjen Mojsilovic
CONTAMINATED SITES OFFICER

Encl.
- Listed Land Use Register Information Sheet
- Site Details Sheet
- Site Map



APPENDIX B

Hills Laboratory Certificates

Golder Associates

Hill Laboratories
A WORLD LEADER IN ANALYTICAL SERVICES

R J Hill Laboratories Limited
28 Clyde Street
Private Bag 3205
Hamilton 3240, New Zealand

Tel +64 7 858 2000
Fax +64 7 858 2001
Email mail@hill-labs.co.nz
Web www.hill-labs.co.nz

ANALYSIS REPORT

Client:	Golder Associates (NZ) Ltd	**Lab No:**	622420 SPv1
Contact:	Johnson, Philip	**Date Registered:**	07-Dec-2007
	c/o Golder Associates (NZ) Ltd	**Date Reported:**	12-Dec-2007
	P O Box 2281	**Quote No:**	
	CHRISTCHURCH	**Order No:**	
		Client Reference:	0778/3078
		Submitted By:	Johnson, Philip

Sample Type: Soil

	Sample Name:	01805/01 A 06-Dec-2007	01805/01 B 06-Dec-2007	01805/02 A 06-Dec-2007	01805/02 B 06-Dec-2007	01805/03 A 06-Dec-2007
	Lab Number:	622420.1	622420.2	622420.3	622420.4	622420.5
Total Recoverable Lead	mg/kg dry wt	350	170	260	310	180

	Sample Name:	01805/03 B 06-Dec-2007	01805/04 A 06-Dec-2007	01805/04 B 06-Dec-2007	01805/05 A 06-Dec-2007	01805/05 B 06-Dec-2007
	Lab Number:	622420.6	622420.7	622420.8	622420.9	622420.10
Total Recoverable Lead	mg/kg dry wt	210	240	58	310	300

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 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.

Sample Type: Soil

Test	Method Description	Default Detection Limit	Samples
Environmental Solids Sample Preparation*	Air dried at 35°C and sieved, <2mm fraction.	-	1-10
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2	-	1-10
Total Recoverable Lead	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2	0.40 mg/kg dry wt	1-10

These samples were collected by yourselves (or your agent) 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 client.

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

At Golder Associates we strive to be the most respected global group specialising in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organisational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from office located throughout Africa, Asia, Australasia, Europe, North America and South America.

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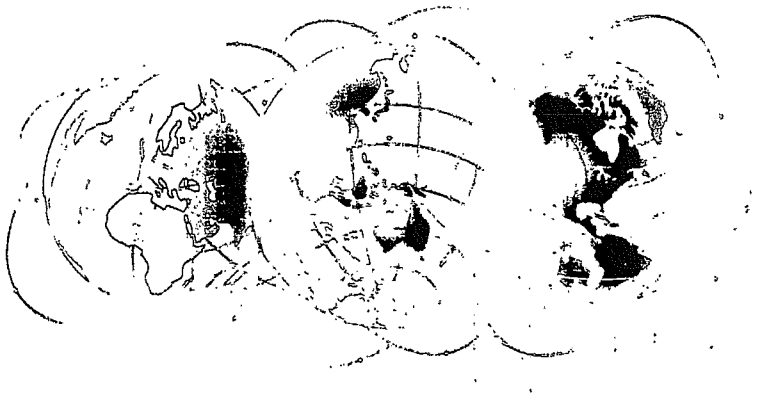

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