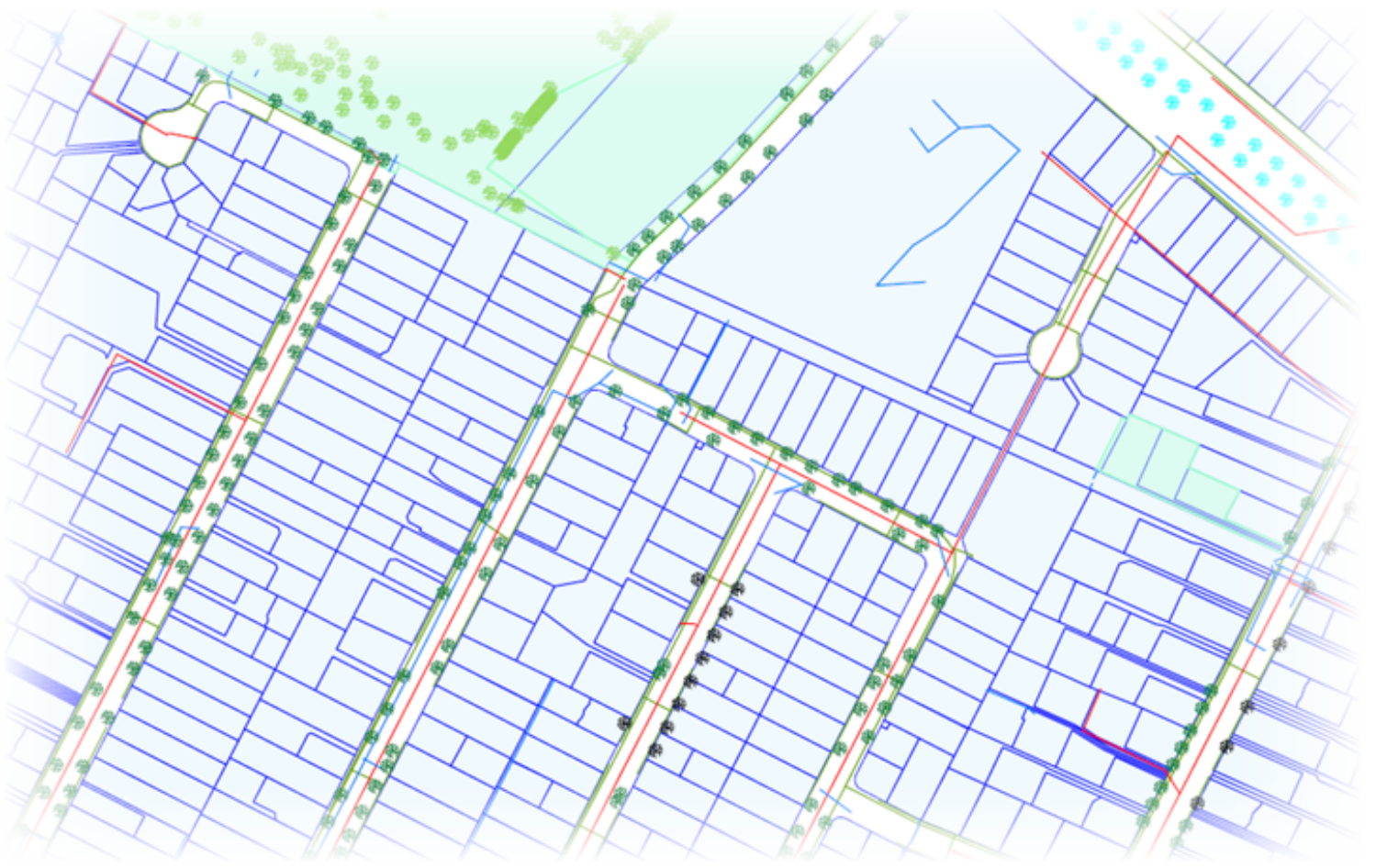


Land Information Memorandum



Property address:
1 Teal Close

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Christchurch City Council
53 Hereford Street, PO Box 73015
Christchurch 8154, New Zealand
Tel 64 3 941 8999
Fax 64 3 941 8984
www.ccc.govt.nz

Application details

Please supply to HOLMWOOD REAL ESTATE LIMITED -
397 ILAM ROAD
BRYNDWR
CHRISTCHURCH 8053

Client reference BROWN AND AT

Phone number 03 355 6677

Fax number (03) 355 6678

Date issued 21 May 2020

Date received 15 May 2020

Property details

Property address 1 Teal Close

Valuation roll number 22460 57700

Valuation information Capital Value: \$610000
Land Value: \$155000
Improvements Value: \$455000
Please note: these values are intended for Rating purposes

Legal description Lot 70 DP 74803

Existing owner Raymond Leslie Brown
Carolyn Ellen Atger
1 Teal Close
Christchurch 8023

Council references

Debtor number 3349075

Rate account ID 73076529

LIM number 70231759

Property ID 1077806

Document information

This Land Information Memorandum (LIM) has been prepared for the purpose of section 44A of the Local Government Official Information and Meetings Act 1987 (LGOIMA). It is a summary of the information that we hold on the property. Each heading or "clause" in this LIM corresponds to a part of section 44A.

Sections 1 to 10 contain all of the information known to the Christchurch City Council that must be included under section 44A(2) LGOIMA. Any other information concerning the land as the Council considers, at its discretion, to be relevant is included at section 11 of this LIM (section 44A(3) LGOIMA).

The information included in this LIM is based on a search of Council records only and there may be other information relating to the land which is unknown to the Council. Council records may not show illegal or unauthorised building or works on the property. The applicant is solely responsible for ensuring that the land is suitable for a particular purpose.

If there are no comments or information provided in any section of this LIM this means that the Council does not hold information on the property that corresponds to that part of section 44A.

A LIM is only valid at the date of issue as information is based only upon information the Council held at the time of that LIM request being made.

Property file service

This Land Information Memorandum does not contain all information held on a property file. Customers may request property files by phoning the Council's Customer Call Centre on (03) 941 8999, or visiting any of the Council Service Centres. For further information please visit www.ccc.govt.nz.

To enable the Council to measure the accuracy of this LIM document based on our current records, we would appreciate your response should you find any information contained therein which may be considered to be incorrect or omitted. Please telephone the Customer Call Centre on (03) 941 8999.

A search of records held by the Council has revealed the following information:

1. Special features and characteristics of the land

Section 44A(2)(a) LGOIMA. This is information known to the Council but not apparent from the district scheme under the Town and Country Planning Act 1977 or a district plan under the Resource Management Act 1991. It identifies each (if any) special feature or characteristic of the land concerned, including but not limited to potential erosion, avulsion, falling debris, subsidence, slippage, alluvion, or inundation, or likely presence of hazardous contaminants.

(For enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

ECan Liquefaction Assessment

ECan holds indicative information on liquefaction hazard in the Christchurch area. Information on liquefaction can be found on the ECan website at www.ecan.govt.nz/liq or by calling ECan customer services on Ph 03 353 9007. The Christchurch City Council may require site-specific investigations before granting future subdivision or building consent for the property, depending on the liquefaction potential of the area that the property is in.

Borelog/Engineer Report Image Available

Borelog/Engineer Report Image Available

Consultant Report Available

Land Information New Zealand (LINZ) engaged Tonkin and Taylor to provide a Geotechnical Report on Ground Movements that occurred as a result of the Canterbury Earthquake Sequence. The report indicates this property may have been effected by a degree of earthquake induced subsidence. The report obtained by LINZ can be accessed on their website at <https://www.linz.govt.nz/land/surveying/earthquakes/canterbury-earthquakes/information-for-canterbury-surveyors>

Coastal Hazard Inundation

The Council has a report, Coastal Hazard Assessment for Christchurch and Banks Peninsula (2017), that indicates this property or part of this property may be susceptible to coastal inundation (flooding by the sea). The 2017 report considers four sea level rise scenarios through to the year 2120. A copy of the 2017 report and other coastal hazard information can be found at www.ccc.govt.nz/coastalhazards.

Fill

This property is located in an area known to have been filled. The year the fill occurred is Unknown. The filling was, according to the Council's records carried out in a controlled manner and comprises Engineered Fill.

Distant Source Tsunami - Area of Potential Inundation

This property may be affected by flooding by some tsunami scenarios as shown in reports by GNS and NIWA commissioned by ECan and CCC. Links to reports can be found at <https://ccc.govt.nz/tsunami-evacuation-zones-and-routes/> and on ECan's web site <https://www.ecan.govt.nz> by searching for the terms tsunami hazard.

Related information

There is attached a soil investigation report for this property.

2. Private and public stormwater and sewerage drains

Section 44A(2)(b) LGOIMA. This is information about private and public stormwater and sewerage drains as shown in the Council's records.

(For stormwater and sewerage enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

Related information

- | The drainage works associated with this property have not been plotted on the Council's drainage plan. A copy of the field Inspectors pickup/approved site plan showing the drains and house outline is attached.
- | The dwelling/building is shown to be served by a sewer drain and a stormwater drain.
- | As of 6 April 2020 Council has changed the colours in our system from blue to green for storm water & from green to blue for water supply pipelines. For old mapped properties and as built drainage plans done before April 2020 these may show the colour of blue for storm water pipelines

3. Drinking Water Supply

Section 44A(2)(ba) and (bb) LGOIMA. This is information notified to the Council about whether the land is supplied with drinking water, whether the supplier is the owner of the land or a networked supplier, any conditions that are applicable, and any information the Council has about the supply.

Please note the council does not guarantee a particular water quality to its customers. If you require information on current water quality at this property please contact the Three Waters & Waste Unit.

(For water supply queries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

Water Supply

Christchurch City Council is the networked supplier of water to this property. This property is connected to the Christchurch City Council Water Supply. The conditions of supply are set out in the Christchurch City Council Water Supply, Wastewater & Stormwater Bylaw (2014), refer to www.ccc.govt.nz.

4. Rates

Section 44A(2)(c) LGOIMA. This is information on any rates owing in relation to the land.

(For rates enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

(a) Annual rates

Annual rates to 30/06/2020: \$ 3,713.49

	Instalment Amount	Date Due
Instalment 1	\$ 928.31	15/09/2019
Instalment 2	\$ 928.31	15/12/2019
Instalment 3	\$ 928.31	15/03/2020
Instalment 4	\$ 928.56	15/06/2020

Rates owing as at 21/05/2020: \$ 310.81

(b) Excess water charges

\$ 0.00

(For water charge enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

(c) Final water meter reading required?

No Reading Required

(To arrange a final water meter reading, please phone (03) 941 8999 or visit www.ccc.govt.nz.

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5. Consents, certificates, notices, orders, or requisitions affecting the land and buildings

Section 44A(2)(d) LGOIMA. This is information concerning any consent, certificate, notice, order, or requisition, affecting the land or any building on the land, previously issued by the Council. The information in this section may also cover building consent and/or code compliance information issued by building certifiers under the Building Act 1991 and building consent authorities that are not the Council under the Building Act 2004.

You can check the property file to identify whether any consent or certificate was issued by a building certifier under the Building Act 1991.

Section 44A(2)(da) LGOIMA. The information required to be provided to a territorial authority under section 362T(2) of the Building Act 2004. There is currently no information required to be provided by a building contractor to a territorial authority under section 362T(2) of the Building Act 2004. The Building (Residential Consumer Rights and Remedies) Regulations 2014 only prescribed the information that must be given to the clients of a building contractor.

(For building enquiries, please phone (03) 941 8999, email EPADutyBCO@ccc.govt.nz or visit www.ccc.govt.nz.

(a) Consents

- | BCN/1997/607 Applied: 03/02/1997 Status: Completed
1 Teal Close Woolston
Accepted for processing 03/02/1997
Building consent granted 11/04/1997
Building consent issued 14/04/1997
Code Compliance Certificate Granted 01/08/1997
Code Compliance Certificate Issued 01/08/1997
Dwelling with attached garage housing/ single detached dwelling outbuilding/ attached garage- Historical Reference CON97000660
- | BCN/2013/3529 Applied: 13/05/2013 Status: Completed
1 Teal Close Woolston
Accepted for processing 13/05/2013
PIM Granted 11/07/2013
PIM Issued 16/07/2013
RESIDENTIAL 4 BEDROOM WITH AN ATTACHED GARAGE- Historical Reference ABA10125275
- | BCN/2013/5460 Applied: 05/06/2013 Status: Completed
1 Teal Close Woolston
Accepted for processing 08/06/2013
Building consent granted 13/08/2013
Building consent issued 14/08/2013
Code Compliance Certificate Issued 04/12/2014
Residential 4 bedroom dwelling with attached garage.

(b) Certificates

Note: Code Compliance Certificates were only issued by the Christchurch City Council since January 1993.

(c) Notices

| Ministry of Business, Innovation & Employment Foundation Design

Some properties have experienced land damage and considerable settlement during the sequence of Canterbury earthquakes. While land in the green zone is still generally considered suitable for residential construction, houses in some areas will need more robust foundations or site foundation design where foundation repairs or rebuilding are required. Most properties have been assigned a technical category. Details of the MBIE guidance can be found at www.building.govt.nz/

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- | Placards issued under the Civil Defence Emergency Management Act 2002 as a result of the 4 September 2010 and 22 February 2011 earthquakes have now expired (by 12 July 2011 if not before). Some civil defence placards were replaced with dangerous building notices issued under section 124 Building Act 2004, and where this has happened the section 124 notice is separately recorded. Many other buildings, although not issued with a section 124 notice, may require structural work or other repairs before they can be occupied again. It is the building owners responsibility to make sure the building is safe for any occupier or visitor. Detailed structural engineering assessments may still be required to be carried out.
- | CDB75075928 04/03/2011
Building Evaluation : Building Inspected Under Civil Defence Emergency , Green Placard Issued (a deemed Building Act notice)

(d) Orders

(e) Requisitions

Related information

- | Please find an electrical & gas fitters certificates attached relating to works that have been carried out on the current building/dwelling at this address.

6. Certificates issued by a building certifier

Section 44A(2)(e) LGOIMA. This is information notified to the Council concerning any certificate issued by a building certifier pursuant to the Building Act 1991 or the Building Act 2004.

(For building enquiries, please phone (03) 941 8999, email EPADutyBCO@ccc.govt.nz or visit www.ccc.govt.nz.

7. Weathertightness

Section 44A(2)(ea) LGOIMA. This is information notified to the Council under section 124 of the Weathertight Homes Resolution Services Act 2006.

(For weathertight homes enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

If there is no information below this means Council is unaware of any formal Weathertight Homes Resolution Services claim lodged against this property.

8. Land use and conditions

Section 44A(2)(f) LGOIMA. This is information relating to the use to which the land may be put and conditions attached to that use. The planning information provided below is not exhaustive and reference to the Christchurch District Plan and any notified proposed changes to that plan is recommended: <https://ccc.govt.nz/the-council/plans-strategies-policies-and-bylaws/plans/christchurch-district-plan/>.

There may be some provisions of the Christchurch City Plan or Banks Peninsula District Plan that affect this property that are still operative.

(For planning queries, please phone (03) 941 8999, email DutyPlanner@ccc.govt.nz or visit www.ccc.govt.nz.

Regional plan or bylaw

There may be objectives, policies or rules in a regional plan or a regional bylaw that regulate land use and activities on this site. Please direct enquiries to Canterbury Regional Council (Environment Canterbury).

(a) (i) Christchurch City Plan & Banks Peninsula District Plan

(ii) Christchurch District Plan

Liquefaction Management Area (LMA)

Property or part of property within the Liquefaction Management Area (LMA) Overlay which is operative.

Flood Management Area

Property or part of property within the Flood Management Area (FMA) Overlay which is operative.

Fixed Minimum Floor Overlay

This property or parts of the property are located within the Fixed Minimum Floor Overlay level in the Christchurch District Plan. Under this plan pre-set minimum floor level requirements apply to new buildings and additions to existing buildings. The fixed minimum floor level can be searched at <http://ccc.govt.nz/floorlevelmap>. For more information please contact a CCC duty planner on 941 8999.

District Plan Zone

Property or part of property within the Residential Suburban Zone which is operative.

(b) Resource consents

If there are any land use resource consents issued for this property the Council recommends that you check those resource consents on the property file. There may be conditions attached to those resource consents for the property that are still required to be complied with.

- ┆ RMA/1994/2270 - Subdivision Consent
Fee Simple SUBDIVISION - Historical Reference RMA13258
Status: Processing complete
Applied 23/12/1994

Land Information Memorandum

- I RMA/1995/5536 - Subdivision Consent
- Fee Simple SUBDIVISION - Historical Reference RMA9530
- Status: Processing complete
- Applied 22/12/1995

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www.ccc.govt.nz

9. Other land and building classifications

Section 44A(2)(g) LGOIMA. This is information notified to the Council by any statutory organisation having the power to classify land or buildings for any purpose.

(For land and building enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

Please refer to Section 1 for details

10. Network utility information

Section 44A(2)(h) LGOIMA. This is information notified to the Council by any network utility operator pursuant to the Building Act 1991 or the Building Act 2004.

(For network enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

! **None recorded for this property**

11. Other information

Section 44A(3) LGOIMA. This is information concerning the land that the Council has the discretion to include if it considers it to be relevant.

(For any enquiries, please phone (03) 941 8999 or visit www.ccc.govt.nz.

(a) Kerbside waste collection

- | Your recycling is collected Fortnightly on the Week 1 collection cycle on a Monday. Please leave your recycling at the Kerbside by 6:00 a.m. Your nearest recycling depot is the Metro Place EcoDrop.
- | Your refuse is collected Fortnightly on the Week 1 collection cycle on a Monday. Please leave your rubbish at the Kerbside by 6:00 a.m. Your nearest rubbish depot is the Metro Place EcoDrop.
- | Your organics are collected Weekly on Monday. Please leave your organics at the Kerbside by 6:00 a.m.

(b) Other

| Community Board

Property located in Linwood-Central-Heathcote Community Board.

| Guest Accommodation

Guest accommodation (including whole unit listings on Airbnb; BookaBach; etc.) generally requires a resource consent in this zone when the owner is not residing on the site. For more information, please refer to: <https://ccc.govt.nz/providing-guest-accommodation/>.

| Tsunami Evacuation Zone

This property is in the orange tsunami evacuation zone, and should be evacuated immediately after a long or strong earthquake, or when told to by an official civil defence warning. Residents should make a plan for where they would go in a tsunami evacuation and stay out of this zone until told it is safe to go back. More information can be found at <https://ccc.govt.nz/services/civil-defence/hazards/tsunami-evacuation-zones-and-routes/>

| Electoral Ward

Property located in Heathcote Electoral Ward

| Listed Land Use Register

Hazardous activities and industries involve the use, storage or disposal of hazardous substances. These substances can sometimes contaminate the soil. Environment Canterbury identifies land that is used or has been used for hazardous activities and industries. This information is held on a publically available database called the Listed Land Use Register (LLUR). The Christchurch City Council may not hold information that is held on the LLUR. Therefore, it is recommended that you check Environment Canterbury's online database at www.llur.ecan.govt.nz

| Spatial Query Report

A copy of the spatial query report is attached at the end of this LIM. The spatial query report lists land use resource consents that have been granted within 100 metres of this property.

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Christchurch City Council
53 Hereford Street, PO Box 73015
Christchurch 8154, New Zealand
Tel 64 3 941 8999
Fax 64 3 941 8984
www.ccc.govt.nz

TOWER Insurance Limited
C/- Stream Group NZ
66 Mandeville Street
Riccarton
Christchurch 8011

03 October 2012

Attention: Martin Eagle

STAGE 2 GEOTECHNICAL REPORT ON PROPOSED NEW RESIDENTIAL RESIDENCE AT 1 TEAL CLOSE IN WOOLSTON, CHRISTCHURCH

Coffey Project No: GENZCHRI15392ID
Stream Claim No.: C16119
Tower Claim No.: 40795446

This report presents the results of a geotechnical investigation, liquefaction hazard assessment and foundation options assessment carried out by Coffey Geotechnics (NZ) Limited for 1 Teal Close, Woolson, Christchurch.

If you have queries or you require further clarification on any aspects of this report, please do not hesitate to contact the undersigned.

For and on behalf of Coffey Geotechnics (NZ) Limited



Jamie McNeill

Christchurch Office Manager
Associate Engineering Geologist
E: jamie_mcneill@coffey.com
T: 03 3438 241, M: 021 872 558

Distribution:	Stream Group NZ	1 Copy (electronic)
	Coffey Geotechnics Archives	1 Copy

Coffey Geotechnics (NZ) Limited
ATCANZ Building, 10 De Havilland Way, Christchurch 8053, New Zealand
PO Box 1872 Christchurch 8140 New Zealand
T (+64)(3) 374 9600 F (+64) (3) 374 9601
www.coffey.com/geotechnics

EXECUTIVE SUMMARY

Site Summary

Mapped DBH Residential Foundation Technical Category	TC3
Coffey DBH Residential Foundation Technical Category assessment	TC2/TC3 Hybrid
NZS 1170.5 site subsoil class	Class D

Proposed Foundation Type

Global lateral movement category (ULS)	Minor
Lateral stretch category (ULS)	Minor
Vertical settlement at SLS	20mm
Vertical settlement at ULS	140mm
Proposed Foundation Type	Code Compliant solution
Floor type; Timber <i>Superstructure: Single-storey dwelling with light construction only.</i>	TC3 Type 1 Surface Structure or TC3 Type 2A Surface Structure
Floor type: Concrete <i>Superstructure: Single-storey dwelling with lightweight roof and lightweight or heavyweight cladding.</i>	Hybrid TC2/TC3 Foundation
Foundation design parameters	<i>Refer to report text</i>

This report has been prepared generally in accordance with the Department of Building and Housing (DBH) Guidance (November 2011, April 2012).

The DBH states that '*the guidance provides design solutions and methods that aim to substantially improve the performance of house foundations in future seismic events, recognising that the land performance may still induce deformations and loads that could cause some damage*'¹.

¹ Department of Building and Housing. (27 April 2012). *Interim guidance for repairing and rebuilding foundations in Technical Category 3* (Appendix C to the Guidance Document: Revised guidance on repairing and rebuilding houses affected by the Canterbury earthquake sequence). Wellington, New Zealand.

1 INTRODUCTION

Coffey Geotechnics (NZ) Ltd has been instructed by Stream Group NZ, on behalf of Tower Insurance Ltd, to carry out a geotechnical investigation and provide foundation option advice relating to the replacement of the former residential dwelling at 1 Teal Close, Woolston, Christchurch.

The purpose of our work was to evaluate the site surface and subsurface geological conditions, provide an opinion of the extent and causes of the damage to the site and structures, and provide geotechnical recommendations for new foundations as outlined in the Department of Building and Housing (DBH) Guidance documents.

2 SCOPE OF WORK

An investigation methodology for the property has been specifically designed for the issues present at the site, and the particular constraints the site poses, as outlined below:

- Geotechnical desk study;
- Geotechnical site walkover survey;
- Shallow and deep ground investigation; and
- Geotechnical analyses and reporting.

Findings from the desk study and site walkover have been considered and accommodated in the preparation of this report.

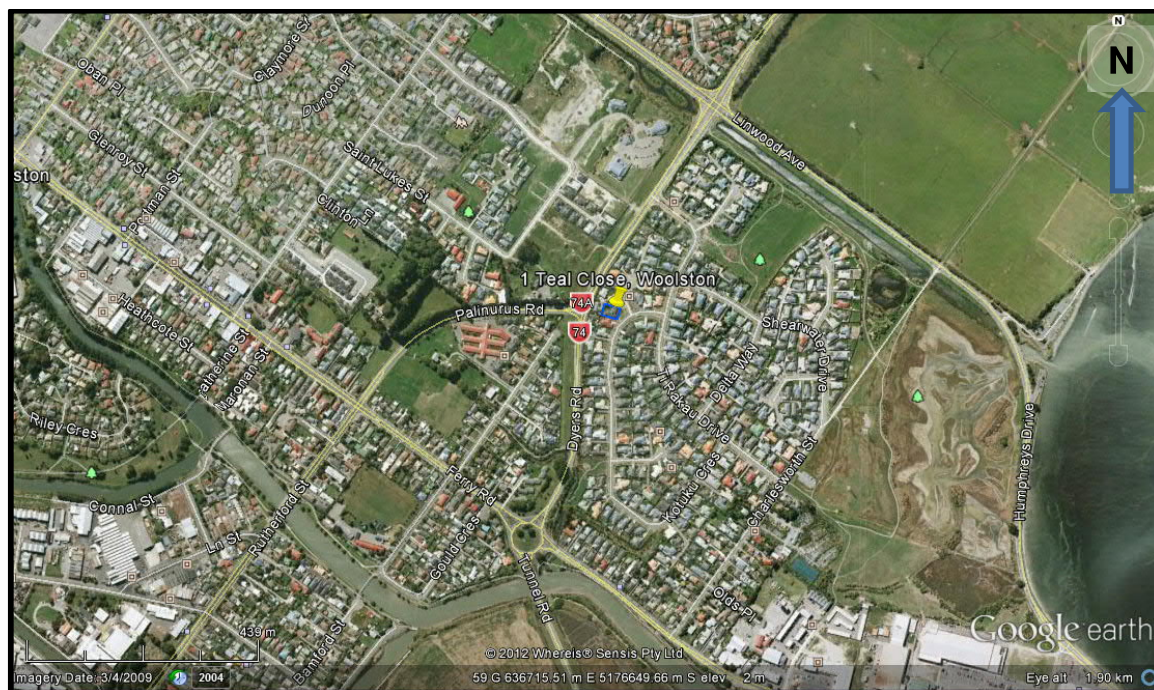
Stream has advised us the dwelling is to be rebuilt.

3 SITE DETAILS

3.1 Site Description

The site is located in the east Christchurch suburb of Woolston, approximately 5 kilometres (km) southeast from the city centre. The site is located in the east corner of the intersection of Teal Close and Totuku Crescent and is approximately 550 metres (m) north of the Heathcote River.

The existing single-storey timber-frame dwelling has been constructed with brick cladding and a light iron roof. Foundations comprise concrete slab on grade. An attached double garage is located in the southeast corner of the house. The front of the house is facing southeast where the rear towards north and northwest. The site location is provided on Figure 1.

Figure 1 Site location plan (scale as shown)

The Heathcote River is located approximately 550m south of the site and a small watercourse is approximately 400m northeast (N33°) of the site.

3.2 DBH Land Zoning

The site is located in the Department of Building and Housing (DBH) Residential Foundation Technical Category TC3.

3.3 Geological Setting

The geological map² of the area indicates that the surface geology at the site comprises 'sand and silt overbank deposits' of the Yaldhurst Member of the Springston Formation.

Geological map memoirs³ indicate the depth to Riccarton Gravel to be in the order of 20 to 25mbgl.

3.4 Ground Motion

Indicative peak ground acceleration (PGA) contour maps indicate the site experienced around 0.25g during the September 2010 earthquake and 0.7g in the February 2011 earthquake. We have adopted these values for the liquefaction analyses.

3.5 Performance of Existing Dwelling / Foundation System

Based on our desk study and site walkover, it is our opinion that the site was subject to earthquake-induced ground deformation and damage primarily as a result of the M_w6.3 Earthquake on 22 February 2011. This has resulted in the ejection of sand and silt, and undulating ground all around the site but most significantly in the northern corner. Level differentials up to 54mm were recorded within the house⁴.

² GNS Science. (1992). *Geology of the Christchurch Urban area*. Lower Hutt, New Zealand: L.J. Brown, & J.H. Weeber

³ GNS Science. (1992). *Geology of the Christchurch Urban area*. (Figure 70, pp. 83). Lower Hutt, New Zealand: L.J. Brown, & J.H. Weeber.

⁴ A quote from Relevel, dated 06/12/2011 (available in Build Assist).

3.6 Proposed Development

Stream has advised us that the house is to be rebuilt at its current location at the site. The available concept plans of the house indicate that a similar dwelling will be constructed at the site, i.e., a single-storey with brick veneer and iron roof with an attached garage. We have provided herein options for both timber floor and concrete floor construction.

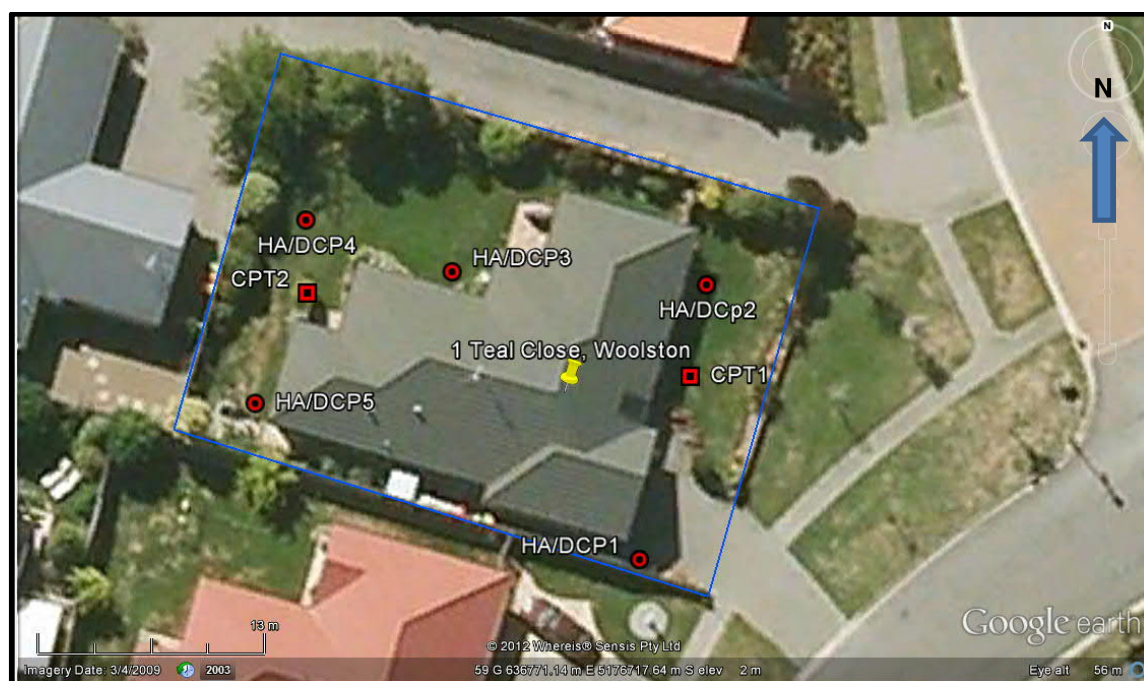
4 FIELDWORK SUMMARY

4.1 Ground Investigation

Coffey Geotechnics carried out a shallow ground investigation on 16 August 2012 comprising 5 hand auger boreholes, to a maximum depth of 3 metres below ground level (mbgl) and five dynamic cone penetrometer tests (DCPs) to a maximum depth of 3mbgl. Hand augers HA1 and HA2 reached 3mbgl but HA3, HA4 and HA5 refused at 1, 1.8 and 1.2mbgl respectively. The hand-augured boreholes refused at shallow depth due to collapse of the boreholes, most likely on account of saturated sands.

A deep ground investigation comprising two piezocone penetrometer tests (CPTu) was carried out on 24 August 2012 by Perry Geotech Limited using a modular portable penetrometer. CPT1 reached 15.5mbgl and CPT2 15.1mbgl. The locations of the tests are shown below on Figure 2.

Figure 2 Ground investigation location plan (scale as shown)



4.2 Ground Conditions

The ground conditions encountered during the investigation have been interpreted from the shallow hand-augured boreholes and CPTu signatures. The ground investigation confirmed that the site conditions are consistent with the published geological information.

A cross section across the site from northwest to southeast, that includes subsurface geological information interpreted from both CPTu signatures and extrapolated geological information from HA4

and HA3, has been prepared to understand the subsurface geological condition. A summary of the findings is presented in Table 1 below.

Table 1 Ground condition summary based on CPT signatures and hand-auger borehole logs

Description	CPT data Typical q_c (MPa)	Depth to bottom of layer (mbgl)
Topsoil	n/a	0.2 to 0.3
Sand and silty SAND with coarse gravel. Medium dense to dense (Fill material).	5 to 10	0.5 to 0.8
Fine sandy SILT and CLAY; greyish blue.	1 to 3	1.8 to 2.1
Silty SAND and sandy SILT	3 to 5	2.8
SAND and inter-bedded silty SAND. Medium dense to dense.	7 to 20 but 3 to 6 at 3.7, 5.5 and 7.5mbgl	15.5 (base of stratum not proven)

4.3 Groundwater Regime

Groundwater was recorded between 0.1 and 0.4mbgl during the shallow investigations. Figure 33 (page 42) of “Geology of Christchurch Urban Area”² indicates that the groundwater table may be encountered within 1mbgl. Similarly, the EQC report on Woolston suburb⁵ indicates that the groundwater table was recorded in the range of 0.1 to 2.6mbgl in this suburb during their ground investigation.

For analysis purposes we have adopted a conservative groundwater level as 0.5mbgl.

5 ENGINEERING DISCUSSION

5.1 Earthquake-Induced Ground Deformation

5.1.1 Overview

Earthquake-induced ground deformation can take a number of forms and can lead to settlement or rupture of structures, pavements and buried services. Under certain conditions in liquefiable soils, differential settlement, sand boils and lateral spreading can occur, and in the non-liquefiable “crust” above the groundwater level, densification, ground rupture (tension cracking) and differential settlement can occur in some soil types.

5.1.2 Earthquake Design Scenarios

Our liquefaction hazard assessment includes evaluations of earthquake-induced ground deformation for:

- The Serviceability Limit State (SLS1) earthquake event
- The Ultimate Limit State (ULS) earthquake event for Importance Level 2 buildings (IL2)
- The 4 September 2010 M_w 7.1 event, and
- The 22 February 2011 M_w 6.3 event.

⁵ Earthquake Commission (December 2011). Christchurch Earthquake Recovery Geotechnical Factual Report Woolston (pp 5). New Zealand. Prepared by Tonkin & Taylor Limited.

5.1.3 Predicted Vertical Deformation

The assessment of liquefaction and ground deformation relies on a number of assumptions, variables and simplifications inherent in the empirical correlations and calculations on which the methods are based.

Assessment of earthquake-induced ground deformation at the site has been carried out in accordance with the DBH Interim guidance for repairing and rebuilding foundations in Technical Category 3, Appendix C¹ and using proprietary liquefaction assessment software⁶.

The derivation of the procedures has been based on a conservative approach to give estimates of deformation that may be experienced in the above earthquake scenarios at a greenfield site, i.e. one with no building present, and not subject to lateral spreading. The results are outlined in Table 2 below and take into account analysis across the two CPTu positions:

Table 2 Estimated "Greenfield" ground surface settlements

Earthquake Scenario	Magnitude (M)	Peak Ground Acceleration (PGA, (m/s ²))	Ground Surface Settlements (mm)	Comments
SLS1	7.5	0.13g	20	Interim recommendations for PGA values for geotechnical design in Canterbury ¹ .
ULS IL2	7.5	0.35g	140	
September 2010	7.1	0.25g	90	Approximate PGA for this site ⁷
February 2011	6.3	0.7g	160	Approximate PGA for this site ⁷

Salient points from the above results are:

- Under the 22 February 2011 earthquake events the estimated ground surface settlements are more than those of a ULS earthquake event. The estimated settlements for the February 2011 events indicate that the site has been tested by slightly more than a design ULS earthquake event.
- The analysis indicates slightly higher differential movements than have been recorded at the site, i.e. differential settlements (measured at 54mm) is less than half of calculated total settlement.
- The predicted vertical settlement profile for the ULS scenario indicates that most of the profile is susceptible to the liquefaction.

Conclusions from our analysis are that the calculated settlement magnitudes under a design SLS1 event fall within the expected future land performance values for a TC2 category site. Under a design ULS IL2 event, the settlement magnitudes are consistent with a TC3 category site, as defined by Table 3.1 of the DBH Guidance, 2011¹.

5.1.4 Predicted Lateral Deformation

Following the procedure outlined by the DBH (April 2012)¹ an initial assessment of the global lateral movement of the site and lateral stretch across the building footprint has been undertaken as outlined in Table 3 below.

⁶ Geologismiki Geotechnical Software, Cliq v1.7 –CPT Liquefaction Assessment Software

⁷ GeoNet. New Zealand. *Geometric mean of horizontal PGAs*. Retrieved from <http://www.geonet.org.nz/resources/basic-data/strong-motion-data/>

Table 3: Predicted lateral deformation at the site based on DBH Guidelines (April 2012)

Global lateral movement category of the site
Minor
Lateral stretch of the ground across a building footprint
Minor

The Earthquake Commission (EQC) ground movement vectors available in the 'Canterbury geotechnical database' indicate that the site is likely to be within the minor to moderate global lateral movement category.

Specific consideration based on site and location observations indicated no significant lateral stretch of the ground across the building footprint. Accordingly, on the basis of our study, we consider the lateral deformation to be *Minor* at this site i.e. less than 50mm for a design SLS event and less than 100mm for a design ULS event.

6 HOUSE FOUNDATION REBUILD

6.1 Design considerations⁸

6.1.1 General principles

Refer to DBH Guidance (April 2012) for the commentary on general design principles
(Section C1.2)

6.1.2 Site Specific Considerations

DBH TC Classification	TC2/TC3 Hybrid
NZS 1170.5 site subsoil class	Class 'D'
Vertical land settlement under SLS1 seismic loading (index values at SLS)	20mm
Vertical land settlement under ULS IL2 seismic loading	140mm
Lateral stretch of the ground across a building footprint	Minor
Global lateral movement category of the site	Minor

6.2 Foundation Rebuild Alternatives – House Foundations

Table C5.6 of the DBH Guidance (April 2012)¹ has been included as Figure 3 of this report for clarity and indicates that the following foundation alternatives are suitable at the site:

- **Timber floor** (light construction only which includes simple house plan shapes with layout constraints):
 - TC3 Surface Structures (most likely Type 1 or Type 2A)

⁸ To be read in conjunction with DBH Guidelines¹. Salient comments from the Guidelines are included in the text.

- **Concrete floor slab** (superstructure constrains: none, apart from two-storey with heavyweight cladding):
 - Hybrid TC2/TC3 foundation comprises a 300mm thick enhanced foundation slab (Option 2) or waffle slab (Option 4) on an 800mm thick gravel raft (taken from Option 1).

Table 3 Overview of shallow foundation solution alignment (1) Vertical settlement (from *Table C5.6 from DBH Guidance April 2012*)

Table C5.6: Shallow foundation solution alignment (1) Vertical settlement					
	TC2 Foundations	Hybrid TC2/ TC3 Foundations	TC3 Foundations		
Land Settlement Demand	SLS <50 mm ULS <100 mm	SLS <50 mm ULS >100 mm	SLS <100 mm	SLS <200 mm	SLS >200 mm
Construction	<u>Timber</u> : NZS 3604 timber floor and shallow piles <u>Concrete</u> : NZS 3604 slab and 800 mm gravel raft (Option 1) Or flat slab (Option 2), ribbed slab (Option 3) or waffle slab (Option 4)	<u>Timber</u> : TC3 Surface Structures <u>Concrete</u> : 300 mm flat slab (Option 2) with gravel raft (Option 1)	Timber floor on enhanced NZS 3604 sub-floor (Type 1 surface structure) Or Timber floor over concrete underslab on gravel raft (Type 2A surface structure)	Timber floor over concrete underslab on gravel raft (Type 2B surface structure)	Specifically designed sub-floor grid (Type 3 surface structure)
Structure Performance Outcome Anticipated	Minor/ slight differential settlement (ie <25 mm SLS, <50 mm ULS)	Minor/ slight differential settlement (ie. <25 mm SLS) Limited damage to foundations at ULS	Readily repairable damage may well occur at SLS Limited damage to foundations at ULS		
Design Considerations	Provision has been made in standard solutions to accommodate effects of <i>minor</i> differential settlement at SLS and ULS should it occur		Provision has been made in standard solutions for Type 1 & 2 surface structures to accommodate effects of <i>minor to moderate</i> differential settlement at SLS (ready reparability) and at ULS (life safety and some reparability)		Provision must be made in specific engineering design solution Type 3 surface structures to accommodate effects of <i>significant</i> vertical settlement at both SLS and ULS (as determined from deep geotechnical information)
Superstructure Constraints	<u>Timber</u> : Light-weight superstructure <u>Concrete</u> : None (apart from two-storey heavy-weight cladding)		Light clad regular superstructures only		

Interim guidance for repairing and rebuilding foundations in Technical Category 3 - 27 April 2012

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6.2.1 Timber Floor - Surface Structure

A Type 1 Surface Structure is similar to a conventional NZ 3604 piled foundation but modified to provide a better performance during seismic loading. Based on the DCP results it is recommended that the piled foundation footings are excavated to a minimum 0.8mbgl to provide an adequate geotechnical ultimate bearing capacity of 200kPa at the site.

The details of principles of Type 1 Surface Structure are outlined in the DBH TC3 Guidance¹ (pages 66 – 70).

A type 2A surface treatment comprises a geogrid reinforced gravel raft 600mm thick, overlain with a 150mm thick reinforced concrete slab and a suspended timber floor above.

Details are contained in the DBH TC3 Guidance (pages 70-72).

6.2.2 Concrete Floor - Hybrid TC2/TC3 Foundation

A Hybrid TC2/TC3 foundation comprises a combination of the TC2 Option 1 geogrid reinforced gravel raft with an overlying (Option 2) enhanced foundation slab (300mm thick) or Option 4 enhanced foundation slab (waffle slab). This will provide a foundation system that is robust, and will be repairable (by grout injection) in the event of differential settlements following a ULS event. The geogrid

reinforcement gravel raft should be constructed at a minimum depth of 0.8mbgl to achieve a geotechnical ultimate bearing capacity if at least 200kPa.

6.3 Construction Considerations

For detailed method statements and generic designs please refer to DBH Guidance (April 2012).

Consideration will need to be given to the proximity of neighbouring property in the selection of the final design alternative and during its construction.

It is noted that limited de-watering may be required to complete this work if groundwater levels are elevated above those encountered during the ground investigation.

During the works it is important that a suitably qualified Geotechnical Engineer inspects the foundation works.

Any deposits of soft, loose, organic, very silty or otherwise unsuitable material encountered at founding level including localised 'soft-spots' should be removed to expose competent natural ground.

6.4 Design for Resilience

After applying current industry accepted methods and referring to DBH practice guidance we reiterate that our predictions of land deformation in seismic events are relatively crude estimates only so it is prudent to make cautious decisions for redevelopment of the site.

It is implicit in the Building Code performance requirements that structures be designed so they satisfy performance requirements for a one-off earthquake event. Important points to recognise from this are:

- The Code requirements and DBH solutions should be considered as *minimum* design requirements required to obtain Building Consent.
- The design earthquake scenarios are significant earthquake events. We have seen in the Canterbury earthquake sequence a significant earthquake can be followed by multiple aftershocks, some of which are able to cause incremental earthquake-induced land deformation and building damage.

Although a building may satisfy the minimum performance requirements under a single Serviceability Limit State event with ensuing land deformations within the tolerable limits, the cumulative effects of aftershocks can cause land and foundation deformation to become excessive.

The DBH guidance provides design solutions and methods that aim to substantially improve the performance of house foundations in future seismic events, recognising that the land performance may still induce deformations and loads that could cause some damage. Stakeholders and designers are referred to Table 8.1, "Serviceability limit state performance expectations for rebuilt houses" in Section 8 of the DBH Guidance (November 2011), "Insurance and regulatory requirements" for criteria for the nature of future damage that corresponds to "repairability".

Using a stiffer, more robust foundation system than the minimum permissible for Code compliance will provide resilience against potentially excessive cumulative deformation. Homeowners can choose a more robust foundation alternative to provide greater structural resilience against earthquake-induced damage, but this will most likely be at the owner's expense.

7 LIMITATIONS

This report has been prepared solely for the use of our client, TOWER Insurance Ltd, their agent Stream Group NZ, their professional advisers and Christchurch City Council (CCC) in relation to the specific project described herein. No liability is accepted in respect of its use for any other purpose or by any other person or entity.

It is recommended that all other future owners of this property seek professional geotechnical advice to satisfy themselves as to its ongoing suitability for their intended use.

It should be noted that Coffey Geotechnics (NZ) Ltd have not carried out a detailed structural inspection of any building(s) on the property nor has a topographical survey been undertaken. We had not visited the property prior to the earthquake.

As factual evidence has been obtained solely from test methods, which by their nature only provide information about a relatively small volume of subsoils, there may be special conditions pertaining to this site which have not been disclosed by the investigation and which have not been taken into account in the report. If variations in the subsoils occur from those described or assumed to exist then the matter should be referred back to us immediately.

8 CLOSURE

If you have any queries or you require any further clarification on any aspects of this report, please do not hesitate to contact the undersigned.

For and on behalf of Coffey Geotechnics (NZ) Limited

Prepared By

Shailesh Karmacharya

Engineering geologist

Authorised By

Richard Knowles

Principal Geotechnical Engineer
MIPENZ, CPEng

Attachments

- Important information about your *Coffey* report
- Hand auger borehole logs and dynamic penetrometer test result
- CPTu signatures

Important information about your Coffey Report

As a client of Coffey you should know that site subsurface conditions cause more construction problems than any other factor. These notes have been prepared by Coffey to help you interpret and understand the limitations of your report.

Your report is based on project specific criteria

Your report has been developed on the basis of your unique project specific requirements as understood by Coffey and applies only to the site investigated. Project criteria typically include the general nature of the project; its size and configuration; the location of any structures on the site; other site improvements; the presence of underground utilities; and the additional risk imposed by scope-of-service limitations imposed by the client. Your report should not be used if there are any changes to the project without first asking Coffey to assess how factors that changed subsequent to the date of the report affect the report's recommendations. Coffey cannot accept responsibility for problems that may occur due to changed factors if they are not consulted.

Subsurface conditions can change

Subsurface conditions are created by natural processes and the activity of man. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. Consult Coffey to be advised how time may have impacted on the project.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and when they are taken. Data derived from literature and external data source review, sampling and subsequent laboratory testing are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, because no professional, no matter how qualified, can reveal what is hidden by

earth, rock and time. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. For this reason, owners should retain the services of Coffey through the development stage, to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Your report will only give preliminary recommendations

Your report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced and therefore your report recommendations can only be regarded as preliminary. Only Coffey, who prepared the report, is fully familiar with the background information needed to assess whether or not the report's recommendations are valid and whether or not changes should be considered as the project develops. If another party undertakes the implementation of the recommendations of this report there is a risk that the report will be misinterpreted and Coffey cannot be held responsible for such misinterpretation.

Your report is prepared for specific purposes and persons

To avoid misuse of the information contained in your report it is recommended that you confer with Coffey before passing your report on to another party who may not be familiar with the background and the purpose of the report. Your report should not be applied to any project other than that originally specified at the time the report was issued.

Coffey Geotechnics Pty Ltd ABN 93 056 929 483

Important information about your Coffey Report

Interpretation by other design professionals

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, retain Coffey to work with other project design professionals who are affected by the report. Have Coffey explain the report implications to design professionals affected by them and then review plans and specifications produced to see how they incorporate the report findings.

Data should not be separated from the report*

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

Logs, figures, drawings, etc. are customarily included in our reports and are developed by scientists, engineers or geologists based on their interpretation of field logs (assembled by field personnel) and laboratory evaluation of field samples. These logs etc. should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

Geoenvironmental concerns are not at issue

Your report is not likely to relate any findings, conclusions, or recommendations about the potential for hazardous materials existing at the site unless specifically required to do so by the client. Specialist equipment, techniques, and personnel are used to perform a geoenvironmental assessment. Contamination can create major health, safety and environmental risks. If you have no information about the potential for your site to be contaminated or create an environmental hazard, you are advised to contact Coffey for information relating to geoenvironmental issues.

Rely on Coffey for additional assistance

Coffey is familiar with a variety of techniques and approaches that can be used to help reduce risks for all parties to a project, from design to construction. It is common that not all approaches will be necessarily dealt with in your site assessment report due to concepts proposed at that time. As the project progresses through design towards construction, speak with Coffey to develop alternative approaches to problems that may be of genuine benefit both in time and cost.

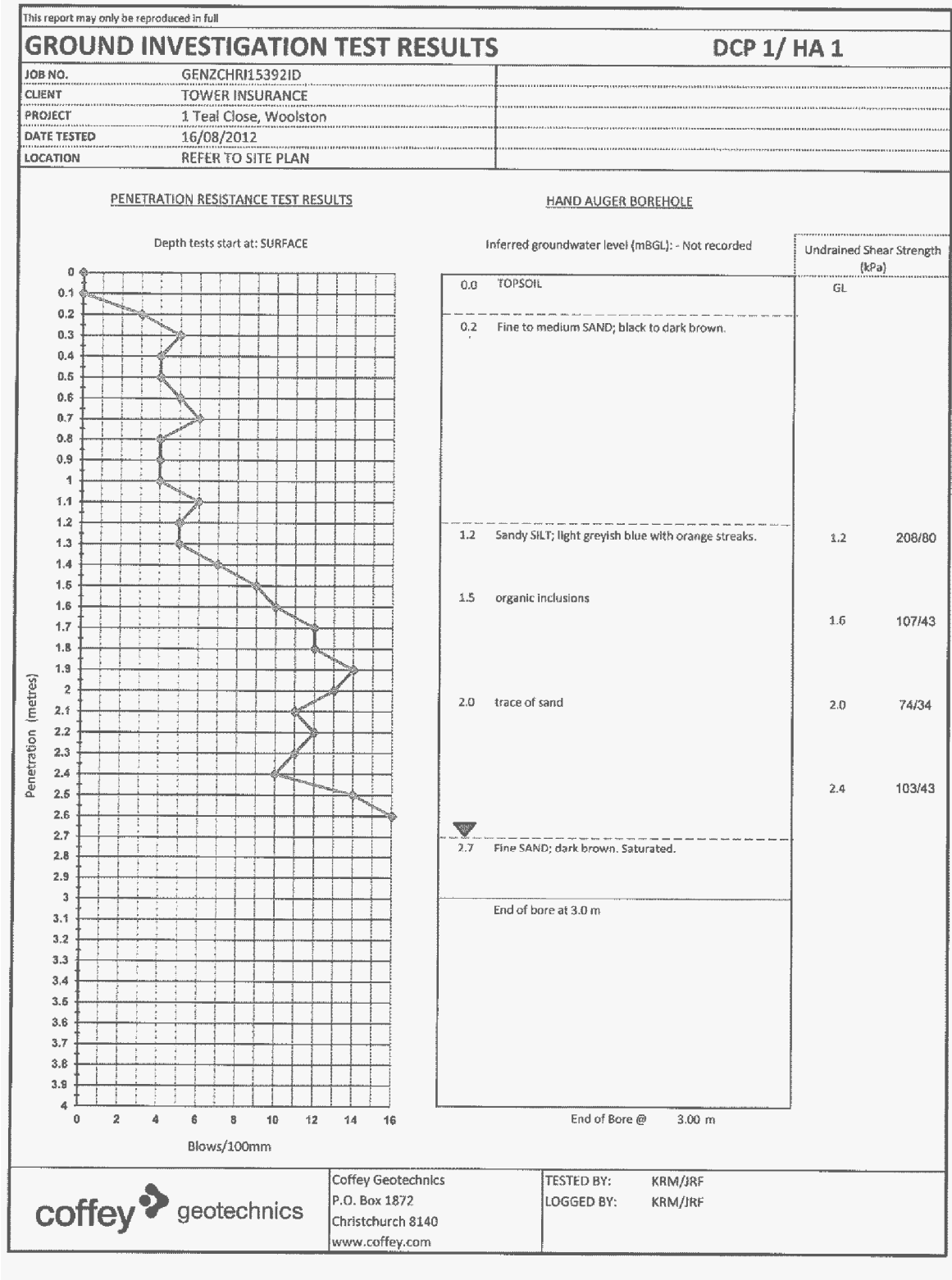
Responsibility

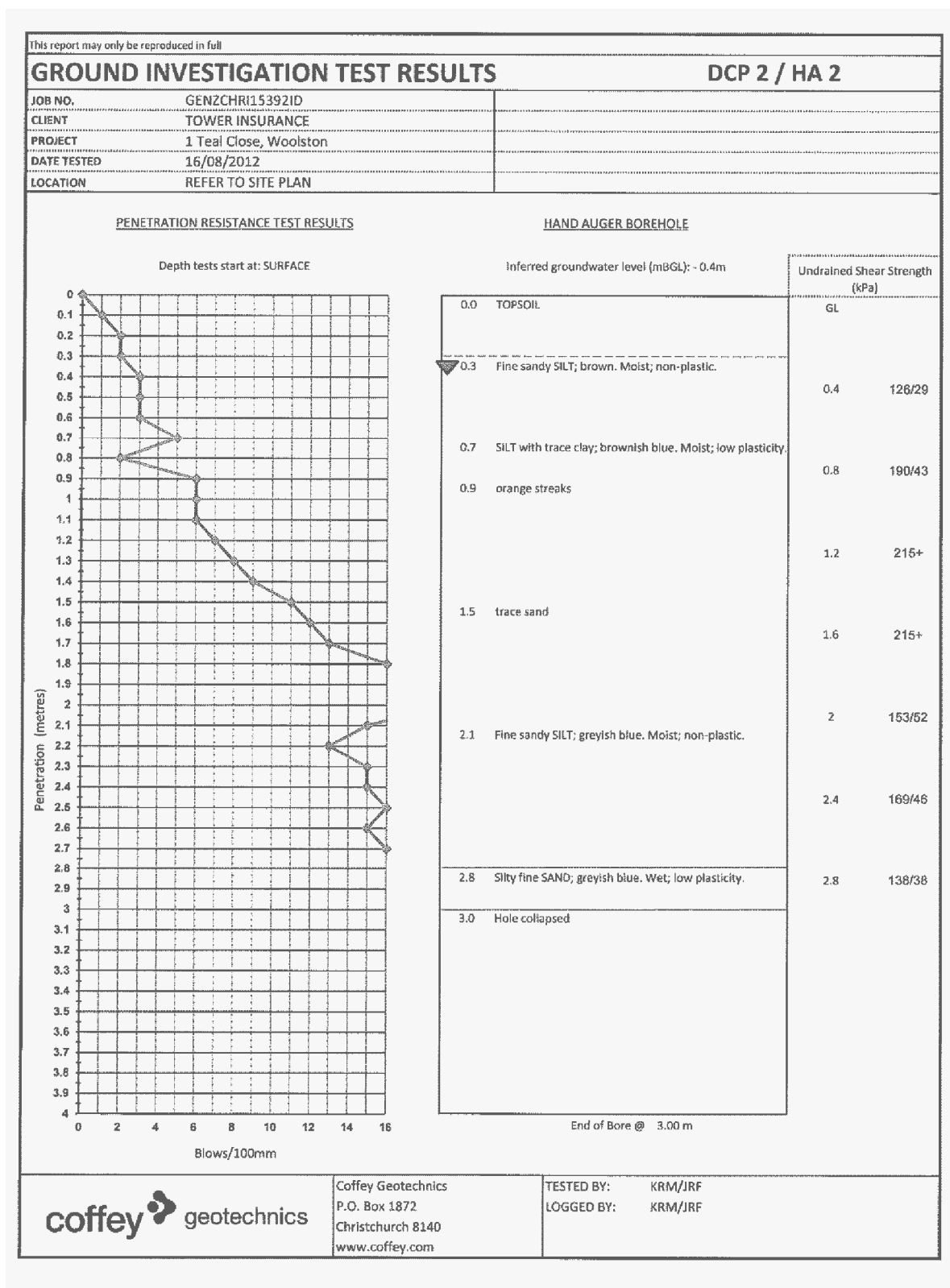
Reporting relies on interpretation of factual information based on judgement and opinion and has a level of uncertainty attached to it, which is far less exact than the design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. To help prevent this problem, a number of clauses have been developed for use in contracts, reports and other documents. Responsibility clauses do not transfer appropriate liabilities from Coffey to other parties but are included to identify where Coffey's responsibilities begin and end. Their use is intended to help all parties involved to recognise their individual responsibilities. Read all documents from Coffey closely and do not hesitate to ask any questions you may have.

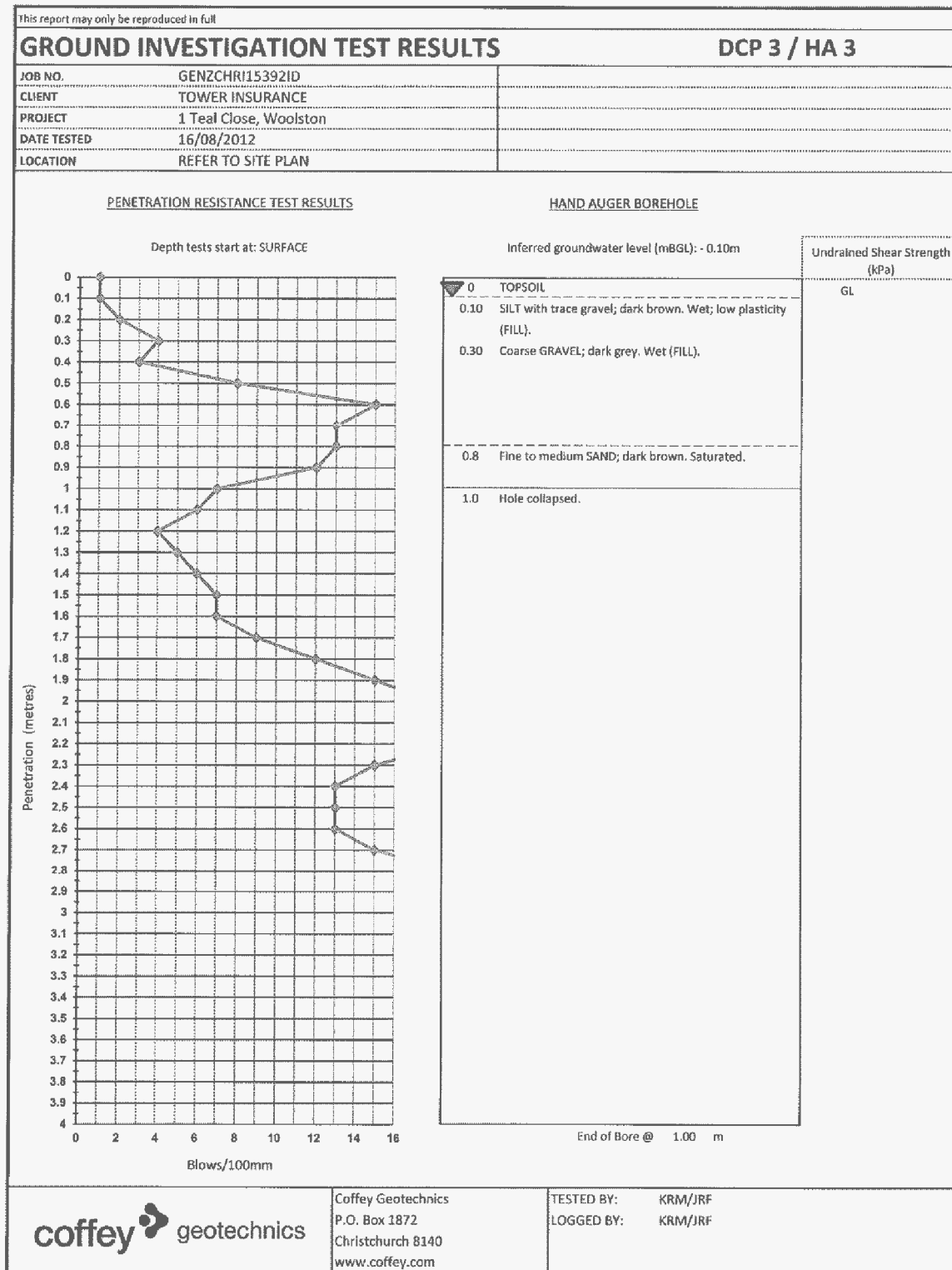
* For further information on this aspect reference should be made to "Guidelines for the Provision of Geotechnical information in Construction Contracts" published by the Institution of Engineers Australia, National headquarters, Canberra, 1987.

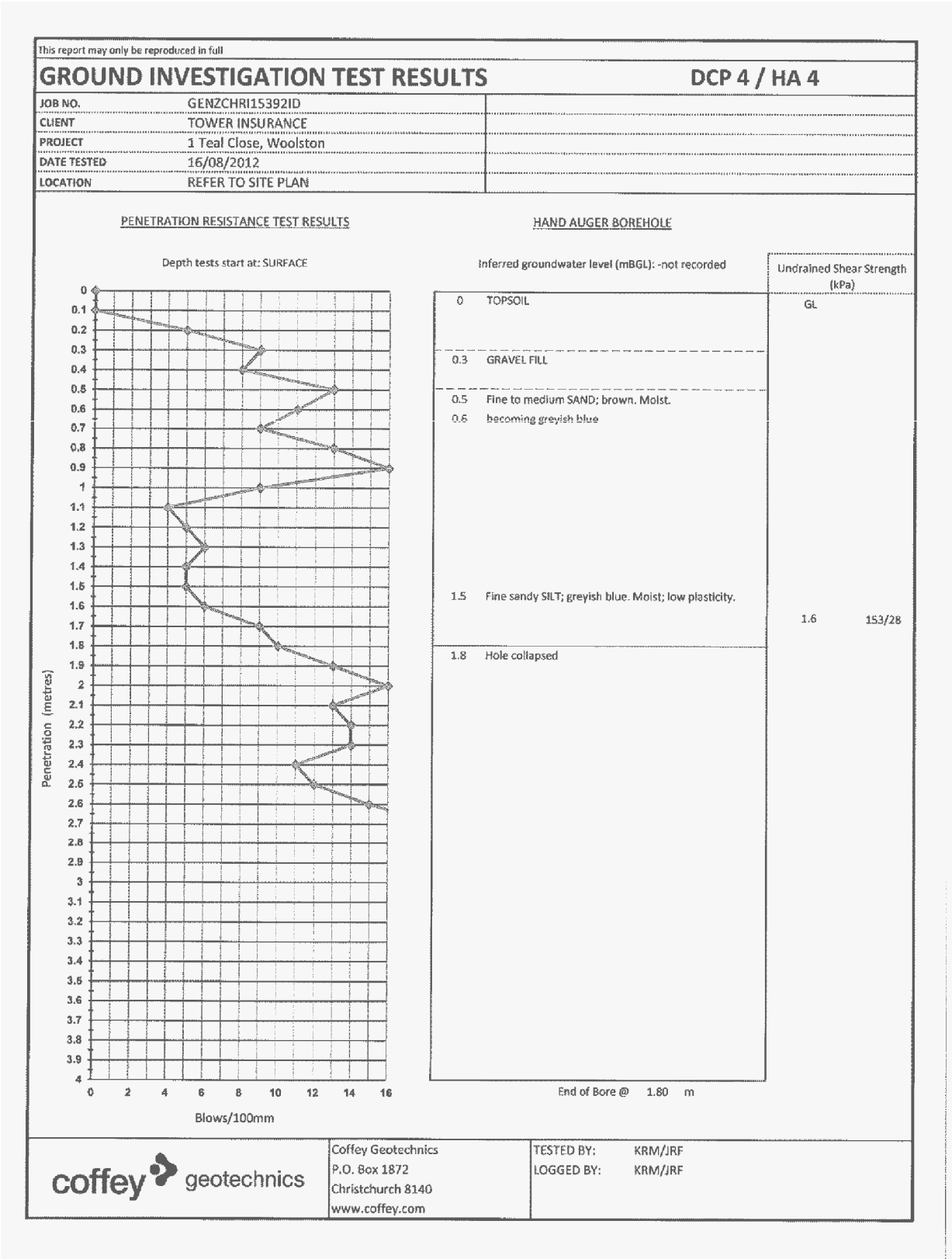
Coffey Geotechnics Pty Ltd ABN 93 056 929 483

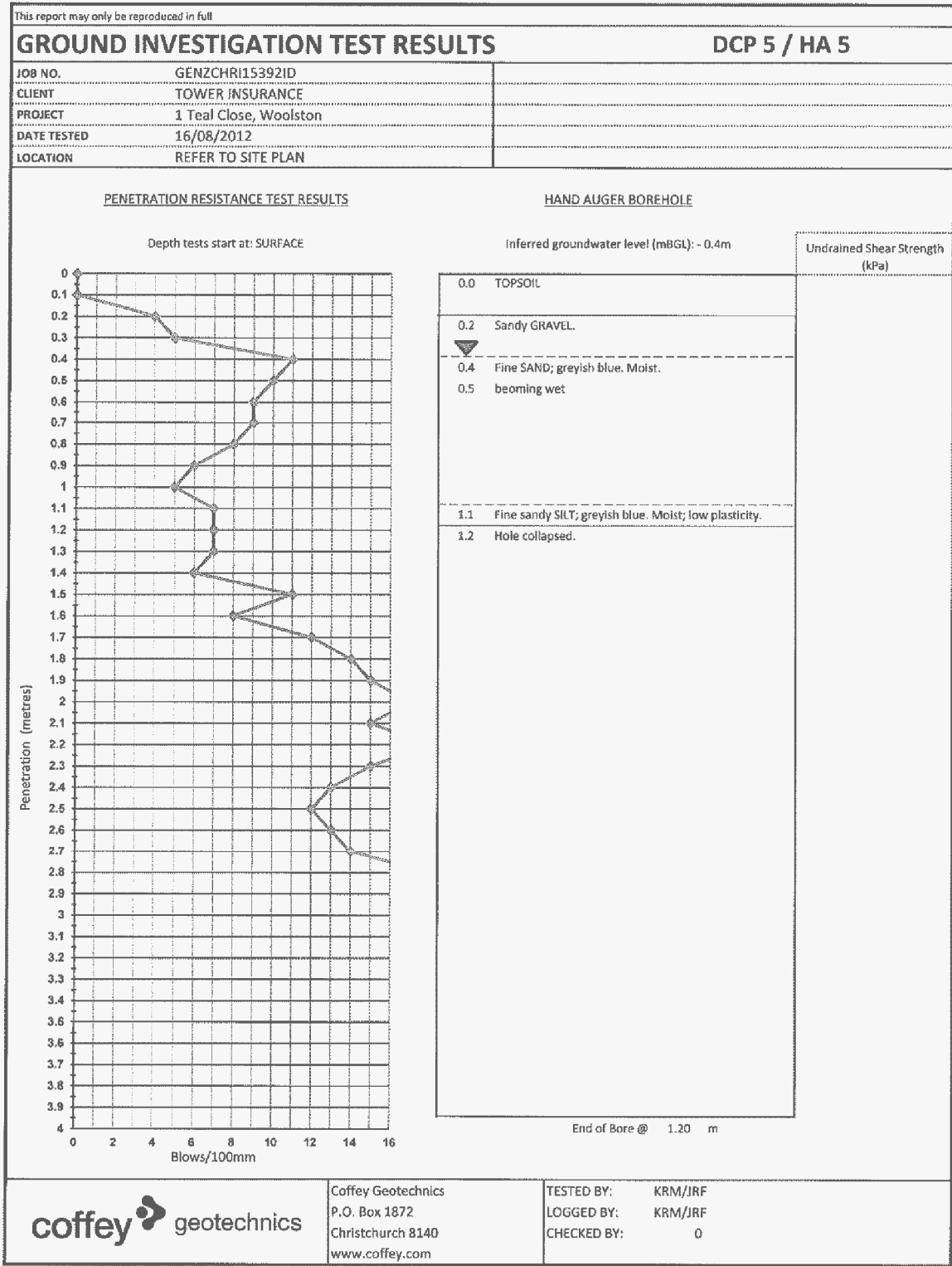
Hand auger borehole logs and dynamic cone penetrometer test results



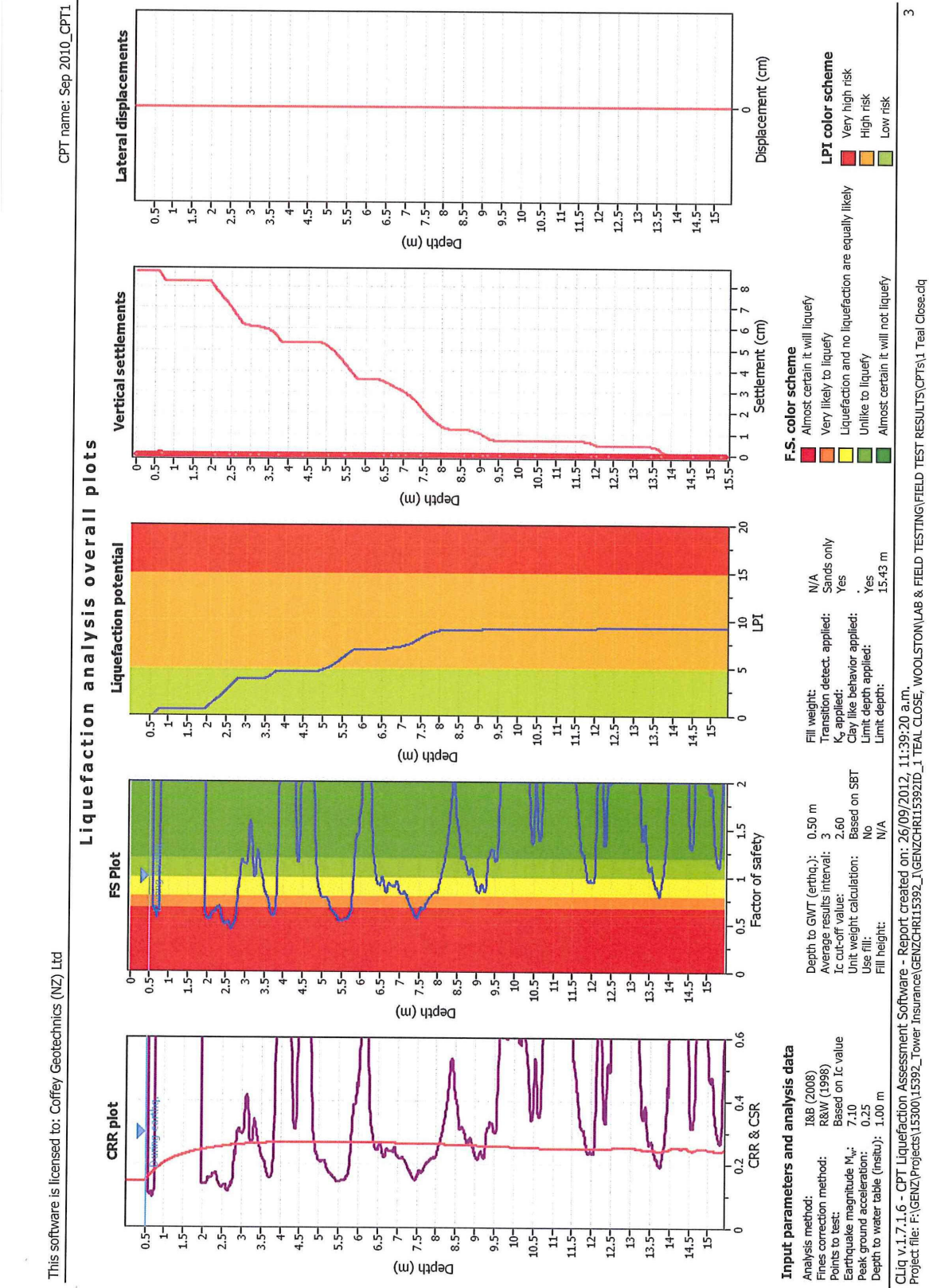


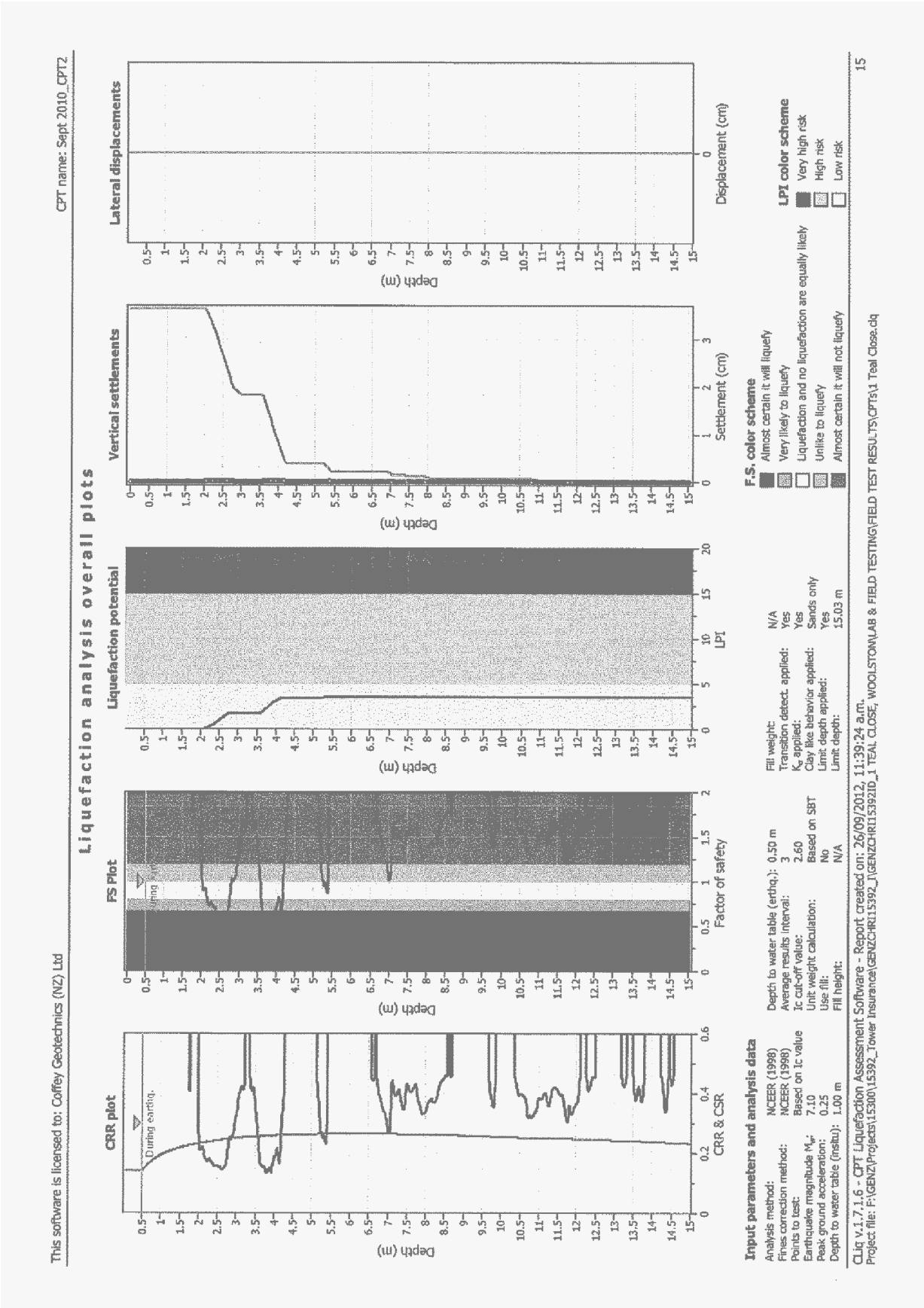


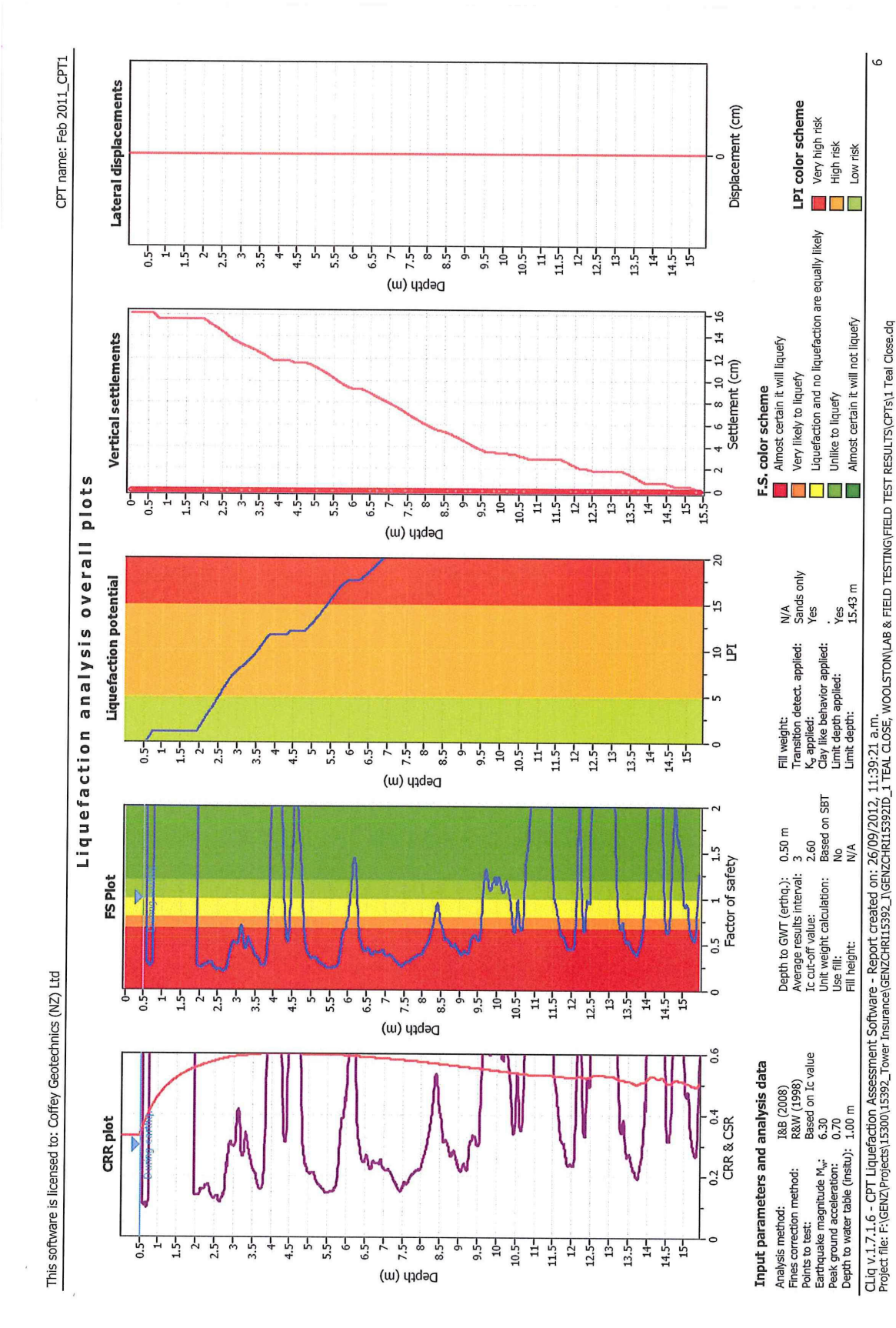


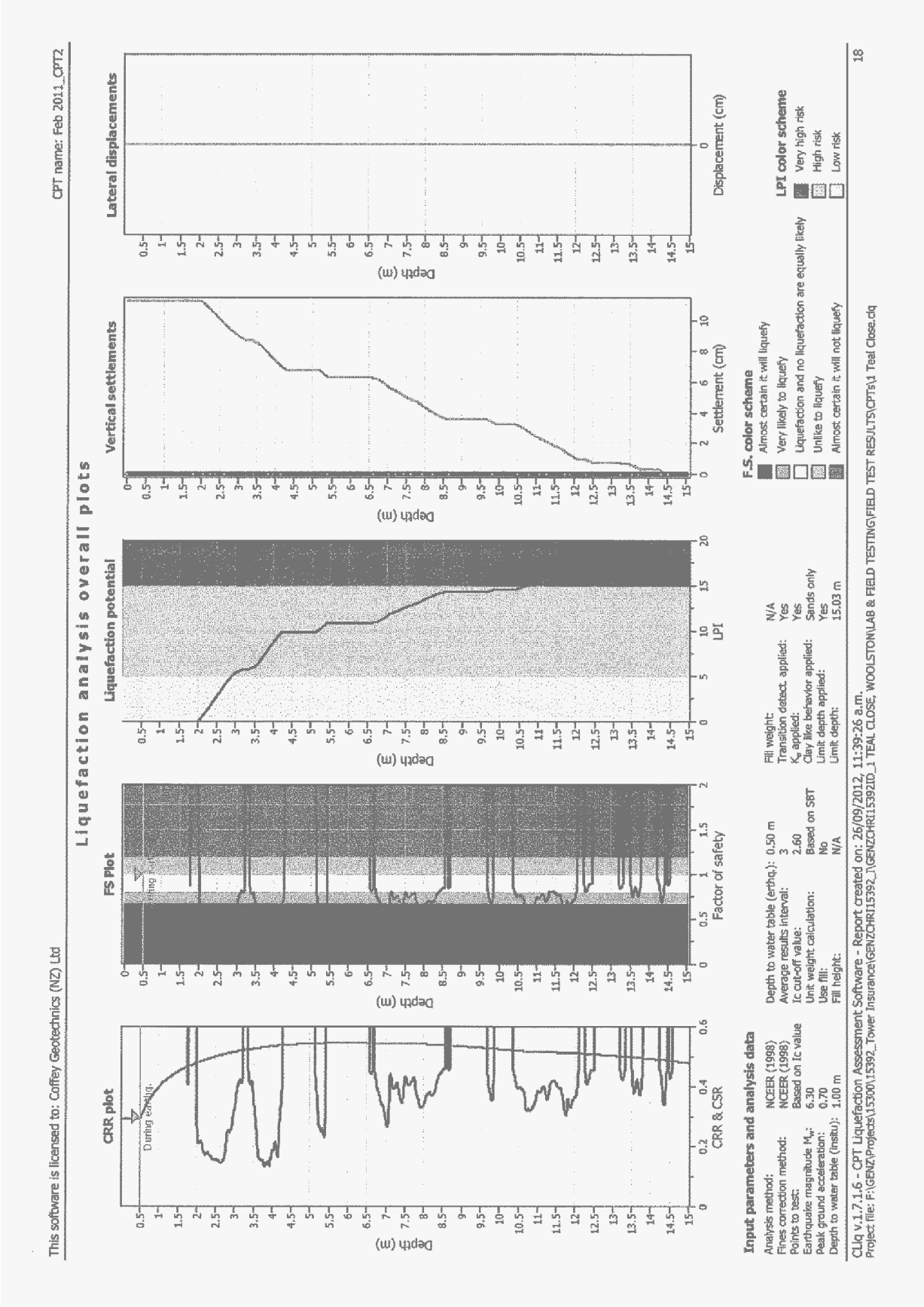


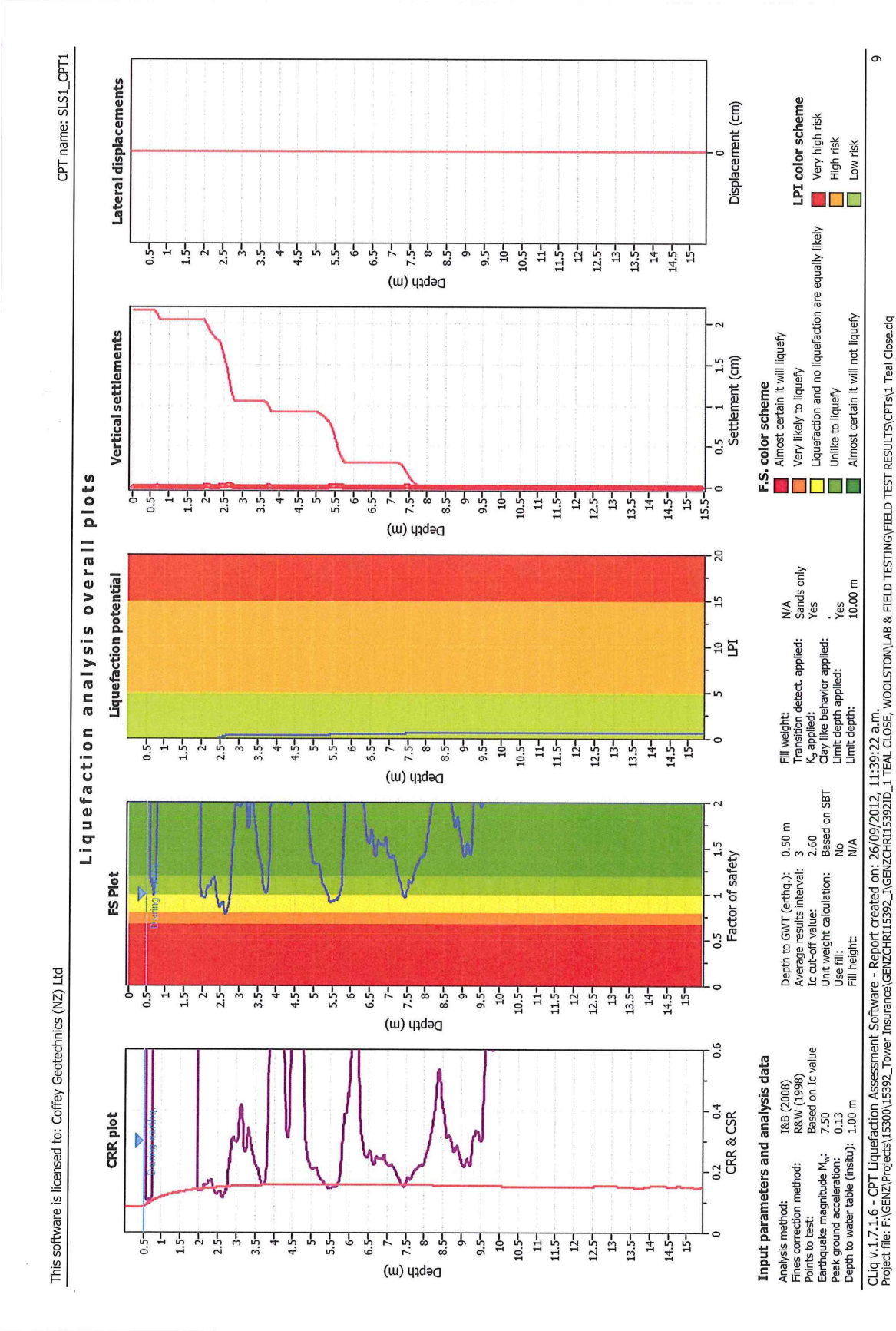
CPTu signatures

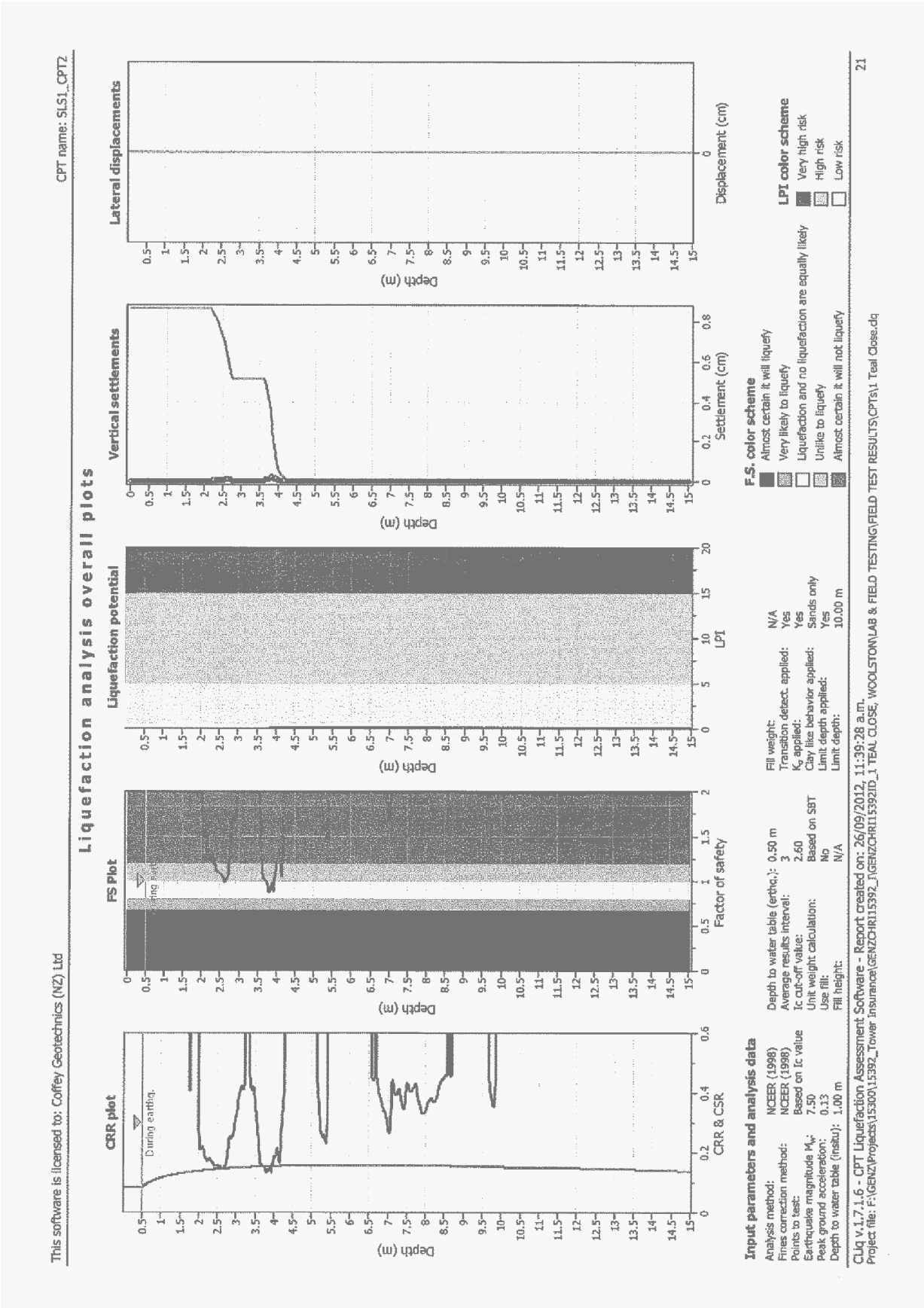








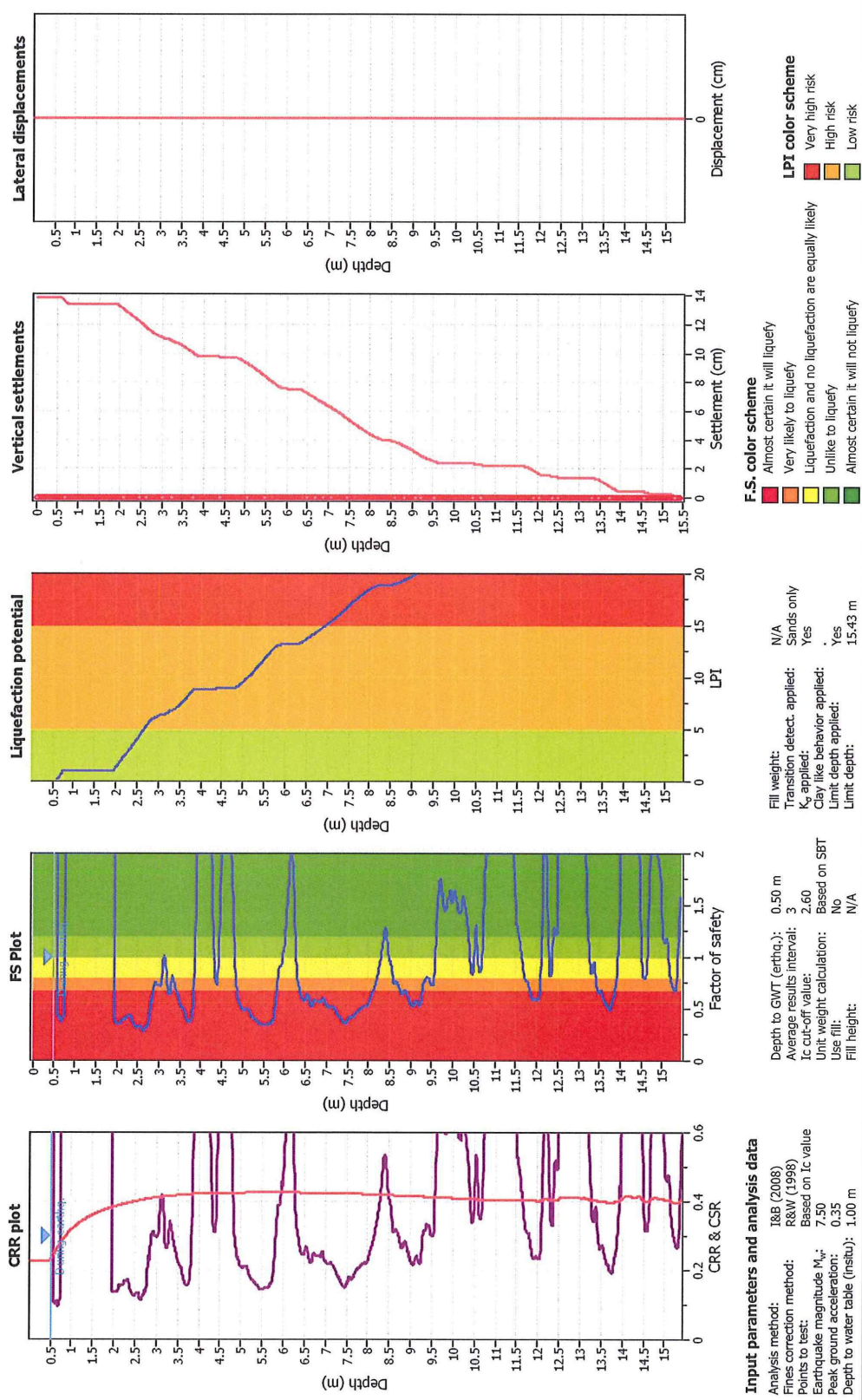


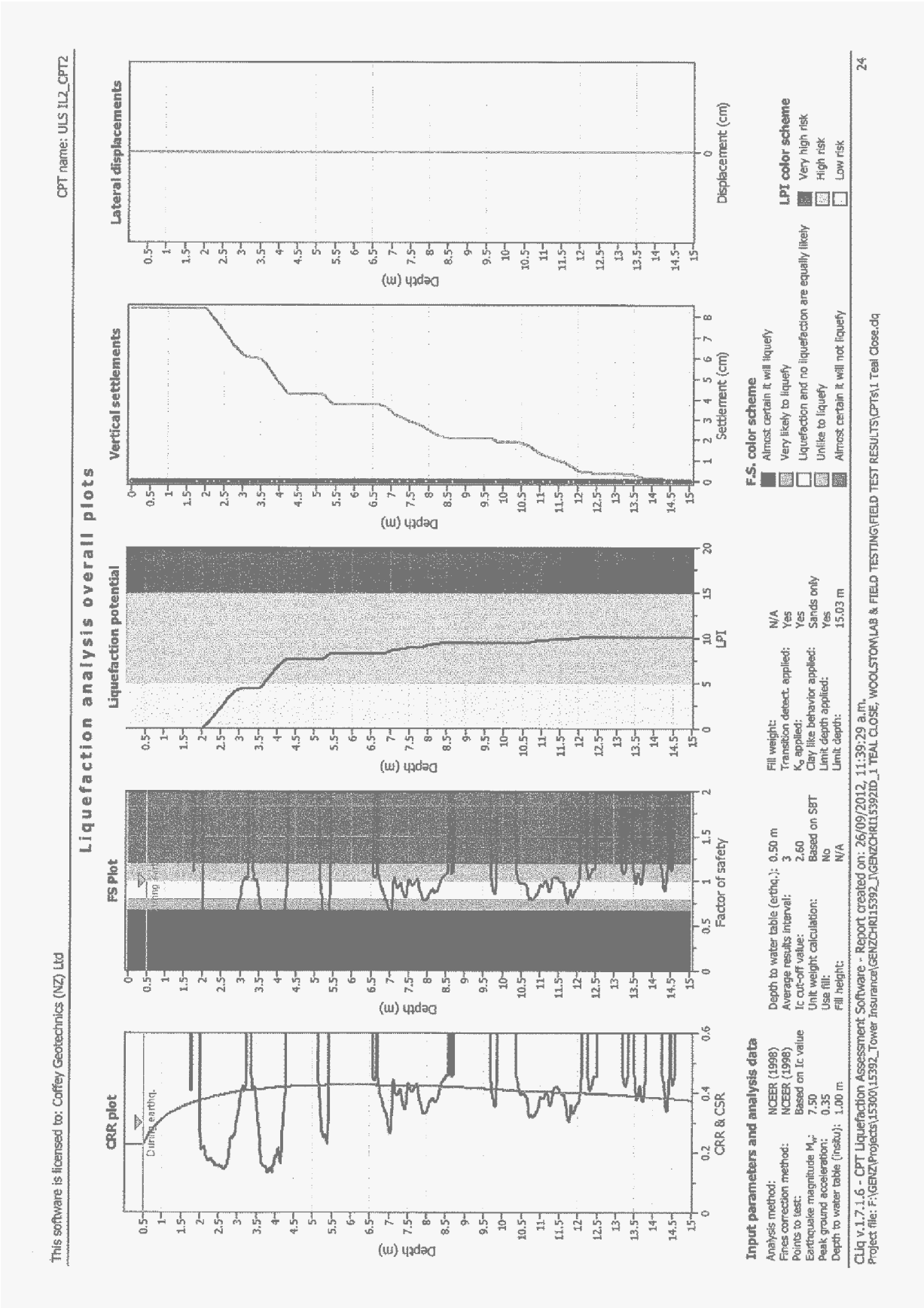


CPT name: ULS IL2_CPT1

This software is licensed to: Coffey Geotechnics (NZ) Ltd

Liquefaction analysis overall plots





GASFITTING CERTIFICATE OF COMPLIANCE



Client Name: Stonewood Homes

Reference or Job #: Brown/Tower ICP (if known):

Address of work: 1 Teal Close

Suburb: Woolston Town / City: Christchurch

Description of gasfitting work: (If different gasfitting work was done by different people, state who did what gasfitting.)

Install one free standing gas oven, install gas pipe, install one 2 x bottle station.

Gas supply pressure 3 kPa Risk classification (tick one) ☐ Low-Risk ☒ General ☐ High-risk

Gas type (tick one) ☐ Natural gas ☒ LPG ☐ Biogas ☐ Other (specify)

The work has been done in accordance with a certified design: ☐ Yes ☒ No

☐ Copy of certified design attached (or provide reference)

The work relies on manufacturer's instructions: ☐ Yes ☒ No

☐ Copy of manufacturer's instructions attached (or provide reference)

The work has been done in accordance with means of compliance (specify):

☒ Yes - AS/NZS 5601.1 sections 3 to 6

☐ Yes - AS/NZS 5601.2 sections 3 to 9

☐ No

Were any other standards required for compliance?

☐ Yes (specify)

☒ No

Parts of the gas installation that are safe to connect to a gas supply?

☒ All ☐ Parts (specify)

Date or dates on which the work was done:

03/04/2014

Name and registration number of anyone who carried out work under supervision:

Martin Miltner 25601

☒ I confirm that I am satisfied that the work described in this certificate of compliance has been done lawfully and safely, and that the information on this certificate is correct.

Certifier name:

Grant Williams

Registration number:

16469

Certificate Issue Date:

04/04/2014

Signature:

Outline any additional information attached:

**smartsystems**

Compliance and Electrical Safety Certificate

This form has been issued by the Electrical Workers Registration Board



Unique ID: 724

This form has been designed to be used by licensed electrical workers to certify low voltage installations or part installations that comply with Part 2 of AS/NZS 3000 and are safe to be connected to a 230/400 volt multiple earth neutral (MEN) system of electrical supply.

(1) Location of installation

Address: 1 Teal Close, Woolston

(2) Customer Information

Name: Ray Brown & Carolyn Atger

Postal Address: 1 Teal Close, Woolston

Phone and Email: 022 613 7554 or ray.brown@bnd.co.nz

(3) Electrical Worker Information

Name: David Gilbert Registration/Practising Licence Number: E15475

Organisation: Smart Systems Ltd Telephone Number: 3384238

Email: operations@smartsystems.net.nz

Name of person(s) being supervised:

(4) Work DetailsThe work is (circle): ☐ additions ☐ alterations ☒ new workThe prescribed electrical work is: ☒ High Risk ☐ General ☐ Low Risk ☐ The homeowner has undertaken part of the electrical installation work.
(Please tick (✓) as appropriate)Indicate the number of each item
installed or altered:

		Other Work?
Number of lighting outlets:	43	1 Alarm cct, 1 Heat Pump cct
Number of socket outlets:	42	2 Heated Towel Rail ccts
Number of ranges:	1	
Number of water heaters:	1	

Tick (✓) if work includes:

- ☒ Mains
- ☒ MEN switchboard closest to point of supply
- ☒ Main Earthing System
- ☐ Electric Lines

(5) Certification of Work

I certify that the completed prescribed electrical work to which this certificate applies, has been done lawfully and safely and the information in the certificate is correct in that the installation, or part of the installation:

- ☒ has been installed in accordance with a certified design
- ☒ has an earthing system that is correctly rated
- ☒ contains fittings which are safe to connect to a power supply
- ☒ relies on supplier's Declaration of Conformity (attach or reference¹)
- ☒ relies on manufacturer's instructions (attach or reference¹)
- ☒ has been satisfactorily tested in accordance with Electricity (Safety) Regulations 2010
- ☒ is safe to connect

Electronic reference: Smart Systems Ltd 1/11 Print Place, Christchurch

Electrical Worker's Signature:

Date: 11/03/2014

1. If it is impractical to attach a copy of a particular manufacturer's instructions, or of any certified design or supplier declarations of conformity, provide a reference to where the documents can be found, in a readily accessible format, through electronic means.

Test Results:

	Electrical Worker	Inspector
Polarity (independent earth):		
Insulation resistance:		
Earth continuity:		
Bonding:		
Other (specify):		

(6) Electrical Safety Certificate

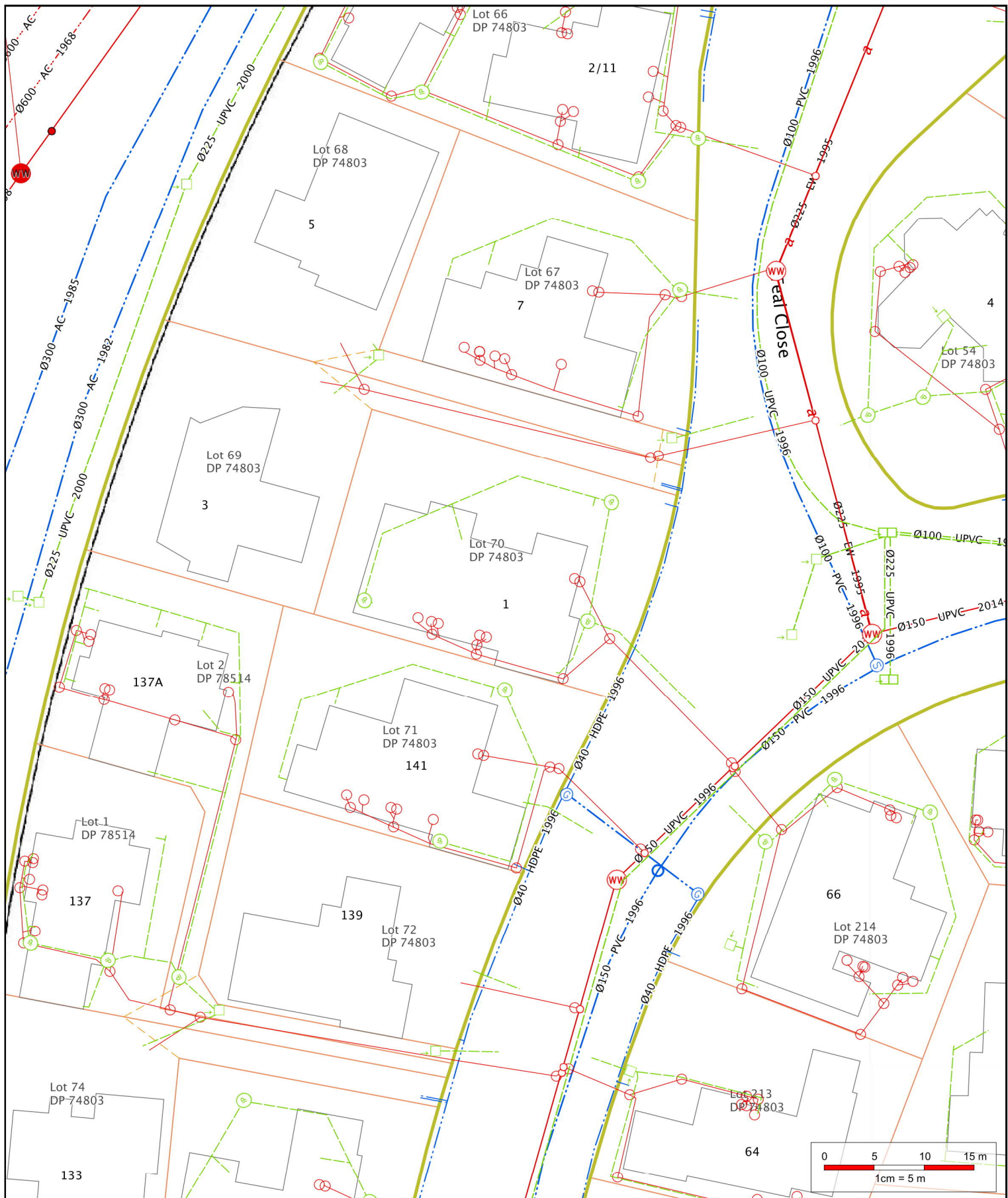
I certify that the installation, or part of the installation, to which the Electrical Safety Certificate applies is connected to a power supply and is safe to use

Name: David Gilbert Registration/Practising Licence Number: E15475

Signature:

Date: 11/03/2014

(if certifier is different from electrical worker)



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21/05/2020 10:55:24 AM



ph: 941-8300 fax: 941-8385

Accuracy not guaranteed. Onsite verification required. Display of data scale dependent, full detail available at 1:500.

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Private Drainage

Standard Infrastructure

- Bio Gas
- Condensate Trap
- End Cap
- Inlet
- Outlet
- Valve
- Main
- Cable

Water Intake/Supply

- Connector
- Bellows
- Connector
- Hydrant

Water Intake/Supply

- Inlet
- Meter
- Outlet
- Pump
- Restrictor
- Valve
- Air Release
- Butterfly
- Flow restriction
- Gate
- Pressure Activated
- Sluice
- Valve
- Reservoir
- Structure
- Lateral
- Main
- Sub Main

Wastewater

- End Cap
- Valve
- Air Gap Separator
- Vent
- Eye
- Eye (Vertical)
- Outfall
- Pump
- Junction
- Access
- Flush Manhole
- Inspection Point
- Standard Manhole
- Trap
- Vented Manhole
- Lateral
- Main
- Pressure Main

Wastewater

- Lateral Fitting
- Local Pressure
- CP Control Panel
- BK Boundary Kit
- T Tank System
- Site
- Vacuum Chamber
- Vacuum Breather
- Bend
- Change
- Eye
- Flow Restriction
- Inlet
- Dome Sump
- Double Sump
- Gross Debris Trap

Stormwater

- Inlet
- Inlet Headwall
- Pipe End
- Silt Trap
- Single Sump
- Soak Pit
- Triple Sump
- Junction
- Standard Manhole
- Outlet
- Pump
- Structure
- Basin
- Lateral
- Main
- Lateral Fitting
- Double Sump

Stormwater

- Lateral Fitting
- Single Sump
- Soak Pit
- Inspection point
- Manhole
- All services
- Pipe Protection
- a- Abandoned
- p- Proposed
- os- Out of service
- Landbase
- Easement





**1 Teal Close
Subdivision Consents**



Land Use Resource Consents within 100 metres of 1 Teal Close

Note: This list does not include subdivision Consents and Certificates of Compliance issued under the Resource Management Act.

1/11 Teal Close

RMA/1997/1562

To erect 2 residential units and exceed the site coverage for Unit 2. - Historical Reference RES971747

Processing complete

Applied 27/06/1997

Decision issued 13/08/1997

Granted 13/08/1997

127 Kotuku Crescent

RMA/1998/600

Non-Complying Subdivision activity under the Transitional Plan. - Historical Reference RES980583

Processing complete

Applied 16/02/1998

Decision issued 13/03/1998

Granted 13/03/1998

RMA/1999/2238

To erect a dwelling and attached garage which exceeds site coverage. - Historical Reference RES990904

Processing complete

Applied 30/03/1999

Decision issued 29/04/1999

Granted 29/04/1999

129 Kotuku Crescent

RMA/1998/2020

To erect a dwelling and attached garage which exceeds the 35% site coverage, intrudes into the 3m rear boundary setback and 3m living area window setback. - Historical Reference RES982311

Processing complete

Applied 25/08/1998

Decision issued 03/09/1998

Granted 03/09/1998

RMA/1998/600

Non-Complying Subdivision activity under the Transitional Plan. - Historical Reference RES980583

Processing complete

Applied 16/02/1998

Decision issued 13/03/1998

Granted 13/03/1998

131 Kotuku Crescent

RMA/1998/2203

Discretionary Subdivision activity/ / - Historical Reference RES982519

Processing complete

Applied 15/09/1998

Decision issued 18/09/1998

Granted 18/09/1998

137 Kotuku Crescent

RMA/1998/1949

Non-Complying Two Lot Fee-Simple Subdivision. - Historical Reference RES982225

Processing complete

Applied 10/06/1998

Decision issued 21/08/1998

Granted 21/08/1998

RMA/1998/655

To erect two dwelling and attached garages which fail to comply with the site coverage and 4.5m road boundary dary setback. - Historical Reference RES980644

Processing complete

Applied 16/03/1998

Decision issued 23/04/1998

Granted 23/04/1998

137A Kotuku Crescent

RMA/1998/1949

Non-Complying Two Lot Fee-Simple Subdivision. - Historical Reference RES982225

Processing complete

Applied 10/06/1998

Decision issued 21/08/1998

Granted 21/08/1998

RMA/1998/655

To erect two dwelling and attached garages which fail to comply with the site coverage and 4.5m road boundary dary setback. - Historical Reference RES980644

Processing complete

Applied 16/03/1998

Decision issued 23/04/1998

Granted 23/04/1998

141 Kotuku Crescent

RMA/1997/1286

To erect a dwelling and attached garage where the garage is sited within the 4.5m Road boundary. - Historical Reference RES971419

Processing complete

Applied 29/05/1997

Decision issued 09/06/1997

Granted 09/06/1997

RMA/1997/1467

To erect a dwelling and exceed the 35% site coverage by 2.2% and intrude onto the 3m living area window setback. - Historical Reference RES971631

Processing complete

Applied 20/06/1997

Decision issued 04/07/1997

Granted 04/07/1997

143 Kotuku Crescent

RMA/1997/3167

To erect a side entry garage 2m from the road boundary. - Historical Reference RES973661

Processing complete

Applied 18/12/1997

Decision issued 30/01/1998

Granted 30/01/1998

15 Teal Close

RMA/1998/2372

To erect a garage attached to the dwelling 3.9m from the road boundary and exceeds 40 square metres in size. - Historical Reference RES982712

Processing complete

Applied 06/10/1998

Decision issued 09/10/1998

Granted 09/10/1998

16 St Adela Place

RMA/1973/311

Site a swimming pool in the side of property. - Historical Reference RES953003

Processing complete

Applied 06/08/1973

Decision issued 01/01/1999

Granted 01/01/1999

RMA/1999/2891

To the parking and storage of vehicles, plant and working stockpiles of materials. - Historical Reference RES991738

Withdrawn

Applied 14/06/1999

RMA/2010/566

Land Use for Earthworks - Issued 8/06/2010 Change of Conditions: RMA92024700 - Historical Reference RMA92016079

Processing complete

Applied 23/04/2010

Decision issued 08/06/2010

Granted 04/06/2010

RMA/2010/863

RIGHT OF WAY - Historical Reference RMA92016406

Lapsed

Applied 14/06/2010

Decision issued 22/06/2010

Granted 22/06/2010

RMA/2014/944

Dwelling with Attached Garage [Lot 12] - Historical Reference RMA92025580

Processing complete

Applied 22/04/2014

Decision issued 02/05/2014

Granted 30/04/2014

17 Teal Close

RMA/2002/1168

Dwelling with an attached garage which exceeds 20m and garage intrudes into the 4.5m setback from Dyers Road. - Historical Reference RMA20010162

Processing complete

Applied 21/05/2002

Decision issued 18/07/2002

Granted 15/07/2002

RMA/2003/1221

Dwelling with an attached garage which fails to comply with 20m continuous building length and 4.5m road setback from Dyery Road. - Historical Reference RMA20013508

Processing complete

Applied 08/05/2003

Decision issued 22/05/2003

Granted 21/05/2003

18 St Adela Place

RMA/1973/311

Site a swimming pool in the side of property. - Historical Reference RES953003

Processing complete

Applied 06/08/1973

Decision issued 01/01/1999

Granted 01/01/1999

RMA/1999/2891

To the parking and storage of vehicles, plant and working stockpiles of materials. - Historical Reference RES991738

Withdrawn

Applied 14/06/1999

RMA/2010/566

Land Use for Earthworks - Issued 8/06/2010 Change of Conditions: RMA92024700 - Historical Reference RMA92016079

Processing complete

Applied 23/04/2010

Decision issued 08/06/2010

Granted 04/06/2010

RMA/2010/863

RIGHT OF WAY - Historical Reference RMA92016406

Lapsed

Applied 14/06/2010

Decision issued 22/06/2010

Granted 22/06/2010

RMA/2014/1084

Dwelling with Attached Garage [Lot 11] - Historical Reference RMA92025724

Processing complete

Applied 07/05/2014

Decision issued 16/05/2014

Granted 16/05/2014

18 Ti Rakau Drive

RMA/1999/1658

To erect a garage within the 4.5m Road boundary setback. - Historical Reference RES990185

Processing complete

Applied 25/01/1999

Decision issued 29/01/1999

Granted 29/01/1999

20 St Adela Place

RMA/1973/311

Site a swimming pool in the side of property. - Historical Reference RES953003

Processing complete

Applied 06/08/1973

Decision issued 01/01/1999

Granted 01/01/1999

RMA/1999/2891

To the parking and storage of vehicles, plant and working stockpiles of materials. - Historical Reference RES991738

Withdrawn

Applied 14/06/1999

RMA/2010/566

Land Use for Earthworks - Issued 8/06/2010 Change of Conditions: RMA92024700 - Historical Reference RMA92016079

Processing complete

Applied 23/04/2010

Decision issued 08/06/2010

Granted 04/06/2010

RMA/2010/863

RIGHT OF WAY - Historical Reference RMA92016406

Lapsed

Applied 14/06/2010

Decision issued 22/06/2010

Granted 22/06/2010

RMA/2014/1175

Dwelling [Lot 10] - Historical Reference RMA92025818

Processing complete

Applied 19/05/2014

Decision issued 22/05/2014

Granted 21/05/2014

38 Alport Place

RMA/1990/724

To relocate dwelling from 53 Memorial Avenue to 40 Alport Place. - Historical Reference RES9215175

Processing complete

Applied 09/10/1990

Decision issued 28/11/1992

Granted 28/11/1992

RMA/2002/2319

Dwelling addition to the bedroom which intrudes the 4.5m road boundary setback. - Historical Reference RMA20011355

Processing complete

Applied 18/09/2002

Decision issued 23/09/2002

Granted 20/09/2002

42 St Lukes Street

RMA/1973/311

Site a swimming pool in the side of property. - Historical Reference RES953003

Processing complete

Applied 06/08/1973

Decision issued 01/01/1999

Granted 01/01/1999

RMA/1999/2891

To the parking and storage of vehicles, plant and working stockpiles of materials. - Historical Reference RES991738

Withdrawn

Applied 14/06/1999

RMA/2004/2949

Relocatable family flat exceeding 65m². - Historical Reference RMA20018603

Cancelled

Applied 17/11/2004

58 Kotuku Crescent

RMA/1998/209

To erect a dwelling and attached garage which fails to comply with the 35% site coverage, 3m rear yard setback, 3m living area window setback, 20m continuous building length without a 2.4m step in Plan and 4.5m garage setback from the road bo - Historical Reference RES980131

Processing complete

Applied 19/01/1998

Decision issued 30/01/1998

Granted 30/01/1998

RMA/2014/367

Rebuild a single storey dwelling with attached garage - Historical Reference RMA92024974

Processing complete

Applied 18/02/2014

Decision issued 27/02/2014

Granted 27/02/2014

62 Kotuku Crescent

RMA/2002/2001

Dwelling with an attached garage where the outdoor living dimension is less than 6 metres. - Historical Reference RMA20011028

Processing complete

Applied 16/08/2002

Decision issued 30/08/2002

Granted 29/08/2002

64 Kotuku Crescent

RMA/1998/1444

To erect a dwelling and attached garage 20.8 metres in length where the garage is 3.7 metres from the road boundary. - Historical Reference RES981639

Processing complete

Applied 19/06/1998

Decision issued 16/07/1998

Granted 16/07/1998

66 Kotuku Crescent

RMA/1997/2401

To erect a dwelling and attached garage which exceeds the site coverage, intrudes into the 4.5m road boundary setback and the garage exceeds 9m within 1.8m of the internal boundary. - Historical Reference RES972759

Processing complete

Applied 02/10/1997

Decision issued 31/10/1997

Granted 31/10/1997

7 Teal Close

RMA/2000/1094

Dwelling with an attached garage which exceeds the maximum 20 metre building length without a 2.4 metre step in plan. - Historical Reference RMA20001784

Processing complete

Applied 27/04/2000

Decision issued 16/05/2000

Granted 16/05/2000

Data Quality Statement

Land Use Consents

All resource consents are shown for sites that have been labelled with an address. For sites that have been labelled with a cross (+) no resource consents have been found. Sites that have no label have not been checked for resource consents. This will be particularly noticeable on the margins of the search radius. If there are such sites and you would like them included in the check, please ask for the LIM spatial query to be rerun accordingly. This will be done free of charge although there may be a short delay. Resource consents which are on land occupied by roads, railways or rivers are not, and currently cannot be displayed, either on the map or in the list. Resource consents that relate to land that has since been subdivided, will be shown in the list, but not on the map. They will be under the address of the land as it was at the time the resource consent was applied for. Resource consents that are listed as Non-notified and are current, may in fact be notified resource consents that have not yet been through the notification process. If in doubt. Please phone (03)941 8999.

The term “resource consents” in this context means land use consents. Subdivision consents and certificates of compliance are excluded.

Subdivision Consents

All subdivision consents are shown for the sites that have been labelled with consent details. For Sites that have been labelled with a cross (+) no records have been found. Sites that have no label have not been checked for subdivision consents. This will be particularly noticeable on the margins of the search radius. If there are such sites and you would like them included in the check, please ask for the LIM spatial query to be rerun accordingly. This will be done free of charge although there may be a short delay.

The term “subdivision consents” in this context means a resource consent application to subdivide land. Non subdivision land use resource consents and certificates of compliance are excluded.

This report will only record those subdivision applications which have not been completed i.e once a subdivision has been given effect to and the new lots/properties have been established the application which created those lots will not be shown

All subdivision consent information is contained on the map and no separate list is supplied