

SW Periods

/;Office use		DOC ID <u>14/13380</u>	Date Received
Name of CSR			Time received <u>3.30</u>
Fees received \$			
Receipt no			
Tech1 app no <u>SD1400011</u>	RO <u>Genma/Vlad</u>		18 FEB 2014 WHANGAREI DISTRICT COUNCIL
Assess <u>10049</u>	P <u>042293</u>		

Resource consent application - Form 9 RMA

This application for resource consent is made pursuant to Section 88 or 139 of the Resource Management Act 1991 (RMA 1991). Please note that your application will be subject to all other relevant provisions contained within the RMA.

This form is designed to provide Council with your required details, and must be submitted as part of your application. Please note that the public can view all the information provided in your application.

District Plan Rules & Maps, Application Forms & Land Information are available on Council's website www.wdc.govt.nz

If you have spoken to a member of our planning staff about your proposal, enter their name _____

It is important that you fully complete all sections

Please refer to separate application guidance notes

1 Application details

Attended a pre-application meeting ☒ Yes ☐ No

Name of party applying for resource consent (Applicant) CHRISTINE ANNE GERAGHTY

Postal address 41 CONNELL ROAD, R.D. 2, WAIRU

Phone no 09 4320184 Email _____

I hereby apply to Whangarei District Council for

☐ Land use consent (s88)

☒ Subdivision consent (s88)

☐ Certificate of compliance (s139)

☐ Subdivision and land use consent (s88)

This application also includes

☐ Right-of-way (s348)

☐ Easement cancellation (s243)

☐ Amalgamation covenant/condition (s240) (s241)

☐ Consent notice (s221)

☐ Conservation covenant (s114)

☐ Other _____

Description of activity SEPARATION OF TWO EXISTING HOUSE
CURRENTLY ONE ONE TITLE.

Additional consents (i.e. NRC consents)

☐ No additional resource consents are needed for the proposed activity

☐ The following additional resource consents are needed for the proposed activity, and have (or have not) been applied for (give details) _____

Have you applied for a BC or PIM ☐ Yes ☒ No

If yes, state BC or PIM no _____

2 Site detail

Property address 41 CONNELL RD, R.D. 2, WAIRU

Legal description Lot 1 DP 82945 CT 398/1099 Valuation ref 390/10501

District plan environment LOT 1 DP 82945 BKK XIV Property ID _____

3 Ownership (if different from applicant)

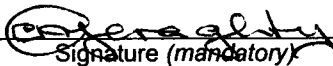
Full legal name of owner _____
 Postal address of owner _____
 Full legal name of occupier _____
 Postal address of occupier _____
 Phone no (owner) _____ Email (owner) _____

4 Agent

Name of agent Lands & Survey Ltd Agent ref 9103
 Postal address of agent P.O. Box 744, Whangarei 0140
 Phone no 4387568 Email mking@landsandsurvey.co.nz

5 Payer (mandatory)

Full legal name of payer CHRISTINE ANNE GERAGHTY
 Postal address of payer 41 CONNELLY ROAD, R.D. 2, WAIPU.
 Phone no 09 4320184 Email _____


 Signature (mandatory)

Sept. 17th '13.
 Date

Bank account details (for refund purposes only) Kiwibank

3	8	-	9	0	1	2	-	0	8	7	3	4	5	9	-	0	0	
Bank			Branch			Account number									Suffix			

6 Address for service/correspondence section

☒ Same as agent's details (✓ if applicable)

Name _____ Ref no _____
 Telephone Business _____ Home _____ Fax _____
 Postal Address _____
 Email _____

7 Application fees

Please refer to Council's Resource Consent Guidance Notes and 'Schedule of Fees & Charges'. You are required to pay an advance fee deposit at time of lodgement. Please refer to Council's Resource Consent Guidance notes, the Schedule of Fees & Charges and the Resource Consent processing Monitoring Fees attached to the guidance notes.

You will be charged a processing fee when Council has reached a decision on your application. Interim billing may also occur on applications. The processing charge covers tasks such as site visits, report preparation, information searches, and input from other Council staff including engineers. Mileage is also charged for.

Please refer to the form titled 'Resource Consent Processing and Monitoring Fees' for a detailed list of the processing and monitoring fees you may be charged. The form lists the current charge out rates. These rates are subject to change and are reviewed every financial year. Please note that the charge out rate may change during the processing of your application and the fees incurred will be charged out at the rate applicable at the time the work is done.

All figures are standard fees inclusive of GST; the final fee in any one application will be determined by the Resource Consents Manager or his/her appointee. Where a consultant is required, Council reserves the right to on-charge costs in accordance with Council's Schedule of Fees & Charges.

By submitting and signing this application form you undertake to pay Council's processing and monitoring fees.

8 Attachment checklist (mandatory requirements are in bold)

- | | | |
|---|---|--|
| ☒ Completed application | ☒ Bank account details | ☒ Assessment of environmental effects |
| ☒ Covering letter | ☒ Advance fee/deposit | ☒ Planning maps/locality maps |
| ☒ Certificate of title | ☒ Building activity or site plans | ☒ Assessment against district plan rules |
| ☒ Written approvals | ☒ Four copies of application | ☐ Engineering report |
| ☐ Iwi consultation | ☐ Landscape assessment | ☐ Ecological report |
| ☐ Other (specify) _____ | | |

Land Surveyors - Subdivisions and Resource Consent Consultants

17 February 2014

The Resource Consents Manager
Whangarei District Council
Private Bag
WHANGAREI

Our Ref: 9103

Dear Sir,

PROPOSED SUBDIVISION – C.A. GERAGHTY, 41 CONNELL ROAD, WAIPU

The attached Notification and Consideration reports for the proposed subdivision are submitted with reference to the Resource Management Act 1991 and Amendments ("the Act"), and form part of the Resource Consent application. Also attached are the following relevant documents:

- Cheque for \$1500.00 being Council's lodgement fee
- Resource Consent application form
- Application plans
- District Plan maps
- Cadastral map
- Aerial photograph
- Computer Freehold Register
- Written Approvals
- NES/HAIL Checklists
- WDC Robin Rawson email
- NRC letter
- Shell NZ Ltd report

EXISTING SITUATION

Legal Description:	Lot 1 DP 82945
Computer Freehold Registers:	NA 39B/1099
Owner:	C. A. Geraghty
Site Address:	41 Connell Road, Waipu
Area:	8730 m ²
Topography:	Flat
Existing Buildings:	Two dwellings, accessory buildings
Current Land Use:	Rural lifestyle
Zone & Type of Application:	Countryside Environment, non complying activity
Proposal:	Lot 1 – 1700 m ² , Lot 2 – 4860 m ² , Lot 3 – 2170 m ² (Esplanade Reserve)

We therefore request that the Council approve the subdivision Resource Consent application.

If in the processing of this application you wish to discuss any part of it or require further information, please do not hesitate to contact us. If I am not available, please contact Mike Elrick / Lance Newby of our office.

We also request that the draft Resource Consent be forwarded to use for consideration before the consent is signed. Thank you.

Yours faithfully

LANDS & SURVEY

A handwritten signature in cursive script that reads "A. Marie King".

A.M. KING
Environmental Planner

Encl.

NOTIFICATION ASSESSMENT: NON COMPLYING ACTIVITY

1. Consent Application

Agent: Our Reference:	Lands & Survey Ltd, Maria King 9103
Date of Report:	17 February 2014
Applicant:	C.A. Geraghty
Application:	The applicant seeks subdivision approval to create 2 allotments, each with an existing dwelling, and an Esplanade Reserve. The proposed lot sizes require assessment and consideration as a non complying activity under Rule 73.3.1 <i>Allotment Area</i>.
Property Address:	41 Connell Rd, Waipu
Legal Descriptions:	Lot 1 DP 82945
Computer Freehold Register:	NA39B/1099
Area:	8730 m ²
Environment:	Countryside - District Plan Map 19
Other Notations:	Nil - Resource Area Map 19
Hazards:	Nil

2. The Proposal

The proposal consists of a subdivision of land legally described above to create Lot 1 (1700 m²) and Lot 2 (4860 m²).

There is an existing fully serviced dwelling, driveway and associated accessory buildings on each proposed lot. None of those arrangements will be altered by the subdivision. Please note that the existing effluent treatment system will easily fall within the proposed boundaries of each allotment.

Lot 3 is proposed as an Esplanade Reserve to Vest (2170 m²). Please find attached an email from Robin Rawson of the WDC to Mike Elrick of Lands and Survey Ltd stating the Council's preference for an esplanade reserve with a uniform width of 15 m. The email states that "The esplanade reserve would be a strategic part of the future parks network around the Waipu growth node, and provide recreational and natural values." As such, we submit that the proposed subdivision although non complying, will result in the creation of the Esplanade Reserve which otherwise would not be in place at this time.

The subdivision has been designed to compliment the mixed density rural character of the surrounding area and to reflect the existing land use activities on the subject site.

3. Reasons for Consent

Rule 73.3.1 – Allotment Area The District Plan requires every proposed allotment to have a minimum net site area of 20.0ha in order to meet the standards for assessment as a controlled activity in the Countryside Environment. Additional standards and terms are identified in order for subdivision to be considered a discretionary activity. Most specifically, the proposed lot sizes must meet the 4.0 ha minimum average net site area requirement for a discretionary activity.	The proposal does not meet the controlled nor the discretionary activity rules, and requires assessment and consideration as a non complying activity. The following assessment criteria for the assessment of discretionary activities are likely to be relevant in the consideration of this application: These matters are: i. The matters over which control is reserved; and ii. The likely location of future rural and urban development, including the effects of sporadic subdivision and ribbon development and effects on the efficient provisions of infrastructure and services; and iii. The potential effects of the type and density of subdivision and development on rural amenity, landscape, open space, heritage value, ecological values, riparian management, and the natural character of the rural and coastal environment; and iv. The cumulative effects of subdivision and development on the environment and on the provision of infrastructure and services; and v. The risks from natural hazards.
Rule 73.3.7(b) Property Access requires that vehicular access to a road is shared where there are 2 or more allotments in the subdivision.	The proposal presents a technical infringement to this rule, as each proposed allotment will have a separate existing access. This infringement requires assessment and consideration as a restricted discretionary activity. Matters of discretion are identified under Rule 73.3.7(b) <i>Property Access</i> within the District Plan.

The proposal is submitted as a non complying subdivision. We submit that it complies with the land use environment rules in Chapter 38.

Resource Area Map 19 does not indicate any Resource Areas on the subject site. Please note that given that each proposed allotment has an existing dwelling, any reference to Flood Susceptibility on adjoining land has already been addressed.

The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES Contaminated Soils) took effect on 1st January 2012 which must be implemented in accordance with the RMA 1991. The standards are applicable if the land in

question is, or has been, or is more likely than not to have been used for a hazardous activity or industry and the applicant proposes to subdivide or change the use of the land, or disturb the soil, or remove or replace a fuel storage system. Please find attached a letter from NRC (dated 16 July 2012) and a report Shell NZ Ltd Waipu Fertiliser Plant Rank Removal Validation (dated September 2005), stating that a single underground petroleum storage tank containing diesel was on the subject site and has been removed. As such, the completed NES and HAIL Checklists are attached, and no further action is considered necessary.

Overall, the application is considered to be a non complying activity.

4. Site and Surroundings

The site is bounded to the north and west by Connell Road and to the east by the Pohuehue Stream, and consists of flat land.

Two dwellings and associated accessory buildings are located in the site.

The surrounding area is characterized by mixed density rural properties.

5. Statutory Context

Pursuant to Sections 95A-95F a consent authority may, using its discretion, make a decision whether to notify an application for resource consent. In determining the notification decision the consent authority must firstly have regard to the likely adverse effects on the environment of the proposal and secondly whether any persons are considered to be adversely affected by the proposal.

If the consent authority decides that the adverse effects on the environment may be more than minor, it must notify the application. If the decision has been made that the effects will not be more than minor, the consent authority must then identify any persons adversely affected by the proposal to determine whether limited notification is required.

Notwithstanding the above, if special circumstances exist in terms of Section 95A of the Act, if the applicant requests notification, or a rule in a Plan or Proposed Plan expressly provides that such an application should be publicly notified, then the application must be notified.

6. Adverse Effects of the Environment

For the purposes of Section 95A(2), in determining whether the adverse effects are minor or more than minor the Consent Authority must disregard any effects –

- on persons who own or occupy the subject site; and
- on persons who own or occupy any land adjacent to the subject site; and
- that does not relate to a matter over which controlled is reserved; and
- of trade competition; and
- on any person who has given their written approval to the proposal; and
- if the plan or National Environmental Standard permits an activity with that effect (i.e. the permitted baseline principle).

In accordance with the above, it is noted that applicant has provided the written approvals from the adjoining properties, which are discussed in Part 7.0 of this report.

Character and Amenity Values

In order to assess the character of the area, it is considered appropriate to refer to the District Plan (section 5.2) description for the Countryside Environment. The District Plan states:

The Countryside Environment tends to be used predominantly for primary production, but also for low-density residential purposes. When choosing to live in a rural area, people must expect and accept a certain level of odour, noise and other effects which are characteristic of primary production, recognising the scale

and intensity of these activities which contribute to rural character. Rural areas do, however, tend to have high amenity values, due primarily to the following characteristics:

- *The intermittent nature of most agricultural activities*
- *Open landscapes and views*
- *A low intensity of development*
- *Feelings of remoteness and community*
- *Low noise levels, particularly at night*
- *A high degree of privacy*
- *Daylight and sunlight access*
- *Low levels of vehicular traffic*
- *Green 'unspoiled' landscape with indigenous vegetation*

We submit that the proposed subdivision will result in each existing dwelling being on a separate land title. As such, it is considered that the effects of the two dwellings already exist and are compatible with the above characteristics. The surrounding area consists of a variety of similar sized allotments ranging from several lots of approximately 4000 m², and some quite large allotments of 4.0 ha and 9.0 ha. It is considered that the proposal will create a density pattern easily absorbed by that receiving environment.

Given that the proposed density will be similar to the surrounding area, we do not consider that the proposal is sporadic subdivision nor ribbon development.

No more than minor adverse effects.

Traffic Safety

Although access is not shared (restricted discretionary), access to each allotment is existing and allows for safe vehicle movements.

No more than minor adverse effects.

Hazards

There are no known hazards affecting the two dwellings.

No more than minor adverse effects.

Water

Existing for each dwelling.

No more than minor effects.

Wastewater/Stormwater

Existing for each dwelling.

No more than minor adverse effects.

Having regard to the overall intensity and scale of the activity, the adverse effects are considered to be no more than minor.

7. Adversely Affected Parties

A consent authority must decide that a person is an affected party if the proposal will have minor or more than minor adverse effect on them. Conversely, the consent authority must not decide a person is an affected party if that person has given their written approval to the proposal (and not withdrawn it) or it unreasonable in the circumstances to seek that person's written approval.

For the purposes of Section 95E, in determining whether a person is adversely affected by a proposal the Consent Authority must disregard any effects –

- if the Plan or National Environmental Standard permits an activity with that effect (i.e. the permitted baseline principle); and
- that does not relate to a matter over which it has restricted its discretion.

The applicant has provided the following written approvals in support of the application:

J.H. Geraghty & D.A. Geraghty
G. & E. Powell
R.J. McKay
L. & N. Buck

No further parties are considered possibly adversely affected by the proposal.

8. Other Considerations

There are considered to be no special circumstances to warrant public notification in terms of Section 95A(4) of the Act.

9. Conclusion

That pursuant to Sections 95A-95F of the Act, we consider that this application proceed on a non-notified basis because:

- (i) The adverse effects on the environment will be no more than minor because the proposal involves creating a land title around each existing dwelling, and will be compatible with the pattern and density of the immediate surrounding development; and
- (ii) No additional cumulative effects will be created other than currently exists; and
- (iii) Written approvals from adjoining properties have been submitted; and
- (vi) There are no special circumstances to warrant public notification.

CONSIDERATION ASSESSMENT: NON COMPLYING ACTIVITY

1. Processing Details

Agent: Lands & Survey Ltd, Maria King
Our Reference: 9103
Date of Report: 17 February 2014
Applicant: C.A. Geraghty
Property Address: 41 Connell Rd, Waipu

2. Application Details

The application details, including the proposal have been detailed in Sections 1 and 2 of the attached Notification Assessment. In addition, the reasons for consent, and the application site and the surrounding environment have been detailed in Sections 3 and 4 respectively of the attached Notification Assessment.

3. District Plan Environment and other Notations

The District Plan environment and other notations affecting the site have been detailed in Section 3 of the attached Notification Assessment.

4. Statutory Context

Section 104 of the Act sets out those matters that, subject to Part II, a Consent Authority must have regard to when considering an application for resource consent. These matters include any actual or potential effects on the environment of allowing the activity, any relevant provisions of a Plan or Proposed Plan, and any other matter the Consent Authority considers relevant and reasonably necessary to determine the application.

Pursuant to Section 104B of the Act, after considering an application, and if it grants the application, may impose conditions under Section 108 of the Act.

5. Actual or Potential Effects on the Environment (Section 104(1)(a))

Section 104(2) of the Act allows the Consent Authority to disregard an adverse effect of the activity on the environment if the Plan permits an activity with that effect (i.e. the permitted baseline principle). This matter has particular relevance to the subdivision proposal, as there are two existing dwellings with existing effects on the subject site. The subdivision will simply result in a land title for each dwelling.

Section 104(3)(b) of the Act requires that no consideration may be had of any effect on a person who has provided their written approval to the application. Written approvals have been provided as part of this application, as addressed in Section 7 of the Notification Assessment.

The adverse effects of this activity have been addressed in Section 6 of the Notification Assessment. This assessment also applies to this consideration.

Overall, the effects of the activity are considered to be no more than minor because the proposal involves two existing dwellings with existing effects. The proposed two land titles will have the same effects, and are considered to be consistent with the scale and intensity of existing development within the surrounding area.

6. Relevant Provisions of the Plan (Section 104(1)(b))

The relevant objectives and policies of the Operative District Plan are detailed as follows:

SUBDIVISION AND DEVELOPMENT

Objective 8.3.1 - *Subdivision and development that achieves the sustainable management of natural and physical resources whilst avoiding, remedying or mitigating adverse effects on the environment.*

We consider that the supporting engineering report contains recommendations which will mitigate any adverse effects on the environment.

Objective 8.3.2 - *Subdivision and development that does not detract from the character of the locality and avoids conflicts between incompatible land use activities.*

The proposed allotments will each be sufficiently large in area to ensure compatibility with the mixed density rural pattern of the surrounding area. This in turn will avoid incompatible land use activities.

Objective 8.3.4 – *Subdivision and development that provides for the protection of, and where appropriate enhances, the District's:*

- *versatile soils;*
- *mineral resources;*
- *water quality;*
- *nature features;*
- *landscapes (including coastal landscapes);*
- *open spaces;*
- *significant ecological area;*
- *biodiversity;*
- *public access to coast, lakes and rivers;*
- *historic, cultural and amenity values, including the cultural values of tangata whenua*

Lot 3 is proposed as an Esplanade Reserve to Vest. We reiterate that this is a significant positive effect from the proposed subdivision.

Objective 8.3.5 – *Subdivision and development that allows for the efficient and orderly provision of services and infrastructure, including the roading hierarchy and airport.*

Vehicle access and servicing are existing and will not be altered by the proposed subdivision.

Objective 8.3.7 - *Subdivision and development that provides for comprehensive development of land with a range of allotment sizes and is appropriate to the character of the Environment in which it is located.*

The proposed lot sizes will vary in size which is considered to be appropriate within the mixed density rural character of the surrounding area.

Policy 8.4.3 Density of Development

To ensure that subdivision and development results in a pattern and density of land use, which reflects flexibility in allotment size, and is of a density appropriate to the locality.

The subdivision proposal has been designed to reflect the two existing dwellings on the site.

Policy 8.4.4 Cumulative Effects

To ensure that the cumulative effects of on-going subdivision and development do not compromise the objectives and policies of this Plan, in particular those objectives and policies relating to reducing conflicts between incompatible land use activities, the consolidated and orderly development of land and the density of development.

The proposed subdivision is considered to be an orderly development of the land. The proposed lot sizes will be compatible with those existing in the surrounding area and reflect the location of the two existing dwellings.

Policy 8.4.7 Design and Location

To ensure subdivision and development is designed and located so as to avoid, remedy or mitigate adverse effects on, and where appropriate, enhance:

- *Landscape values;*
- *Ecological values; and*
- *Amenity values and sense of place.*

Given that the two dwellings already exist, any effects on the surrounding amenities also already exist.

AMENITY VALUES

Objective 5.3.1 - *The characteristic amenity values of each Environment are maintained and, where appropriate enhanced.*

We consider that the design of the subdivision will not compromise the characteristic amenity values of the Countryside Environment.

Objective 5.3.5 - *The actual or potential effects of Subdivision use and development is appropriately controlled and those activities located and designed, are to be compatible with existing and identified future patterns of development and levels of amenity in the surrounding environment.*

Policy 5.4.1 Effects on the Local Environment

To ensure that activities do not produce, beyond the boundaries of site, adverse effects that are not compatible with the amenity values characteristic of the surrounding and/or adjacent environment unless, such effects are authorised by a district plan, a designation, a resource consent or otherwise. The following effects should be given particular consideration in this respect:

- *Visual Amenity*

Where internalisation of effects cannot be wholly achieved, the Council will consider a Vest Practicable Option approach.

Policy 5.4.5 Countryside Environments

To ensure rural amenity values in the Countryside Environments are protected from subdivision, use or development that is sporadic or otherwise inappropriate in character, intensity, scale or location.

The proposed subdivision is not considered to be inappropriate in character, intensity, scale and location, nor is it considered to be sporadic development.

Policy 5.4.7 Intensity and Design of Subdivision and Development

To ensure that subdivision and development do not unduly compromise the outlook and privacy of adjoining properties, and should be compatible with the character and amenity of the surrounding environment. Particular regard should be given to:

- *The layout and intensity of subdivision;*
- *The location, design and siting of buildings and structures except, where such buildings and structures provide a specific service for the surrounding environment. In the latter case, any building or structure shall be designed, laid out and located, so as to avoid, remedy or mitigate any adverse effects on the environment.*

The extent of proposed Lots 1 and 2 includes the activity area of each dwelling, and especially includes the effluent disposal facility within each allotment.

LANDSCAPES

Policy 16.4.3 Notable Landscapes

Landscapes having a sensitivity rating of 6 are regarded as 'notable' and should be protected against inappropriate subdivision, use and development.

Policy 16.4.6 Buildings and Structures

To ensure that buildings and structures are of a scale, design and location that, where possible, avoids adverse visual effects on landscape character and values, and otherwise mitigates such adverse effects to the maximum extent practicable.

Policy 16.4.7 Ridgeline

To ensure that buildings and structures within Outstanding and Notable Landscapes avoid locating upon, or intruding above, ridgelines, where this results in adverse visual effects which cannot be mitigated or remedied, or unless there is functional need for location on the ridgeline.

Policy 16.4.8 Roads

To ensure that roads and vehicle accesses are aligned and formed in such a way that they do not disrupt the visual coherence of:

- *Notable landscapes*

Policy 16.4.9 Earthworks

To ensure that adverse visual effects of earthworks scarps on outstanding natural features and landscapes are avoided and that the adverse visual effects on notable landscapes, coastal landscapes and other landscapes are avoided, remedied or mitigated far as practicable, by encouraging re-vegetation of the earthworks scarps.

Policy 16.4.10 Indigenous Vegetation

To protect vegetation, which contributes to the character and visual quality of landscapes from inappropriate subdivision, use and development.

SUMMARY

The amenity values of the area are those associated with mixed density rural development, and the proposal will enhance that character. Each proposed allotment already has an existing fully serviced dwelling and driveway.

The proposal satisfies the relevant objectives and policies, whilst the adverse effects of the proposal area considered to be no more than minor.

The proposed Esplanade Reserve will be created as part of the subdivision, and will provide recreational and natural values to the parks network around the Waipu growth area.

7. Other Relevant Matters (Section 104(1)(c))

In terms of Part 2 of the RMA, it is important to ensure that a proposed subdivision meets the purpose of the Act (Section 5), which promotes sustainable management of natural and physical resources.

Section 6 of the Act highlights matters of national importance that regard shall be had to in order to achieve the purpose of the Act.

Section 7 of the Act lists other matters that particular regard shall be given to in order to achieve the purpose of the Act. The matters that relate to the proposed activity include: The efficient use and development of

natural and physical resources; the maintenance and enhancement amenity values and maintenance and enhancement of the quality of the environment.

The proposed 2 lot subdivision is considered to be appropriate in accordance with the rules, objectives and policies of the District Plan. The effects will be no more than minor because the proposal is consistent with the scale and intensity of development within the surrounding environment. Any effects of this subdivision are generally considered to be existing, therefore this proposal can be considered to be in accordance with the purpose of the Act. The proposed Esplanade Reserve will significantly benefit the wider surrounding community.

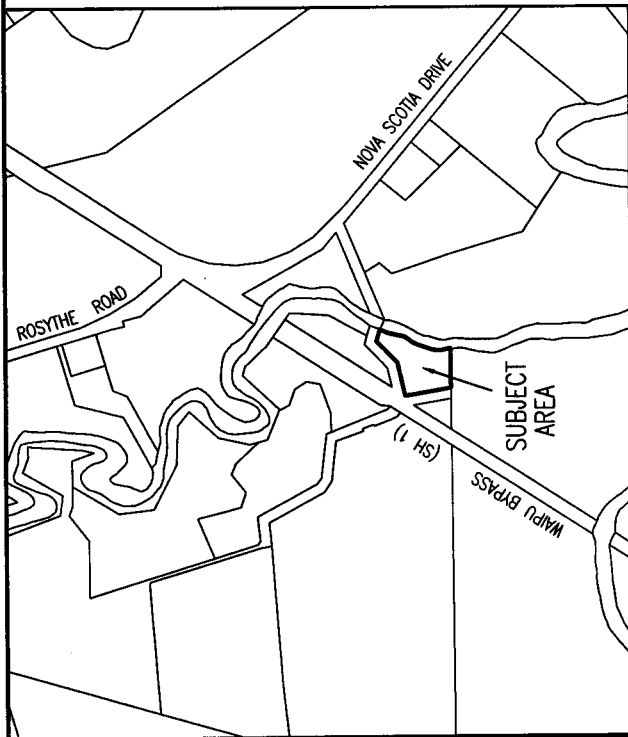
8. Conclusion

Having considered the application against the relevant provisions of the Act, we request that this application be granted.

In this instance, we consider that it would be **beneficial for the draft conditions to be forwarded to us for comment before the Resource Consent is signed.** Thank you.

A handwritten signature in black ink, reading "A. M. King". The signature is written in a cursive, flowing style.

A. M. KING



LOCALITY DIAGRAM
Scale 1:10000

NOTES:
Areas and distances are approximate only and subject to survey.
Building Setbacks are 4.5m from all road boundaries, one boundary at 1.5m and 3m from all other boundaries.
Total Area: 8730m²
Comprised In: CT39B/1099

VERSION	DATE	DESCRIPTION

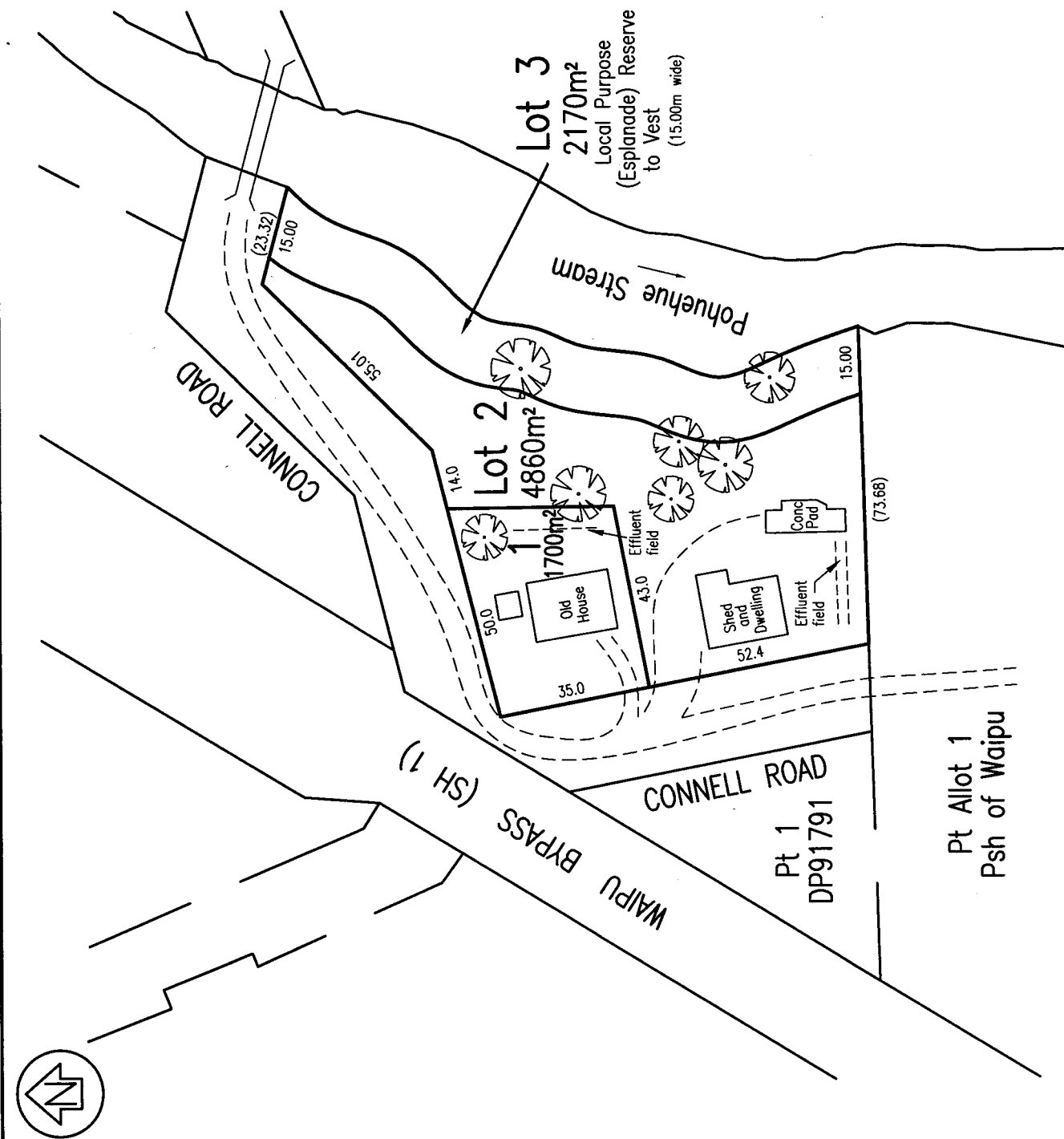


LAND & ENGINEERING SURVEYORS
RESOURCE MANAGEMENT CONSULTANTS
CADASTRAL & TOPOGRAPHICAL MAPS
TOURIST & AERIAL MAPS
GPS & SPATIAL INFORMATION SERVICES
HARRISON PT Box 744, 33 Okeana Street, 1st flr 400 7000 Fax 08 432 4227
DUNEDIN (New) 87 Victoria Street, 1st flr 400 8001 Fax 08 432 4227
(Incorporating HODGES & ELRICK LTD)

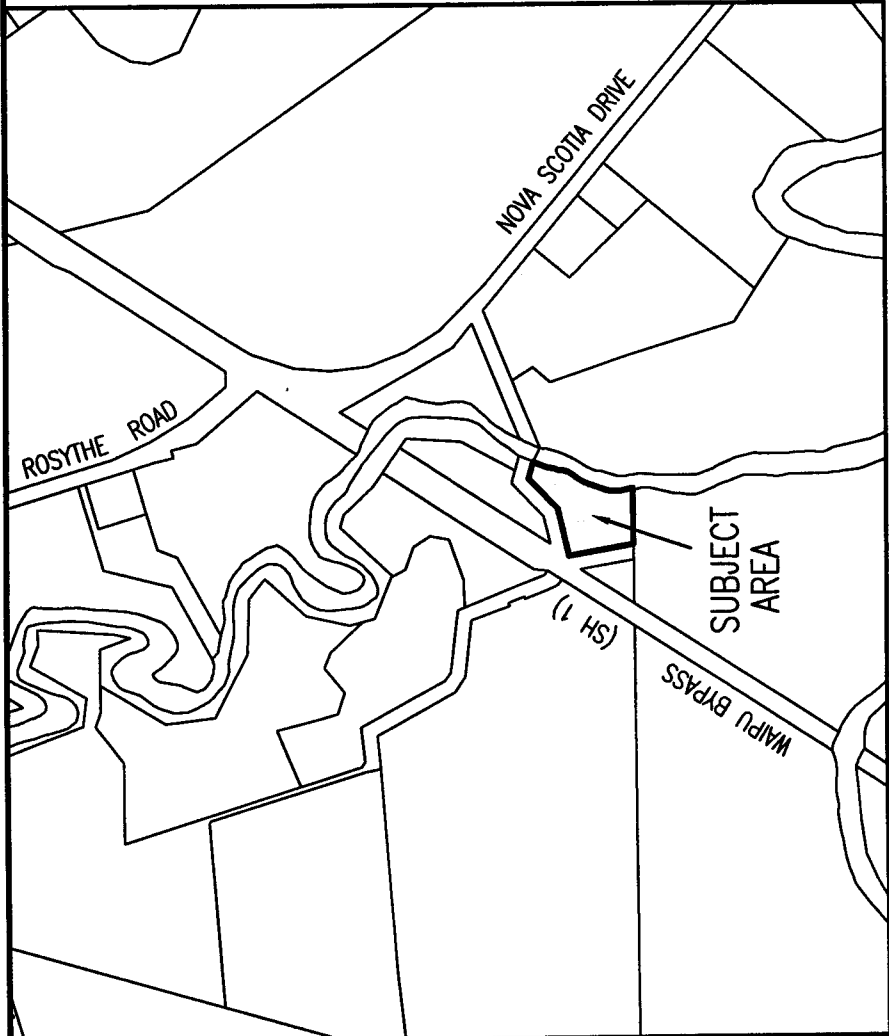
Proposed Subdivision of Lot 1 DP82945

Prepared for:
CA Geraghty

DRAWN	M Elrick	CHECKED	M Elrick	SCALE	1:1000 (A3)
TWEXED	K Hansard	DATE	Feb 2014	SHEET	1 of 1
					REF 9103/1/1A



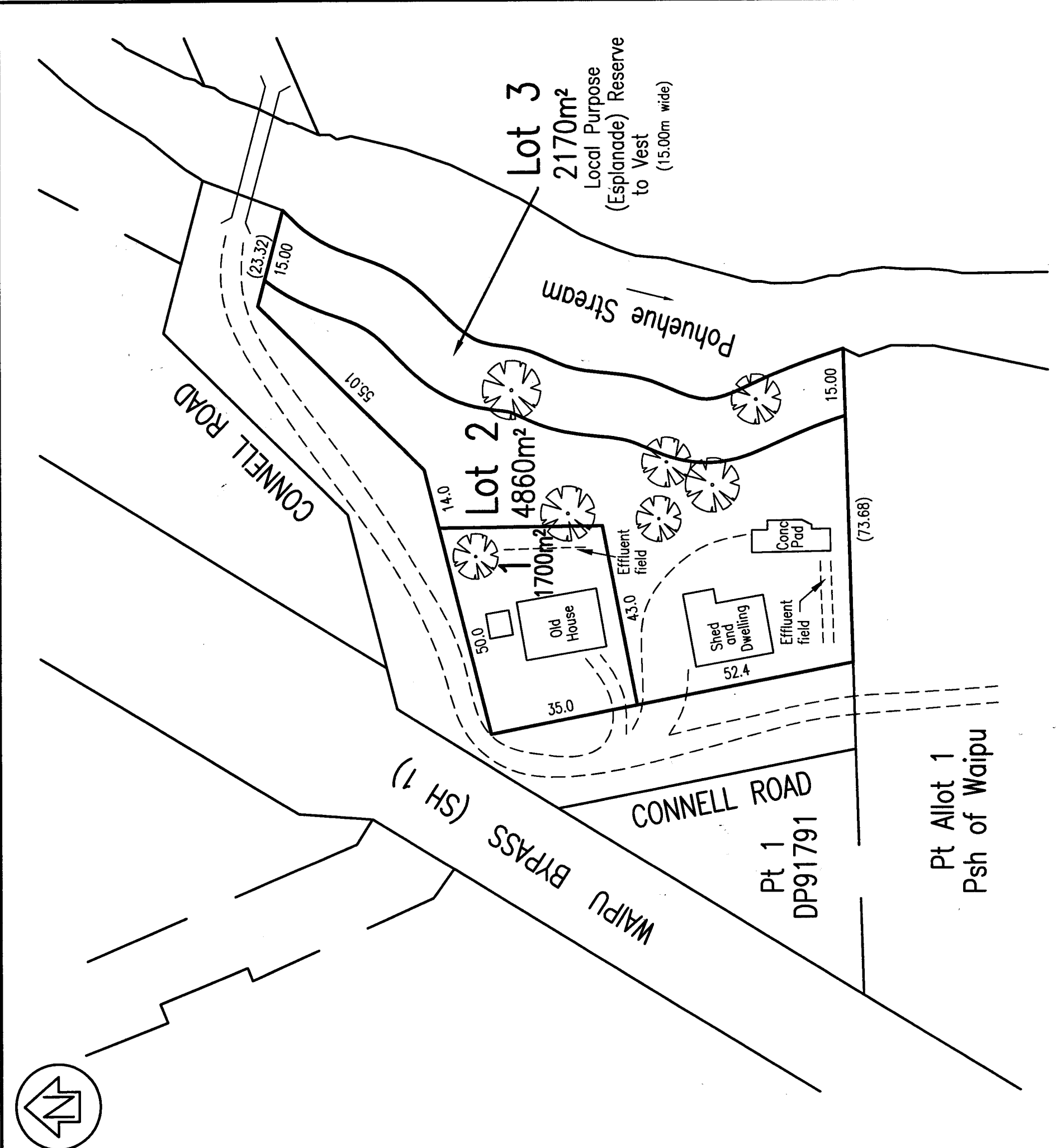
SHEET
1



LOCALITY DIAGRAM
Scale 1:10000

NOTES:
Areas and distances are approximate only and subject to survey.
Building Setbacks are 4.5m from all road boundaries, one boundary at 1.5m and 3m from all other boundaries.
Total Area: 8730m²
Comprised In: CT39B/1099

VERSION	DATE	DESCRIPTION



Proposed Subdivision of Lot 1 DP82945

Prepared for:
CA Geraghty

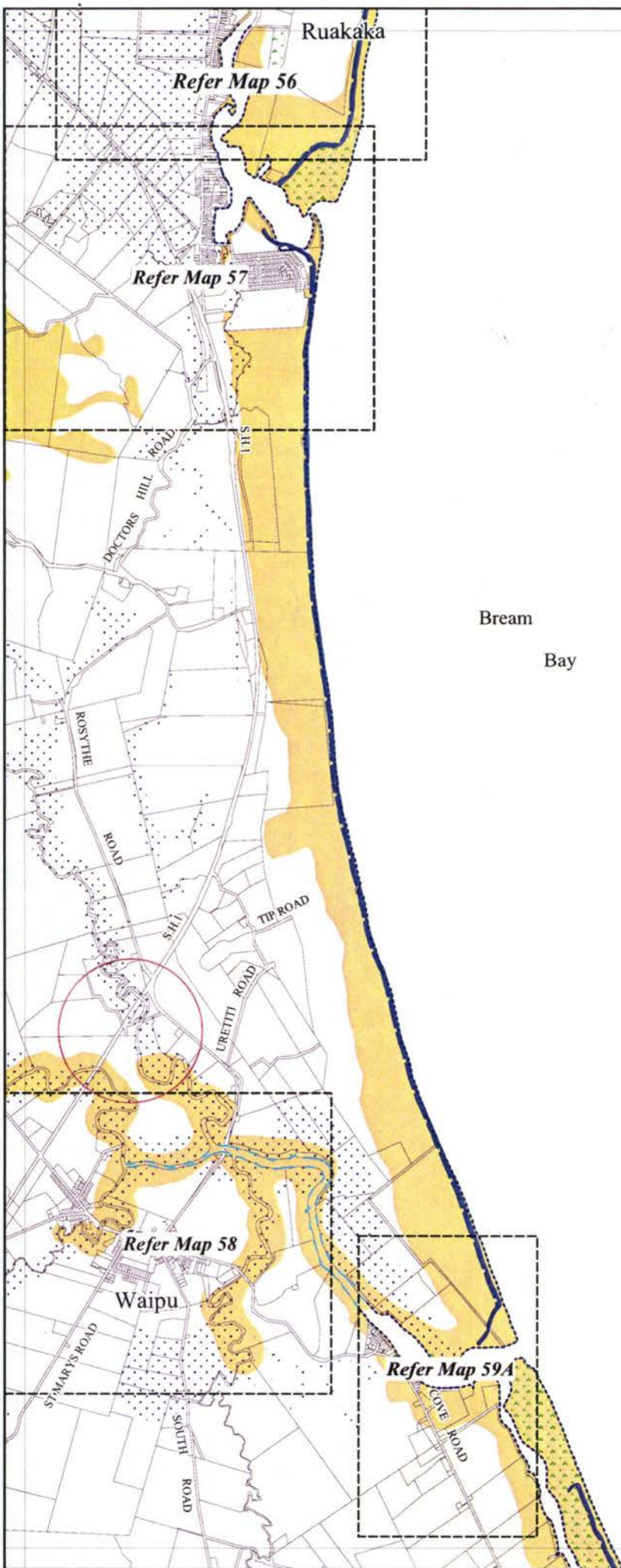
DRAWN	M Elrick	CHECKED	M Elrick	SCALE	1:1000 (A3)	SERIES	1 of 1
TRACED	K Hansard	DATE	Feb 2014	REF	9103/1/1/A	SHEET	

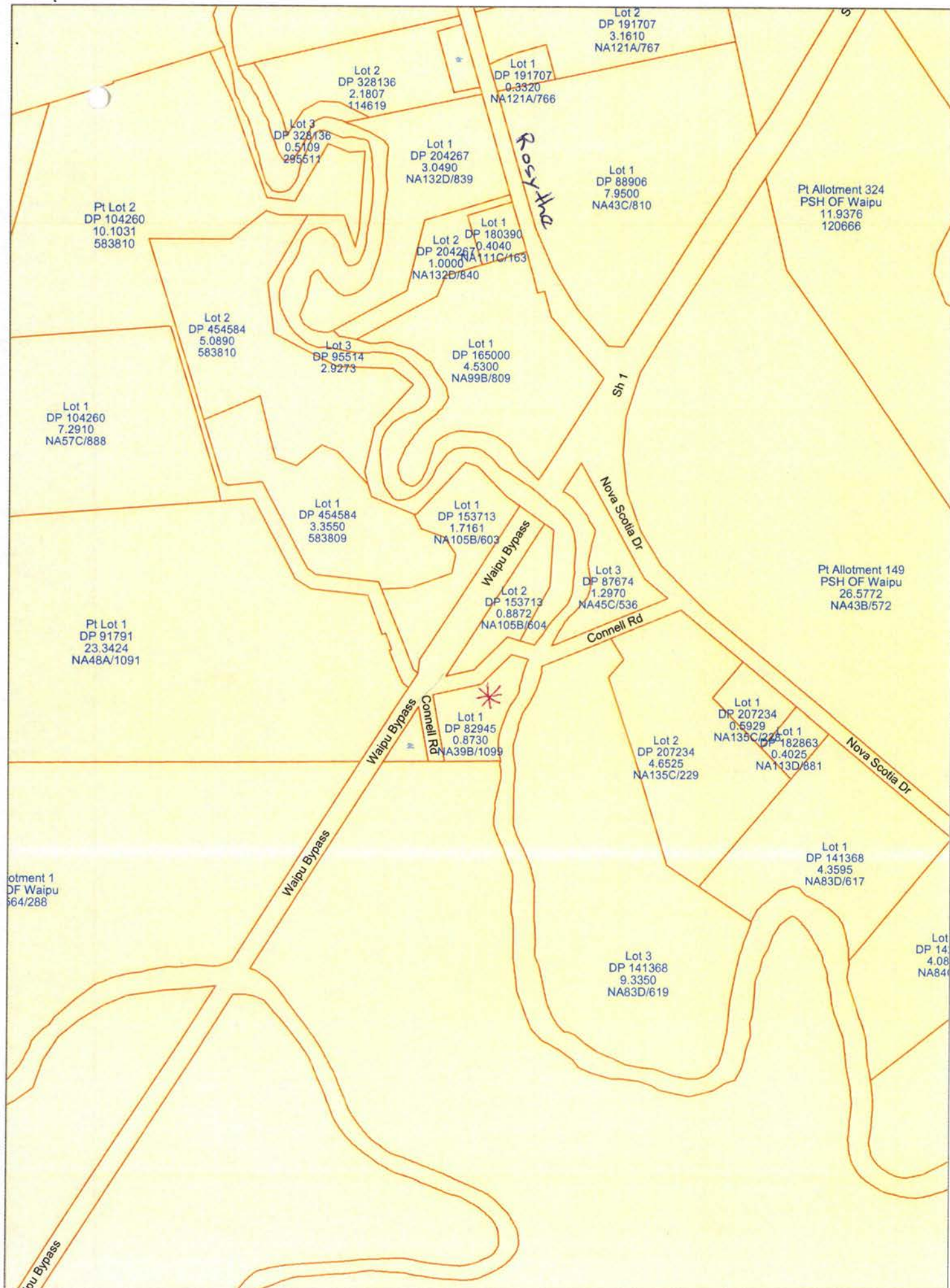
LAND & ENGINEERING SURVEYORS
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WIMBORNE PO Box 744, 33 Clyde Street, Tel 09 438 7588 Fax 09 438 4227
DUNEDIN (New) 87 Victoria Street, Tel 09 439 8034 Fax 09 438 8887

(Incorporating HODGES & ELRICK LTD)









Google earth

feet 600
meters 100

Google earth

1.0.0.0



**COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952**



R. W. Muir
Registrar-General
of Land

Search Copy

Identifier NA39B/1099
Land Registration District North Auckland
Date Issued 11 May 1978

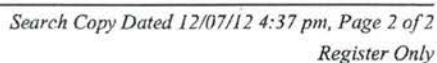
Prior References
NA35B/375

Estate Fee Simple
Area 8730 square metres more or less
Legal Description Lot 1 Deposited Plan 82945

Proprietors

Christine Anne Geraghty as to a 1/2 share
Douglas Andrew Patrick Geraghty and John Hasson Geraghty as to a 1/2 share as Executors

Interests



Mike Elrick

From: Robin Rawson [robinr@wdc.govt.nz]
Sent: Thursday, 17 October 2013 10:57 a.m.
To: Mike Elrick
Cc: Paul McDonald
Subject: Esplanade reserve issues
Follow Up Flag: Follow up
Flag Status: Red

Good morning Mike

Subdivision at Connell Road Waipu

Paul McDonald's preference is for an esplanade reserve with an average width of 15 metres rather than an esplanade strip in this location. The esplanade reserve would be a strategic part of the future parks network around the Waipu growth node, and provide recreational and natural values.

If the esplanade reserve is to be other than a uniform 15 metres width, we would need further information provided on the topography and ground conditions to assess if the layout was suitable.

Subdivision at Maunu Road

A site visit is needed to consider this. Am I able to visit the site either tomorrow or Monday?

Thanks
Robin

Robin Rawson
Group Planner | Whangarei District Council
Private Bag 9023 | Whangarei 0148 | www.wdc.govt.nz
P: 09 430 4230 ext 8378 | E: robinr@wdc.govt.nz

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30/10/2013

DP 204201
1.0000
K F Skynner
N A Skynner
Subject to the provisi more...

Lot 2
DP 454584
5.0890
Rosyth Farm Limited

Lot 3
DP 95514
2.9273
Local Purpose Reserve more...

Lot 1
DP 165000
4.5300
I S J Tricker

Lot 1
DP 104260
7.2910
J I Ulrich
I M Ulrich
P Mrsich

Lot 1
DP 454584
3.3550
D P Tiller

Lot 1
DP 153713
1.7161
A A Hamilton

Lot 2
DP 153713
0.8872
Jansi Corp Limited

Lot 3
DP 87674
1.2970
C R Adams

Pt Lot 1
DP 91791
23.3424
A J Ulrich
N M Bradley

LG + NG
Buck

Lot 1
DP 82945
0.8730
C A Geraghty
D A P Geraghty
J H Geraghty

Lot 2
DP 207234
4.6525
RRMO Limited

Lot 2
DP 207234
0.5
B R I

R.J. McKay
K.S. Hanna
P.J. Cooper

Lot 3
DP 141368
9.3350
G F Powell
E C Powell

ment 1
Waipu
cKay
anna
super

PART C - To be completed by the party giving approval

If giving approval, please only sign and date below once you have carefully read and understood all seven (7) notes below

Please answer all questions fully

Name of party giving approval JOHN HASSAN GERAGHTY AND DOUGLAS ANDREW GERAGHTY
being the owner/occupier of the property below (please identify which)

Property address(including legal description) LOT 1 DP82945 BLK XIV
RUAHIKA RD.

Postal address 55 QUEENS RD, NEW PLYMOUTH 4312

Phone(daytime) 06 7592150 Fax _____

Email _____

1 I am/we are the ☒ owner(s) ☐ occupiers of the property (please ✓)

2 Please note - In most instances Council will require the approval of the legal owners and the occupiers of the affected property

Do you have authority to sign on behalf of any person ☐ Yes ☒ No

Who do you have authority to sign on behalf of ☐ all the owners ☐ all the occupiers

3 I/we understand that the aspects of non-compliance with the Operative District Plan to which I/we are giving my/our written approval are as follows

- a _____
- b _____
- c _____

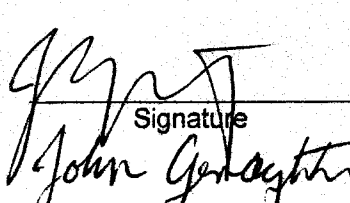
(continue on separate page if necessary)

Have you attached a separate page(s) to this form ☐ Yes ☒ No

If yes, how many pages have you attached _____

- 4 I/we confirm that I/we understand and have signed and dated the plans of the proposal and the assessment of environmental effects prepared by the applicant and the relevant rules of the Operative District Plan, and have attached the signed documents to this form.
- 5 I/we understand and accept once I/we give my/our approval the Consent Authority (Council) cannot take account of any actual or potential effect of the activity and/or proposal upon me/us when considering the application and the fact that any such effect may occur shall not be relevant grounds upon which the Consent Authority may refuse to grant the application.
- 6 Further, I/we understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.
- 7 I/we understand the eight (8) notes included on the front of this form.

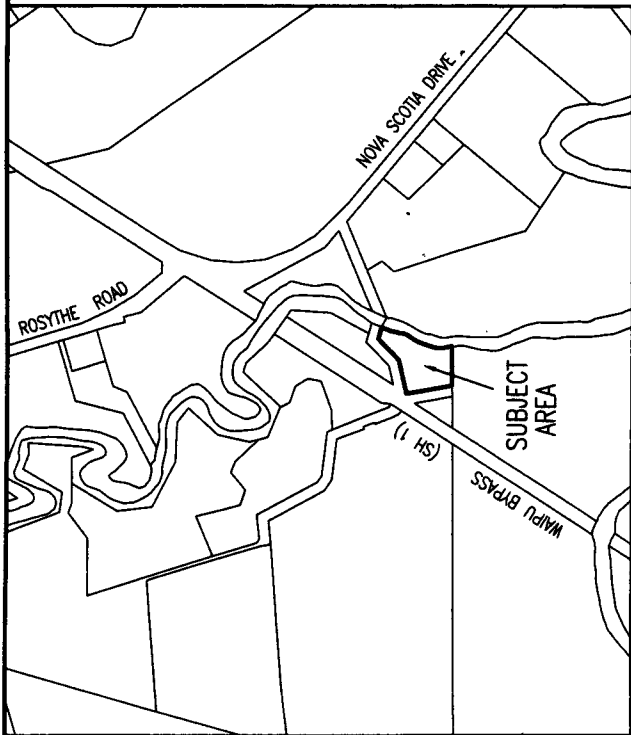
All owners and occupiers of the property must give their written approval by signing and dating below


Signature
John Geraghty

7-5-13
Date


Signature
DAP GERAGHTY

7/5/13
Date



LOCALITY DIAGRAM

Scale: 1:10000

John Geraghty
7-5-2013

DR. GERAGHTY
15/13

NOTES:

Areas and distances are approximate only and subject to survey.

Building Setbacks are 4.5m from all road boundaries, one boundary at 1.5m and 3m from all other boundaries.

Total Area: 8730m²

Comprised in: CT398/1099

VERSION	DATE	DESCRIPTION



LAND & ENGINEERING SURVEYORS
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CADASTRAL & TOPOGRAPHICAL MAPS
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GPS & SPATIAL INFORMATION SERVICES
UNIVERSITY OF THE SOUTH ISLANDS
DUNEDIN (PH) 03 478 2000 FAX 03 478 2007
DUNEDIN (MOB) 021 478 2000 FAX 03 478 2007

Proposed Subdivision of Lot 1 DP82945

Prepared for:

CA Geraghty

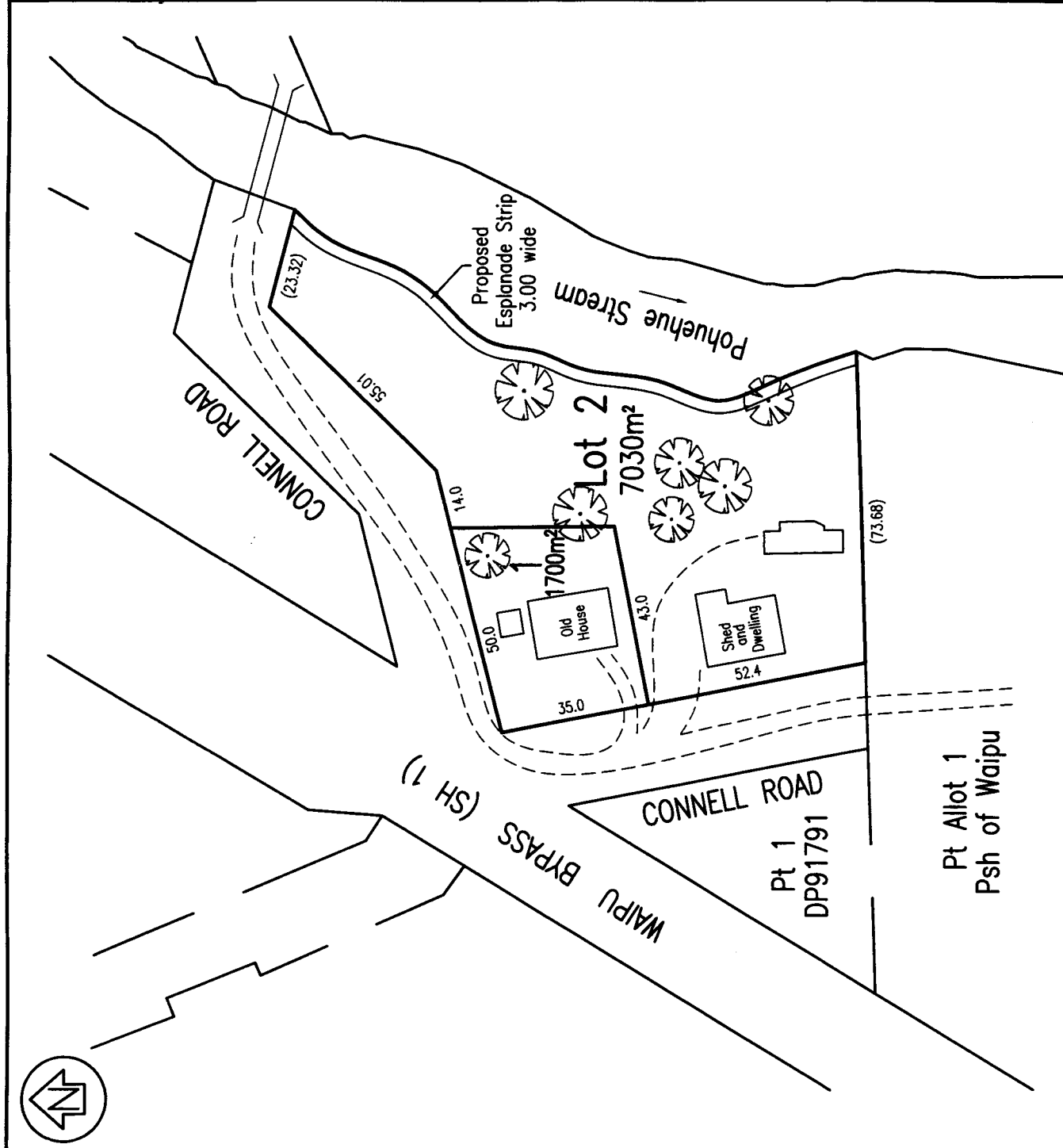
DRAWN M. Elrick

CHECKED M. Elrick

SCALE 1:10000

SHEET 1 of 1

1



PART C - To be completed by the party giving approval

If giving approval, please only sign and date below once you have carefully read and understood all seven (7) notes below

Please answer all questions fully

Name of party giving approval Grant & Eileen Powell
being the owner/occupier of the property below (please identify which)

Property address(including legal description) Lot 3 BP14368

Postal address 11 CONNELL ROAD RD 2 WAIPU

Phone(daytime) 4320779 Fax _____

Email _____

1 I am/we are the ☒ owner(s) ☐ occupiers of the property (please ✓)

2 Please note - In most instances Council will require the approval of the legal owners and the occupiers of the affected property

Do you have authority to sign on behalf of any person ☒ Yes ☐ No

Who do you have authority to sign on behalf of ☒ all the owners ☐ all the occupiers

3 I/we understand that the aspects of non-compliance with the Operative District Plan to which I/we are giving my/our written approval are as follows

a _____

b _____

c _____

(continue on separate page if necessary)

Have you attached a separate page(s) to this form ☐ Yes ☐ No

If yes, how many pages have you attached _____

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6 Further, I/we understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

7 I/we understand the eight (8) notes included on the front of this form.

All owners and occupiers of the property must give their written approval
by signing and dating below

E Powell
Signature

1/6/13
Date

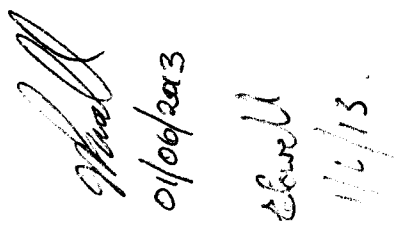
[Signature]
Signature

01/06/2013
Date



Scale 1:10000

Comprised In: CT39B/1099

[illegible]

Proposed Subdivision of Lot 1 DP82945

CA Geraghty

Prepared for:

SHEET

→

SCALE
1:1000 (A3)

CHECKED **M. Erick**

DRUMMOND M. FLICK

SERIES 1 of 1

LAND & ENGINEERING SURVEYORS
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MANAGEMENT 100 Box 744, 33 Tenth Street, Tel. 08 438 2500 Fax 08 438 4227
Wendouville (Post) 87 Melville Street, Tel. 08 438 4834 Fax 08 438 4887



PART C - To be completed by the party giving approval

If giving approval, please only sign and date below once you have carefully read and understood all seven (7) notes below

Please answer all questions fully

Name of party giving approval R. J. MCKAY

being the owner/occupier of the property below (please identify which)

Property address (including legal description) PT ALLOT 1 WAIPU PSN BLK XIV RUAKAKA S.D

BLK III NAIPU S.D

Postal address 45 CONNELL RD R.D 2 WAIPU 0582

Phone (daytime) 09 4320479 Fax SAME

Email rodandjoy@clear.net.nz

1 I am/we are the ☒ owner(s) ☐ occupiers of the property (please ✓)

2 Please note - In most instances Council will require the approval of the legal owners and the occupiers of the affected property

Do you have authority to sign on behalf of any person ☒ Yes ☐ No

Who do you have authority to sign on behalf of ☒ all the owners ☐ all the occupiers

3 I/we understand that the aspects of non-compliance with the Operative District Plan to which I/we are giving my/our written approval are as follows

a Subdivision to create 2 existing house sites

b _____

c _____

(continue on separate page if necessary)

Have you attached a separate page(s) to this form ☐ Yes ☒ No

If yes, how many pages have you attached _____

4 I/we confirm that I/we understand and have signed and dated the plans of the proposal and the assessment of environmental effects prepared by the applicant and the relevant rules of the Operative District Plan, and have attached the signed documents to this form.

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6 Further, I/we understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

7 I/we understand the eight (8) notes included on the front of this form.

All owners and occupiers of the property must give their written approval
by signing and dating below

R. J. McKay
Signature

18.4.2013
Date

Signature

Date

PART C - To be completed by the party giving approval

If giving approval, please only sign and date below once you have carefully read and understood all seven (7) notes below

Please answer all questions fully

Name of party giving approval LANCE & NATASHA BUCK
being the owner/occupier of the property below (please identify which)

Property address(including legal description) PT 1 DP 91791 BLK XIV RUAKAKA SI

Postal address 38 CONNELL ROAD WAIPU

Phone(daytime) 09 4320136 Fax _____

Email _____

1 I am/we are the ☒ owner(s) ☐ occupiers of the property (please ✓)

2 **Please note - In most instances Council will require the approval of the legal owners and the occupiers of the affected property**

Do you have authority to sign on behalf of any person ☒ Yes ☐ No

Who do you have authority to sign on behalf of ☒ all the owners ☐ all the occupiers

3 I/we understand that the aspects of non-compliance with the Operative District Plan to which I/we are giving my/our written approval are as follows

- a _____
b _____
c _____

(continue on separate page if necessary)

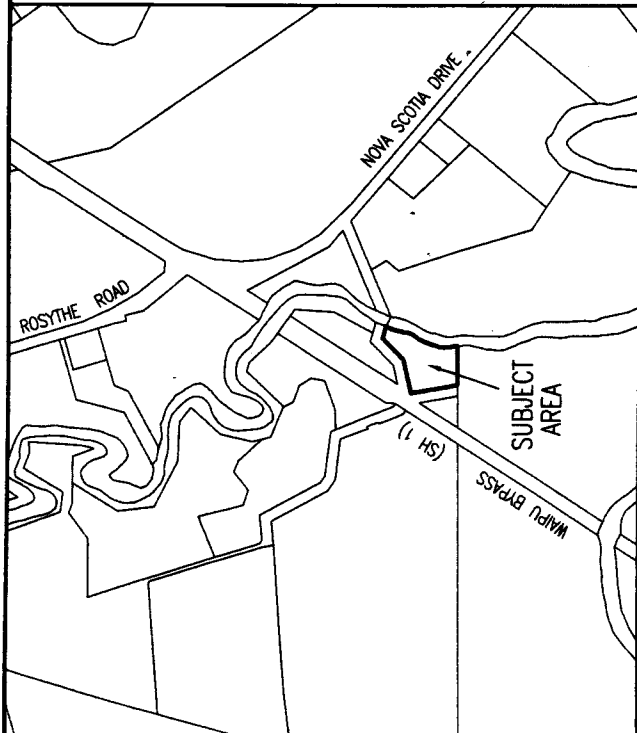
Have you attached a separate page(s) to this form ☐ Yes ☒ No

If yes, how many pages have you attached _____

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- 6 Further, I/we understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.
- 7 I/we understand the eight (8) notes included on the front of this form.

All owners and occupiers of the property must give their written approval by signing and dating below

NG Buck 27/04/13 [Signature] 27-4-13
Signature Date Signature Date



LOCALITY DIAGRAM
Scale 1:10000

NOTES:
Areas and distances are approximate only and subject to survey.
Building setbacks are 4.5m from all road boundaries, one boundary at 1.5m and 3m from all other boundaries.
Total Area: 8730m²
Comprised in: CT398/1099

VERSION	DATE	DESCRIPTION



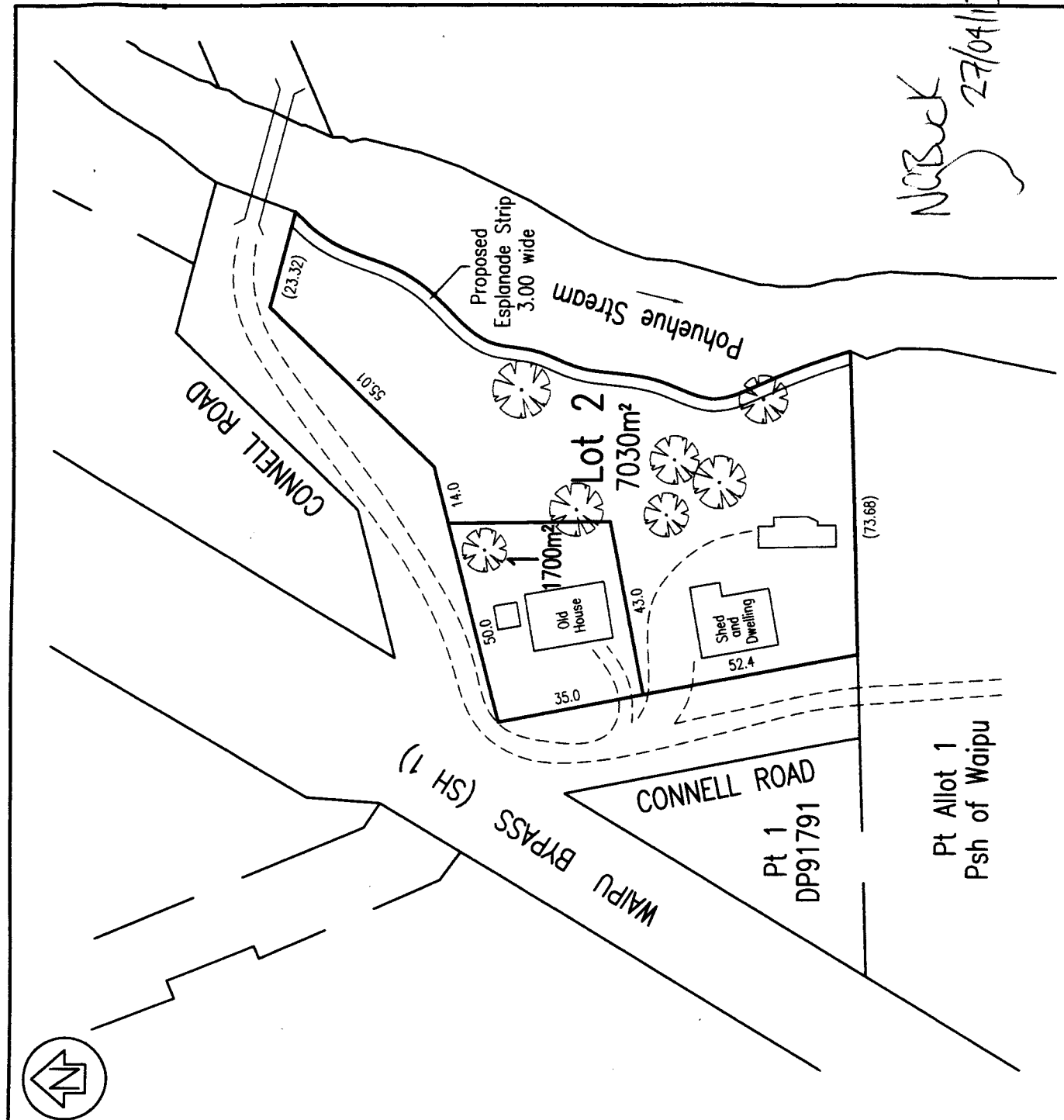
LAND & ENGINEERING SURVEYORS
RESOURCE MANAGEMENT CONSULTANTS
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GPS & SPATIAL INFORMATION SERVICES
INCORPORATING HODGES & ELRICK LTD
UNIVERSITY OF THE SOUTH ISLANDS
PO Box 194, 33 Cape Street, PO Box 438 7540 Foxton 06 337 0277
DUNEDIN (Ph) 03 478 8000 Fax 03 478 8007

Proposed Subdivision of Lot 1 DP82945

Prepared for:

CA Geraghty

DRAWN	M Elrick	CHECKED	M Elrick	SCALE	1:10000 (A7)	SHEET	1	SERIES	1 of 1
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NZBuck 27/04/13

RE Proposed Subdivision, C. A. Geraghty, 41 Connell R Waipu.

NES Contaminated Soils – Pre-lodgement Questionnaire

A Resource Management Act Regulation entitled National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health ('NES') came into force from 1 January 2012. The NES controls changes to the use of land where the use might introduce a risk to the health of people using the land, or where activities such as subdivision and earthworks are intended to be undertaken on sites where it is likely that past uses have contaminated the soil. Your application cannot be processed by Council without knowing whether or not this Regulation applies.

You will need to determine whether it is more likely than not, that the site of your activity will take place on land that either currently is, or has previously been, used for an activity that may potentially contaminate the soil. A list of those activities considered to contaminate the soil is called the Hazardous Activities and Industries List ('HAIL') and information regarding the Regulation is available on the website <http://www.mfe.govt.nz/laws/standards/contaminants-in-soil/>. A brochure with general information on the NES for landowners and developers can also be obtained through this website. Hard copies are available at Council's Customer Service Centre.

Does the NES apply to the piece of land and activity you are proposing under this consent application?

The following table asks a number of questions to determine whether the regulations are applicable. Please answer the following questions and provide evidence where appropriate (i.e. old aerial photographs, written correspondence from previous land owners confirming previous uses etc)

Question	Comments	
How long have you owned/occupied the piece of land to which this application applies (or larger area that included the subject property?)		
What is the current use of the piece of land to which this application applies?	Rural lifestyle	
Question	Answer (✓)	Comments
Is an activity described on the HAIL currently being undertaken on the piece of land to which this application applies? Please refer to the attached HAIL checklist	☐ Yes ☒ No	
Has an activity described on the HAIL ever been undertaken on the piece of land to which this application applies? Please refer to the attached HAIL checklist	☒ Yes ☐ No	
Is it more likely than not that an activity described on the HAIL is being or has been undertaken on the piece of land to which this application applies?	☐ Yes ☐ No	refer above
Are you aware of any activities listed in the HAIL that are currently being, or have been undertaken in the vicinity of the piece of land to which this application applies?	☐ Yes ☐ No	refer above
If 'No' to all of the above, you will not need to fill out the following sections as the NES is not applicable to your proposed activity.		
If 'Yes' to any of the above, then the NES may apply. Please check the five activities to which the NES applies:		

Question	Answer (✓)	Comments
Does the activity you are proposing involve removing or replacing a fuel storage system or parts of it?	☐ Yes ☒ No	
Does the activity you are proposing involve sampling soil?	☐ Yes ☒ No	
Does the activity you are proposing involve disturbing soil?	☐ Yes ☒ No	
Does the activity you are proposing involve the subdivision of land?	☒ Yes ☐ No	
Does the activity you are proposing involve changing the use of the land?	☐ Yes ☒ No	
If 'Yes' to any of the above activities, then the NES for Assessing and Managing Contaminants in Soil to Protect Human Health is likely to apply. You will need to assess the permitted activity criteria provided in Regulation 8(1) – 8(4) of the NES. Please note that in accordance with Regulation 5(8) if the piece of land on which your proposed activity is to take place is considered production land (as defined in section 2 of the Resource Management Act 1991) the regulations only apply if you want to: • remove or replace a fuel storage system • sample or disturb • soil under existing residential buildings on the piece of land • soil used for the farmhouse garden or other residential purposes in the immediate vicinity of existing residential buildings • soil that would be under proposed residential buildings on the piece of land • soil that would be used for the farmhouse garden or other residential purposes in the immediate vicinity of proposed residential buildings • subdivide the land in a way that causes the piece of land to stop being production land • change the use of the piece of land in a way that causes the piece of land to stop being production land.		

If you have any questions regarding the application of the NES to your consent application please contact Council's Duty Planner on 09 430 4200.

Hazardous Activities and Industries List (HAIL) Checklist

A Chemical manufacture, application and bulk storage		Yes	No
Agrichemicals including commercial premises used by spray contractors for filling, storing or washing out tanks for agrichemical application	☐	☒	
Chemical manufacture, formulation or bulk storage	☐	☒	
Commercial analytical laboratory sites	☐	☒	
Corrosives including formulation or bulk storage	☐	☒	
Dry-cleaning plants including dry-cleaning premises or the bulk storage of dry-cleaning solvents	☐	☒	
Fertiliser manufacture or bulk storage	☐	☒	
Gasworks including the manufacture of gas from coal or oil feedstocks	☐	☒	
Livestock dip or spray race operations	☐	☒	
Paint manufacture or formulation (excluding retail paint stores)	☐	☒	
Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds	☐	☒	
Pest control including the premises of commercial pest control operators or any authorities that carry out pest control where bulk storage or preparation of pesticide occurs, including preparation of poisoned baits or filling or washing of tanks for pesticide application	☐	☒	
Pesticide manufacture (including animal poisons, insecticides, fungicides or herbicides) including the commercial manufacturing, blending, mixing or formulating of pesticides	☐	☒	
Petroleum or petrochemical industries including a petroleum depot, terminal, blending plant or refinery, or facilities for recovery, reprocessing or recycling petroleum-based materials, or bulk storage of petroleum or petrochemicals above or below ground	☐	☒	
Pharmaceutical manufacture including the commercial manufacture, blending, mixing or formulation of pharmaceuticals, including animal remedies or the manufacturing of illicit drugs with the potential for environmental discharges	☐	☒	
Printing including commercial printing using metal type, inks, dyes, or solvents (excluding photocopy shops)	☐	☒	
Skin or wool processing including a tannery or fellmongery, or any other commercial facility for hide curing, drying, scouring or finishing or storing wool or leather products	☐	☒	
Storage tanks or drums for fuel, chemicals or liquid waste	☒	☐	
Wood treatment or preservation including the commercial use of anti-sapstain chemicals during milling, or bulk storage of treated timber outside	☐	☒	
B Electrical and electronic works, power generation and transmission			
Batteries including the commercial assembling	☐	☒	
Electrical transformers including the manufacturing	☐	☒	
Electronics including the commercial manufacturing	☐	☒	
Power stations	☐	☒	
C Explosives and ordinances production, storage and use			
Explosive or ordinance production, maintenance, dismantling, disposal, bulk storage or re-packaging	☐	☒	
Gun clubs or rifle ranges, including clay targets clubs that use lead munitions outdoors	☐	☒	
Training areas set aside exclusively or primarily for the detonation of explosive ammunition	☐	☒	

D Metal extraction, refining and reprocessing, storage and use		Yes	No
Abrasive blasting including abrasive blast cleaning (excluding cleaning carried out in fully enclosed booths) or the disposal of abrasive blasting material		☐	☒
Foundry operations including the commercial production of metal products by injecting or pouring molten metal into moulds		☐	☒
Metal treatment or coating including polishing, anodising, galvanising, pickling, electroplating, or heat treatment or finishing using cyanide compounds		☐	☒
Metalliferous ore processing including the chemical or physical extraction of metals, including smelting, refining, fusing or refining metals		☐	☒
Engineering workshops with metal fabrication		☐	☒
E Mineral extraction, refining and reprocessing, storage and use			
Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition		☐	☒
Asphalt or bitumen manufacture or bulk storage (excluding single-use sites used by a mobile asphalt plant)		☐	☒
Cement or lime manufacture using a kiln including the storage of wastes from the manufacturing process		☐	☒
Commercial concrete manufacture or commercial cement storage		☐	☒
Coal or coke yards		☐	☒
Hydrocarbon exploration or production including well sites or flare pits		☐	☒
Mining industries (excluding gravel extraction) including exposure of faces or release of groundwater containing hazardous contaminants, or the storage of hazardous wastes including waste dumps or dam tailings		☐	☒
F Vehicle refuelling, service and repair			
Airports including fuel storage, workshops, washdown areas, or fire practice areas		☐	☒
Brake lining manufacturers, repairers or recyclers		☐	☒
Engine reconditioning workshops		☐	☒
Motor vehicle workshops		☐	☒
Port activities including dry docks or marine vessel maintenance facilities		☐	☒
Railway yards including goods-handling yards, workshops, refuelling facilities or maintenance areas		☐	☒
Service stations including retail or commercial refuelling facilities		☐	☒
Transport depots or yards including areas used for refuelling or the bulk storage of hazardous substances		☐	☒
G Cemeteries and waste recycling, treatment and disposal			
Cemeteries		☐	☒
Drum or tank reconditioning or recycling		☐	☒
Landfill sites		☐	☒
Scrap yards including automotive dismantling, wrecking or scrap metal yards		☐	☒
Waste disposal to land (excluding where biosolids have been used as soil conditioners)		☐	☒
Waste recycling or waste or wastewater treatment		☐	☒
H	Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment	☐	☒
I	Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment	☐	☒

Mike Elrick

From: Robin Rawson [robinr@wdc.govt.nz]
Sent: Thursday, 17 October 2013 10:57 a.m.
To: Mike Elrick
Cc: Paul McDonald
Subject: Esplanade reserve issues

Follow Up Flag: Follow up

Flag Status: Red

Good morning Mike

Subdivision at Connell Road Waipu

Paul McDonald's preference is for an esplanade reserve with an average width of 15 metres rather than an esplanade strip in this location. The esplanade reserve would be a strategic part of the future parks network around the Waipu growth node, and provide recreational and natural values.

If the esplanade reserve is to be other than a uniform 15 metres width, we would need further information provided on the topography and ground conditions to assess if the layout was suitable.

Subdivision at Maunu Road

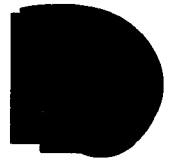
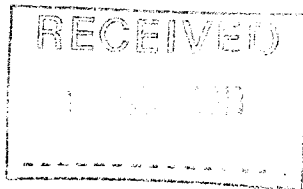
A site visit is needed to consider this. Am I able to visit the site either tomorrow or Monday?

Thanks
Robin

Robin Rawson

Group Planner | Whangarei District Council
Private Bag 9023 | Whangarei 0148 | www.wdc.govt.nz
P: 09 430 4230 ext 8378 | E: robinr@wdc.govt.nz

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Te Kaunihera a rohe o Te Tai Tokerau

Private Bag 9021
36 Water Street
WHANGAREI 0148
New Zealand

16 July 2012

Mr & Mrs Geraghty
PO Box 82
Waipu, 0545

Phone: (09) 438 4639
Freephone: 0800 002 004
Environmental Hotline:
0800 504 639
Fax: (09) 438 0012
Email: mailroom@nrc.govt.nz

To the Landowner

www.nrc.govt.nz

HAZARDOUS ACTIVITIES AND INDUSTRIES (HAIL) SITES IN NORTHLAND

The Northland Regional Council (NRC) holds a database of properties that have been used, at some time, for activities listed on the Ministry for the Environment's Hazardous Activities and Industries List (HAIL) within Northland.

This letter serves to notify you that land for which you are the listed owner is recorded on this database as follows:

Legal Description	Situation Address	Current Status	Contamination Type	Contamination Used
LOT 1 DP 82945 BLK XIV RUAKAKA SD	39 -41 CONNELL RD,WAIPU	Contamination acceptable/managed/ remediated	Hydrocarbons	Diesel

The Northland Regional Council holds a tank removal validation report for Waipu Fertiliser, dated September 2005, supplied by Shell NZ Ltd.

If you no longer own the property or have any additional information, it would be appreciated if you could inform us. Please freephone 0800 002 004.

Should you have any concerns or queries, please do not hesitate to contact the Northland Regional Council Waste Management team, James Mitchell or Gary Young.

Waste Management Team
Northland Regional Council

MNC803430_226853

Further information is available on the Ministry for the Environment website:
<http://www.mfe.govt.nz/issues/hazardous/contaminated/>

MNK 804329

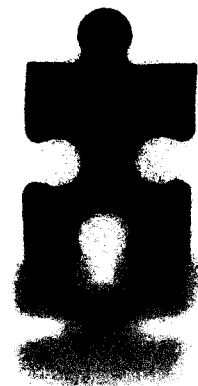


Meeting the challenge

Shell NZ Ltd.

**Waipu Fertiliser Plant
Tank Removal Validation**

September 2005



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This disclaimer shall apply notwithstanding that the report may be made available to other persons for an application for permission or approval to fulfil a legal requirement.

Quality Assurance Statement	
MWH New Zealand Ltd Level 2, Building C Millennium Centre, 600 Great South Road P O Box 12 941 Greenlane, Auckland Tel: 64-9-580 4500 Fax: 64-9-580 4514	Project Manager: Benedict Smith
	Prepared by: Elaina Boud
	Reviewed by: Benedict Smith
	Approved for issue by: Benedict Smith

CONFIDENTIAL – PRIVILEGED COMMUNICATION IN CONTEMPLATION OF LITIGATION**Tank Removal Validation for Waipu Fertiliser Plant, Connell Road,
September 2005****Executive Summary**

- A single underground petroleum storage tank containing diesel was removed from Waipu Fertiliser Plant in September 2005.
- MWH did not attend the tank removal. MWH did attend to take validation samples from the excavation pit to provide Shell New Zealand Ltd with information on the significance of any residual contamination at the site in relation to the underground petroleum storage system.
- The tank and associated bowser were the primary potential sources of contamination at the site and there was no indication of any other previous site activities or adjoining land use of a contaminating nature.
- All bedding material was returned to the pit.
- Soil samples were collected from the in-situ soils surrounding the tank pit, from the bedding material supporting the tank and beneath the associated bowser.
- A water sample was taken from the on-site down-gradient groundwater holding tank.
- Samples were analysed for contaminants of concern as detailed in the MfE Guidelines.
- Two soil samples (T1SS 2m and T1Bow 0.5m) returned values which exceed the MfE guideline All Pathways criteria for TPH on a Commercial/Industrial site, so a revised tier 1 pathway specific soil acceptance criteria analysis was carried out.
- T1SS from the south side of the tank pit exceeds the Tier 1 guideline criteria for maintenance and excavation workers. T1Bow from the former bowser location exceeds the Tier 1 guideline criteria for the protection of groundwater. The areas associated with this contamination are limited in extent and are not considered significant.
- Groundwater from the onsite borehole is used for washing purposes only and not used for potable purposes. Other local boreholes in the area are used for irrigation and stock purposes but are all up-gradient of the site.
- All other samples representing soil remaining onsite returned values within the guideline criteria for an ongoing commercial / industrial site.
- The groundwater sample taken from site down-gradient of the tank pit and bowser area returned values below laboratory detection limits.
- No further work is recommended at the site with respect to the underground petroleum storage system removed from the site during this investigation.

1 Objective

MWH New Zealand Limited was commissioned by Shell New Zealand Limited (Shell) to conduct a soil validation.

The purpose of the investigation was to:

- determine the presence or absence of any impact at the site arising from the use of the underground petroleum storage system (UPSS); and
- provide information to enable the assessment of whether further investigation or remediation activities are required.

The site investigation was conducted in accordance with the Ministry for the Environment (MfE) "Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand" (MfE Guidelines).

All work was performed in accordance with Shell's specifications and MWH standard field procedures.

The information contained within this report is valid as at the date of the fieldwork. Site conditions, and hence the validity of the information contained within this report will vary with time and the user needs to satisfy themselves of the current validity of the information at any subsequent use.

2 Contaminants of Concern

The guidance provided in the MfE guidelines has been used to determine contaminants of concern for petroleum products.

Samples were sent to Amdel Laboratories for TPH analysis. Based on elevated TPH results PAH analysis was carried out in samples T1SS 2m, T1BOW 0.5m, T1BOW 1m, T1BOW 1.5m

Screening levels in the MfE Guidelines have been used to assess all complete exposure pathways following the risk based approach in the guidelines.

3 Site Information

Name:	Waipu Fertiliser Plant		
Address:	Connell Road, Waipu, Northland		
Shell ID no.	808448		
Legal description:	Lot 1 DP 82945		
City/district council area:	Whangarei District		
City/district council zoning	Site:	Commercial	
	Adjacent:	Agricultural	

4 Site Use Information

Oil Company name:	Shell New Zealand Ltd			
Ownership:	☐ Company	☒ Operator	☐ Third party	
Lessee details:	NA			
Owners details (trading name and postal address):	Waipu Fertiliser Plant, Connell Road, Waipu, Northland			
Current site use:	☐ Service station	☐ Workshop		
	☐ Truckstop	☒ Other (describe)	Fertiliser plant	
Reason for removal:	☒ Replacement	☐ Partial removal	☐ Complete removal	
	☐ Transfer	☐ Other		

5 Field Work

MWH Representatives:	Elaina Boud, Sarah Magor
Date on-site:	14 September 2005

Time arrived on site:	09:15
Time departed site:	11:45
Any variation from Shell Specification or best practice:	MWH were not present when the tank was removed
Dangerous Goods Inspector (if present)	-
6 Contractor Information	
Supervising Contractor	Oilcon
Earthworks Contractor:	Waipu Excavations Ltd.
7 Chronology of Events	
Prior site uses of contaminating nature	Not known
When site commenced operation	Not known
Specific events – (where provided by Shell)	None provided
Date of investigations	14 September 2005
Date of closure re-tank etc	September 2005
Future site use if known	Commercial
8 Previous reports	
None provided	



9 Site Equipment Information :

9.1 Tanks * note tank inventory to include any tanks remaining on site

Tank No.	Shell ID	Type of Tank	Capacity (litres)	Contents (product)	Status	Date of Installation	Invert (m BGS)	Type of Construction	Removal/ Abandonment date	Condition (holed?)	Pit Containment	Remote or direct fill
1	-	Underground	5,000	Diesel	Removed	1978	2.5	Steel	14/09/05	Good	Concrete Walls	Direct

9.2 UPSS Observations

Tank was removed before MWH's arrival onsite.

The dispensing bowser was situated directly above the southern end of the tank pit.

Tank pit was lined on all walls with concrete. There was no concrete base.

9.3 Source of Information

Information was obtained through discussion with site staff and contractors.

10 Site Environment							
Neighbouring land uses (indicate on site plan)	North:	Industrial/commercial	X	Residential		Agricultural	
	South:	Industrial/commercial		Residential		Agricultural	X
	East:	Industrial/commercial		Residential		Agricultural	X
	West:	Industrial/commercial		Residential		Agricultural	X
Topography:		The site is flat. The area beyond the eastern boundary fence slopes down towards the river.					
Surface covering:		The surface was covered with gravel.					
Surface drainage/runoff:		The site area was flat. During rain on site, run-off direction was not easily identified. Water at the eastern edge of the site would run-off in an easterly direction down the sloping land towards the river					
Underground services:		None identified in the immediate area of the UPSS					
Could services affect migration:		Unlikely					
Nearest surface water body:		Waipu River approximately 150m to the East					
Surface water use:	Recreation	X	Drinking		Irrigation		
	Aquaculture		Industry		Shipping		
	Not utilised		Not known				
Sensitive ecosystems:		Waipu River approximately 150m to the East					
Potential sensitive receptors:		Waipu River approximately 150m to the East					
Potential on-site sources of contamination		The former and proposed tank and associated bowser are the primary potential sources of contamination. The workshop associated with the fertiliser plant and fertiliser carried by the trucks are also potential sources of contamination. No fertiliser is stored onsite.					
Potential off-site sources within 100m		None identified					
11 Geological Information							
Likelihood of presence of fill		Fill was present within the tank pit and beneath the bowser location. Fill on the remainder of the site is considered to be unlikely other than base material for pavements and foundations.					
Typical vadose zone soil types		The area is underlain by an alluvial sequence with silty clay and sand dominating the vadose zone.					
Likely nature and depth to bedrock		Waipapa Group: Greywacke and argillite with chert and associated manganese and copper, spilitic and variolitic pillow lava (Thompson B. N. 1961). Depth to bedrock is unknown.					
11.1 Typical Soil Sequence Exposed							
Site soil log:	Depth (m)	Description (eg brown silty clay)					Pit Number
0.0	0.1	Gravel fill					One
0.1	1.20	Light brown/grey silty clay					
1.20	4.00	Light brown, orange sands (this did not look like fill material because of the depth)					
11.2 Groundwater							
Was groundwater encountered?		Yes	At 3.7 m				
Was a test pit constructed to confirm groundwater below 4m depth?						NA	
Was sheen or free product visible?		No	No sheen on groundwater seen in the pit				

On-site wells (describe and locate on plan):		An observation well was present in the tank pit and was destroyed during the tank removal prior to MWH attendance. A groundwater bore is present on the eastern portion of the site, approximately 130m Northwest and down-gradient of the removed tank pit. The depth of this bore is unknown and the water from this bore is used for vehicle washing. A sample was taken and analysed for TPH and BTEX.	
Off-site wells:		Northland Regional Council conducted a bore search of the Waipu area. Two wells were identified within a 1000m radius of the site. Two groundwater takes of unknown use were also identified within a 1000m radius of the site.	
Well number:	Distance and direction from site:	Depth (m)	Use:
207221	250m NNE	41 (static GW level = 6m)	Irrigation
207220	500m S	28 (static GW level = 6m)	Stock
19850221901	500m N	Unknown	Unknown
19830339901	950m N	Unknown	Unknown
Local groundwater flow direction (if more than one aquifer comment on each aquifer individually):		The water table is 3.7m bgl and is inferred to permeate in an eastern direction towards the Waipu River.	
Water supply (for site, neighbours and area) eg, town supply, from river, bores		Site:	Rain water
		Neighbours:	Rain water and Groundwater
		Area:	Rain water and Groundwater
Sensitive aquifer:		None identified	
Likelihood of groundwater use:		Groundwater in the area is used for stock watering and irrigation in the Waipu area. No bores identified off site are down-gradient of the site.	
Describe hydrogeology:		Groundwater is inferred to permeate in an eastern direction towards the Waipu River 150m to the east.	
12 Spoil Removal			
Was impacted soil/bedding removed from site?		No	
Spoil Removed:		No spoil removed	
13 QA Assessment			
Reason for any field procedure deviations from specification or best practice		MWH not present during tank removal	
Any laboratory QA issues		No. T1BOW4 1.5m is the QA for T1BOW 1.5 & GW Tank 3 is the QA for GW Tank 1. As shown below, there is good agreement between the results of these samples	
Duplicate sample statistics		Sample Reference	T1BOW1.5
			T1BOW4
		Represents Soil	Remaining
		Sample Location	Tank 1 Bowser
		Sample Depth (m)	1.5m
		Soil Type	Silty clay
		Parameters	Results in mg/kg dry weight
		TPH	
		C ₇ - C ₉	40
		C ₁₀ - C ₁₄	1300
C ₁₅ - C ₃₆	5930		
		Duplicate of T1BOW1.5	
		Remaining	
		Tank 1 Bowser	
		1.5m	
		Silty Clay	
		40	
		1200	
		5660	

	Sample Reference	GW_Tank 1	GW_Tank 3 Duplicate of GW_Tank 1
	Sample Location	Groundwater holding tank	Groundwater holding tank
	Product ID	-	-
	Soil Type	Sand	Sand
	Sample Date	14 Sept 2005	14 Sept 2005
	Parameters	Results in mg/kg dry weight	
	TPH		
	C ₇ – C ₉	<0.02	<0.02
	C ₁₀ – C ₁₄	<0.02	<0.02
	C ₁₅ – C ₃₆	<0.2	<0.2
	BTEX		
	Benzene	<0.0005	<0.0005
	Toluene	<0.001	<0.001
	Ethylbenzene	<0.001	<0.001
	Total Xylenes	<0.002	<0.002

Laboratory Analysis Results (Silty Clay Soil <1m)

Sample Reference	T1BOW_SS	T1BOW_5m	T1S1(E)	Protection of Groundwater Quality (2m)
Representative Soil	Remaining	Remaining	Remaining	
Sample Location	Tank 1 Bowser surface scraping	Tank 1 Bowser	Tank 1 Shallow on East	
Sample Depth (m)	surface	0.5m	0.7m	
Soil Type	Silty clay	Silty clay	Silty clay	
Parameters	Results in mg/kg dry weight			
TPH				(mg/kg)
C ₇ - C ₉	<10	120	<10	(8,800)
C ₁₀ - C ₁₄	30	2600	<10	(1,900)
C ₁₅ - C ₃₈	508	7660	<100	NA ¹
PAH				
Naphthalene	-	<0.5	-	(230)
Pyrene	-	0.8	-	NA ²
Benzo(a)pyrene Eq	-	<0.5	-	(11)
				0.93

Note: Reference MIE Guidelines Tables 4.10 - 4.15 and 4.20

Site environmental criteria used are: Commercial/Industrial Land Use, SiltyClay Soil, <1 m Contamination Depth, 2m Groundwater Depth.

NA¹ indicates estimated criterion exceeds 20,000mg/kg. At 20,000mg/kg residual separate phase is expected to have formed in the soil matrix. Some aesthetic impact may be noted.

NA² indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site.

NA³ indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site (i.e. 20,000mg/kg for TPH, 10,000mg/kg for other contaminants). Brackets denote values exceed threshold likely to correspond to formation of residual separate phase hydrocarbons.

**MWH****Laboratory Analysis Results (Silty Clay Soil 1-4m)**

Sample Reference	T1BOW_1m		T1BOW1.5		T1BOW4 duplicate		Commercial / Industrial All Pathways	Protection of Groundwater Quality (4m)
Represents Soil	Remaining	Tank 1 Bowser	Remaining	Tank 1 Bowser	Remaining	Tank 1 Bowser		
Sample Location	Tank 1 Bowser		Tank 1 Bowser		Tank 1 Bowser			
Sample Depth (m)	1m		1.5m		1.5m			
Soil Type	Silty clay		Silty clay		Silty Clay		Silty Clay	
Parameters			Results in mg/kg dry weight				(mg/kg)	(mg/kg)
TPH								
C ₇ - C ₉	50		40		40		(20,000)	NA ³
C ₁₀ - C ₁₄	1700		1300		1200		(8,900)	NA ³
C ₁₅ - C ₂₈	4670		5930		5660		NA ¹	NA ³
PAH								
Naphthalene	1.4		0.8		-		(1,100)	NA ³
Pyrene	3.6		2.4		-		NA ²	NA ³
Benzo(a)pyrene Eq	<0.5		<0.5		-		(25)	NA ³

Note:

Reference MfE Guidelines Tables 4.10 – 4.15 and 4.20

Site environmental criteria used are: Commercial/Industrial Land Use, SiltyClay Soil, 1- 4 m Contamination Depth, 4 m Groundwater Depth.

NA¹ indicates estimated criterion exceeds 20,000mg/kg. At 20,000mg/kg residual separate phase is expected to have formed in the soil matrix. Some aesthetic impact may be noted.NA² indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site.NA³ indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site (i.e. 20,000mg/kg for TPH, 10,000mg/kg for other contaminants).

Brackets denote values exceed threshold likely to correspond to formation of residual separate phase hydrocarbons.

**MWH****Laboratory Analysis Results (Sand, 1m - 4m)**

Sample Reference	T1B1_2.5 Remaining	T1NS_2m Remaining	T1ES_2m Remaining	T1WS_2m Remaining	T1BED2- Remaining	T1SS_2m Remaining	Commercial / Industrial All Pathways	Protection of Groundwater Quality (4m)
Represents Soil	Tank 1 Base	Tank 1 North side	Tank 1 East side	Tank 1 West side	Tank 1 Bedding	Tank 1 South side		
Sample Location								
Sample Depth (m)	2.5m	2m	2m	2m	2-2.5m	2m		
Soil Type	Sand	Sand	Sand	Sand	Sand	Sand		
Parameters	Results in mg/kg dry weight							
TPH								
C ₇ - C ₉	<10	<10	<10	<10	<10	80	120	NA ³
C ₁₀ - C ₁₄	<10	<10	<10	<10	200	6700	(1,900)	NA ³
C ₁₅ - C ₂₈	<100	<100	<100	<100	1250	19000	NA ¹	NA ³
PAH								
Naphthalene	-	-	-	-	-	<0.5	(230)	3.7
Pyrene	-	-	-	-	-	14	NA ²	NA ³
Benzo(a)pyrene Eq	-	-	-	-	-	<0.5	(25)	NA ³

Note: Reference MfE Guidelines Tables 4.10 - 4.15 and 4.20

Site environmental criteria used are: Commercial/Industrial Land Use, Sand / Gravel Soil, 1- 4 m Contamination Depth, 4 m Groundwater Depth.

NA¹ indicates estimated criterion exceeds 20,000mg/kg. At 20,000mg/kg residual separate phase is expected to have formed in the soil matrix. Some aesthetic impact may be noted.

NA² indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site.

NA³ indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site (i.e. 20,000mg/kg for TPH, 10,000mg/kg for other contaminants).

Brackets denote values exceed threshold likely to correspond to formation of residual separate phase hydrocarbons.

**MWH****14 Laboratory Analysis Results - Groundwater**

Sample Reference	GW_Tank 1		GW_Tank 3		MIE Groundwater Acceptance Criteria			
	Groundwater holding tank		Groundwater holding tank		Inhalation Pathway		Potable Water Supply	Irrigation Water Supply
	Product ID	Soil Type	14 Sept 2005	14 Sept 2005	Indoor air	Outdoor air		
Sample Date	14 Sept 2005		14 Sept 2005		Commercial / Industrial, Sand, 2 m groundwater depth			
Parameter	Results in mg/L		Results in mg/L		mg/L			
TPH								
C ₇ - C ₉	<0.02		<0.02		S	S	18.0*	>S
C ₁₀ - C ₁₄	<0.02		<0.02		S	S	>S	>S
C ₁₅ - C ₂₈	<0.2		<0.2		S	S	>S	>S
BTEX								
Benzene	<0.0005		<0.0005		5.2	(340)	0.01	0.8
Toluene	<0.001		<0.001		(460)	S	0.8	39
Ethylbenzene	<0.001		<0.001		(110)	S	0.3	18
Total Xylenes	<0.002		<0.002		S	S	0.6	13

Note: Reference MIE Contaminated Land Guidelines Tables 5.10 to 5.12.

C₇ - C₉ criteria based on health effects associated with aliphatic component only.

Values in brackets exceed solubility limit for compound in water when present as part of a typical gasoline mixture.

S denotes water criteria exceeds solubility limit for pure compound in water.

>S denotes calculated limit exceeds solubility limit given TPH criteria based on aliphatic component only. Separate consideration is given to the aromatic component.

* exceeds solubility limit for aliphatic components; aromatic components will be limited by criteria for BTEX compounds. Therefore comparison of measured concentrations with criteria for BTEX, will also be protective against adverse effects associated with aliphatic component.



MWH



Revised Tier 1 Soil Acceptance Criteria (Silty Clay <1m)

Parameter	Revised Tier 1 Pathway Specific Soil Acceptance Criteria (mg/kg) - Commercial/Industrial Land Use, Silty Clay Soil, <1m Contamination Depth							Concentration Detected (mg/kg)
	PAH Surrogate	Soil Ingestion	Dermal Absorption	Maintenance /Excavation Workers	Inhalation (indoor)	Inhalation (outdoor)	Protection of Groundwater (2m)	
TPH								T1BOW 0.5m Tank 1 Bowser (0.5m)
	C ₇ - C ₉	NA ²	NA ³	20,000	8,800	NA ³	(710)	120
	C ₁₀ - C ₁₄	NA ²	NA ²	NA ²	10,000	NA ³	(1,500)	2600
	C ₁₅ - C ₃₈	NA ²	NA ²	NA ²	NA ³	NA ³	NA ³	7660
PAH								
Naphthalene	-	NA ²	9,100	NA ²	230	10,000	0.047	<0.5
Pyrene	-	NA ²	NA ²	NA ²	NA ³	NA ³	1.3	0.8
Benzol(a)pyrene Eq	-	20	11	25	NA ³	530	0.93	<0.5

Note: Reference MfE Guidelines Tables 4.16, 4.18, 4.19, 4.20 and 4.22.

C₇ - C₉ criteria based on health effects associated with aliphatic component only.

C₁₀ - C₁₄ and C₁₅ - C₃₈ criteria are based on consideration of aliphatic component and TPH as a surrogate for PAH.

Brackets denote values exceed threshold likely to correspond to the formation of residual separate phase hydrocarbons.

NA² indicates contaminant not limiting as estimated criterion is significantly higher than that likely to be encountered on-site.

NA³ indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site (i.e. 20,000mg/kg for TPH, 10,000mg/kg for other contaminants).



Revised Tier 1 Soil Acceptance Criteria (Sand, 1-4m)

Parameter	Revised Tier 1 Pathway Specific Soil Acceptance Criteria (mg/kg) - Commercial/Industrial Land Use, Sand Soil, 1 m - 4 m Contamination Depth.							Concentration Detected (mg/kg)
	PAH Surrogate	Soil Ingestion	Dermal Absorption	Maintenance /Excavation Workers	Inhalation (indoor)	Inhalation (outdoor)	Protection of Groundwater (4m)	
TPH								T1SS_2m South side
C ₇ - C ₉	-	NA ²	NA ²	120	13,000	NA ³	NA ³	80
C ₁₀ - C ₁₄	1,900	NA ²	NA ²	6,500	9,600	NA ³	NA ³	6700
C ₁₅ - C ₂₈	>20,000	NA ²	NA ²	NA ²	NA ³	NA ³	NA ³	1900
PAH								
Naphthalene	-	NA ²	9,100	640	230	2,500	3.7	<0.5
Pyrene	-	NA ²	NA ²	NA ²	NA ³	NA ³	NA ³	14
Benzo(a)Pyrene Eq	-	20	11	25	NA ³	NA ³	NA ³	<0.5

Note: Reference MIE Guidelines Tables 4.16, 4.18, 4.19, 4.20 and 4.22.

C₇ - C₉ criteria based on health effects associated with aliphatic component only.

C₁₀ - C₁₄ and C₁₅ - C₂₈ criteria are based on consideration of aliphatic component and TPH as a surrogate for PAH.

Brackets denote values exceed threshold likely to correspond to the formation of residual separate phase hydrocarbons.

NA² indicates contaminant not limiting as estimated criterion is significantly higher than that likely to be encountered on-site.

NA³ indicates contaminant not limiting as estimated health-based criterion is significantly higher than that likely to be encountered on site (i.e. 20,000mg/kg for TPH, 10,000mg/kg for other contaminants).

15 Interpretation											
Current site use:	X	Petroleum use	X	Industrial/commercial		Residential		Agricultural			
Future use:	X	Petroleum use	X	Industrial/commercial		Residential		Agricultural			
Adjoining land use:		Petroleum use		Industrial/commercial		Residential	X	Agricultural			
Groundwater use:	X	Potable	X	Irrigation	X	Stock		Not used		Not known	
Soil type:	X	SAND, sandy loam, silty sands					PUMICE				
		SANDY SILT, silt, silty loam, clay sand					GRAVELS				
	X	SILTY CLAY, clay loam, sandy clay					FRACTURED BASALT				
		CLAY					PEAT/ORGANIC SOIL				
Depth to contamination:	X	<1 metre	X	1-4 metres		> 4 metres					
Guideline groundwater depth	X	2 metres (0-4 m)		4 metres (4-8 m)		8 metres (>8 m)					
16 Human health exposure pathways											
		Pathway		Complete		Incomplete					
Current site use		Soil ingestion						X			
X	Petroleum use	Dermal absorption						X			
X	Industrial/commercial	Maintenance/excavation worker		X							
	Residential	Inhalation of vapour from water						X			
	Agricultural	Groundwater usage		X							
		Inhalation of vapour from soil						X			
		Produce ingestion						X			
Future site use		Soil ingestion						X			
X	Petroleum use	Dermal absorption						X			
X	Industrial/commercial	Maintenance/excavation worker		X							
	Residential	Inhalation of vapour from water						X			
	Agricultural	Groundwater usage		X							
		Inhalation of vapour from soil						X			
		Produce ingestion						X			
Adjoining site use		Soil ingestion								Not Known	
	Petroleum use	Dermal absorption								Not Known	
X	Industrial/commercial	Maintenance/excavation worker								Not Known	
	Residential	Inhalation of vapour from water								Not Known	
X	Agricultural	Groundwater usage								Not Known	
	Roadway	Inhalation of vapour from soil								Not Known	
		Produce ingestion								Not Known	
17 Ecological risk assessment											
		Significantly impacted		Limited impacted		Not impacted					
Ecological receptors:						X					
Describe all likely receptors:		Maintenance/Excavation workers, Groundwater and Waipu River									

18 Aesthetic issues

	Significantly impacted	Limited impact	Not impacted	Description of impact (if applicable)
Odour			X	No odour detected
Soil Structure			X	
Staining			X	
Vegetation			X	

19 Comments

One sample taken from the area immediately beneath the former bowser (T1BOW 0.5m) returned petroleum hydrocarbon concentrations above MfE guideline criteria for the protection of groundwater. One sample from the southern wall of the tank pit (T1SS) (the wall closest to the bowser) returned petroleum hydrocarbon concentrations above guideline criteria for Industrial all Pathways. A revised tier 1 assessment of these results revealed both samples to have slightly elevated concentrations of the TPH carbon chain C₁₀-C₁₄. Sample T1SS is above the MfE guideline for maintenance/excavation workers and T1BOW 0.5m for the protection of groundwater. Both samples are also above the PAH surrogate value, and were consequently analysed for PAH. This analysis revealed both samples to be within the MfE guideline criteria.

Samples taken in close proximity to the samples that produced elevated results returned petroleum hydrocarbon concentrations within MfE guideline criteria. This shows the contamination remaining onsite to be limited in extent.

Analysis of the chromatograms reveals that the likely residual petroleum hydrocarbon is a mixture of fresh and degraded diesel.

A groundwater bore is present onsite for purposes of vehicle washing and is positioned down-gradient of the source of contamination. A sample was taken from the bores associated holding tank and analysed for TPH and BTEX.

Due to the limited extent of the contamination onsite, it is considered unlikely that any contamination has migrated offsite.

20 Conceptual Site Model Overview
Source

Impacted soil remains at the site beneath the former bowser and on the southern wall of the former tank pit. This contamination remains a source of ongoing contamination of significance to:

- Groundwater
- Maintenance and excavation workers

Groundwater

Sample T1BOW 0.5m from beneath the bowser exceeds the MfE guideline for the protection of groundwater. The contamination associated with this sample is limited in extent and is not considered significant.

A sample was obtained from the onsite groundwater holding tank that is used for vehicle washing. This sample was analysed for TPH and BTEX and all results returned petroleum hydrocarbon concentrations below the practical quantitation limit of the laboratory. Shallow groundwater in the area is used for irrigation and stock. All bores utilised in the area are up-gradient from the site.

Given the above, it is considered that the impact of any contaminant beyond the site boundary is unlikely.

Maintenance / Excavation workers

One sample, T1SS 2m, exceeds the MfE guideline revised tier 1 criteria for Maintenance/Excavation workers. The contamination associated with this sample is limited in extent and is at depth. Accordingly there is limited potential for direct contact with these soils. However, Maintenance/Excavation workers should be familiar with the necessary precautions and personal protection measures for subsurface work at this site.

21 Assessment

Residual contamination at the site exceeds soil acceptance criteria for Protection of Groundwater Quality in a localised area beneath the former bowser location and for Maintenance/Excavation Workers in a localised area on the southern wall of the former tank pit. These localised areas are considered to be of limited significance.

The remaining soils in the vicinity of the former UPSS at the site contain hydrocarbon concentrations that comply with MfE guidelines relevant to ongoing commercial use. Any residual hydrocarbon associated with the UPSS would not limit commercial use of the site.

22 References

Ministry for the Environment, 1999. Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand.

Thompson B N, 1961. Geology of the Whangarei Area. IGNS 1:250,000 Geological Map 2A.

23 Sign-off

Field Work by:	Elaina Boud – Environmental Scientist Sarah Magor – Senior Environmental Scientist	
Reporting by:	Sarah Magor – Senior Environmental Scientist Elaina Boud – Environmental Scientist	
Review by:	Benedict Smith –Environmental Engineer	
Status	Final	June 2006

Disclaimer

This report is based on visual observations of the site and vicinity, conditions which existed at the time of assessment and laboratory analysis of soil samples collected during the investigation. Laboratory analysis for TPH is intended as a screening analysis and indicator of the type of petroleum hydrocarbon contamination present. This information has been used as representative of conditions at the site and to comment on the extent of contamination present.

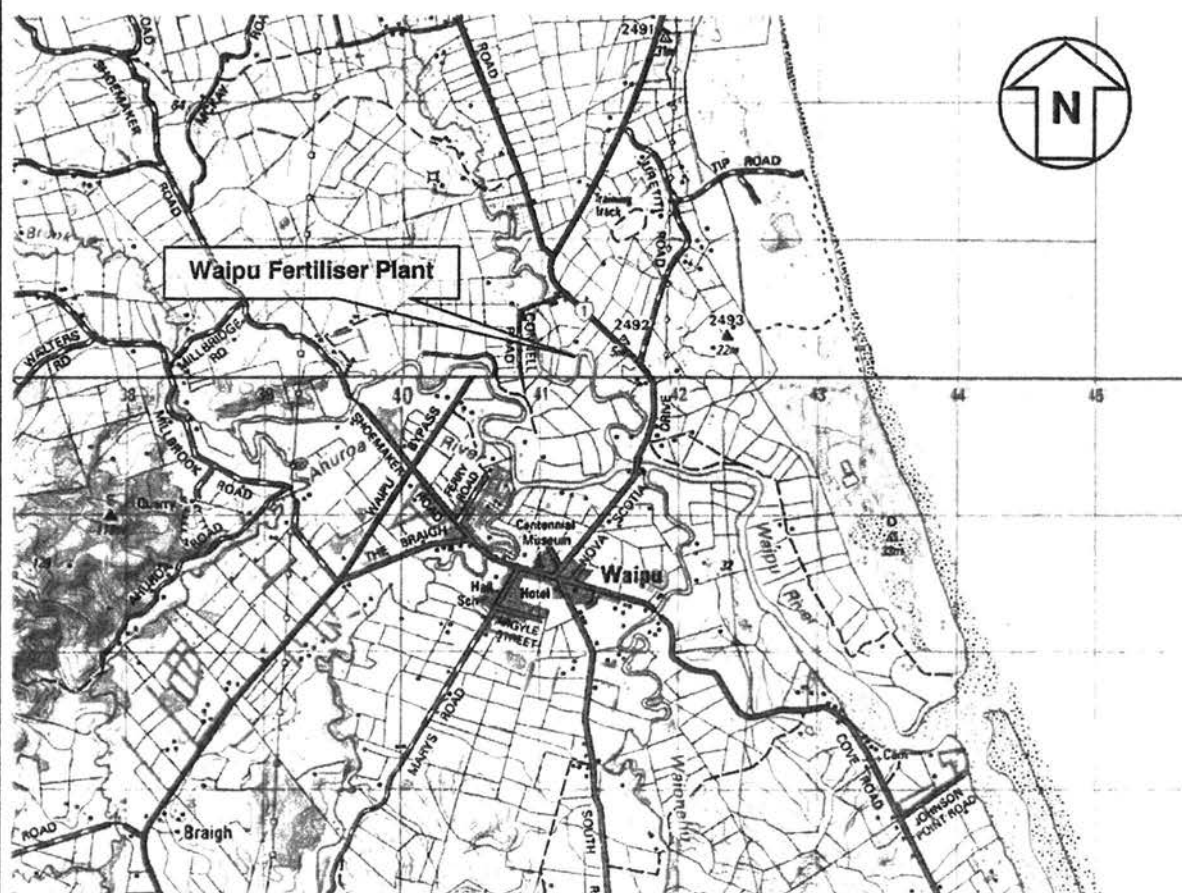
The risk assessment component of this investigation has been performed for this site in accordance with Ministry for the Environment "Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand" and relies on the accuracy of the information contained within these guidelines.

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This disclaimer shall apply notwithstanding that the report may be made available to any person in connection with any application for permission or approval, or pursuant to any requirement of law."

Attachments

Figures	Appendices
Site Location Plan	Field Observations
Site Layout Plan	Photographs
	Analytical result sheets
	Chain of custody



NB Waipu Bypass does actually continue NE to join and continue as SH 1. Top section shows old route of SH1. Other map providers accessed could not not show same scale detail

Shell New Zealand Ltd
Waipu Fertiliser Plant
Tank Removal Validation



Status Stamp Final

Job No.

71017963

Sheet

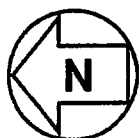
01

Rev.

A

Waipu River

Inferred
Groundwater
Flow Direction



Borehole

Groundwater
holding tank

GW Tank 1 - Sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<0.02	<0.02	<0.2	Water
B	T	E	X
<0.0005	<0.001	<0.001	<0.002

GW Tank 3 - Sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<0.02	<0.02	<0.2	Water
B	T	E	X
<0.0005	<0.001	<0.001	<0.002

Workshop/office

T1S1(E) - Silty clay

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<10	<10	<100	0.7

T1ES_2m - Sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<10	<10	<100	2.0

T1Bed21 - Gravelly sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<10	200	1250	2-2.5

T1NS_2m - Sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<10	<10	<100	2.0

T1WS_2m - Sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<10	<10	<100	2.0

Bowser

T1BOW_SS - Silty clay

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<10	30	508	

T1BOW_0.5m - Silty clay

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
120	2600	7660	0.5
Nap	Py	BaP	
<0.5	0.8	<0.5	

T1BOW_1m - Silty clay

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
50	1700	4670	1.0
Nap	Py	BaP	
1.4	3.6	<0.5	

T1BOW1.5 - Silty clay

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
40	1300	5930	1.5

T1B1_2.5 - Sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
<10	<10	<100	2.5

T1SS_2m - Sand

C ₇ -C ₉	C ₁₀ -C ₁₄	C ₁₅ -C ₃₆	D (m)
80	6700	19000	2.0
Nap	Py	BaP	
<0.5	14	<0.5	

Connell Road

SCALES - N.T.S.

	INIT	DATE
DESIGNED	SM	10/05
DRAWN	SM	10/05
CHECKED	BS	10/05
APPROVED	BS	10/05

Shell New Zealand Ltd

Connell Road

Tank Removal Validation

FIGURE 2 SITE PLAN WITH ANALYTICAL RESULTS



MWH

Status Stamp Final

Date September 2005

Job No.
Z1017963

Sheet No.
01

Rev.
A

Appendix A

Field Observations

FIELD OBSERVATIONS (Field Screening Results- if applicable)

This appendix lists the samples collected and relevant site observations.

Sampling (locations shown on plan, ensure sample numbers are same as those represented on site plan)

Sample #	Location	Depth (m bgl)	Soil type /staining	Odour/ PID	Remains/ removed
T1Bow surface scraping	Bowser, surface scraping	0.05	Silty clay	No odour	Remaining
T1Bow1m	Bowser	1.0	Silty clay	No odour	Remaining
T1Bow0.5m	Bowser	0.5	Silty clay	No odour	Remaining
T1B12.5m	Bowser	2.5	Sand	No odour	Remaining
T1NS2m	Tank 1 North side	2	Sand	No odour	Remaining
T1ES2m	Tank 1 East side	2	Sand	No odour	Remaining
T1WS2m	Tank 1 West side	2	Sand	No odour	Remaining
T1Bow1.5m	Bowser	1.5	Silty clay	No odour	Remaining
T1Bow4, 1.5m	Bowser	1.5	Silty clay	No odour	Remaining
T1S1(E)0.7m	Tank 1 shallow sample, eastern wall	0.7	Silty clay	No odour	Remaining
T1Bed 2-2.5m	Tank 1 Bedding material	2.5	Gravelly sand	No odour	Remaining
T1SS2m	Tank 1 South side	2	Sand	No odour	Remaining
GW Tank 1 (water sample)	Groundwater holding tank from borehole	N/A	Clear	No odour	
GW Tank 3 (water sample)	Duplicate sample of GW Tank 1	N/A	Clear	No odour	

Appendix B

Photographs

Site Photos



View to the North of the site.



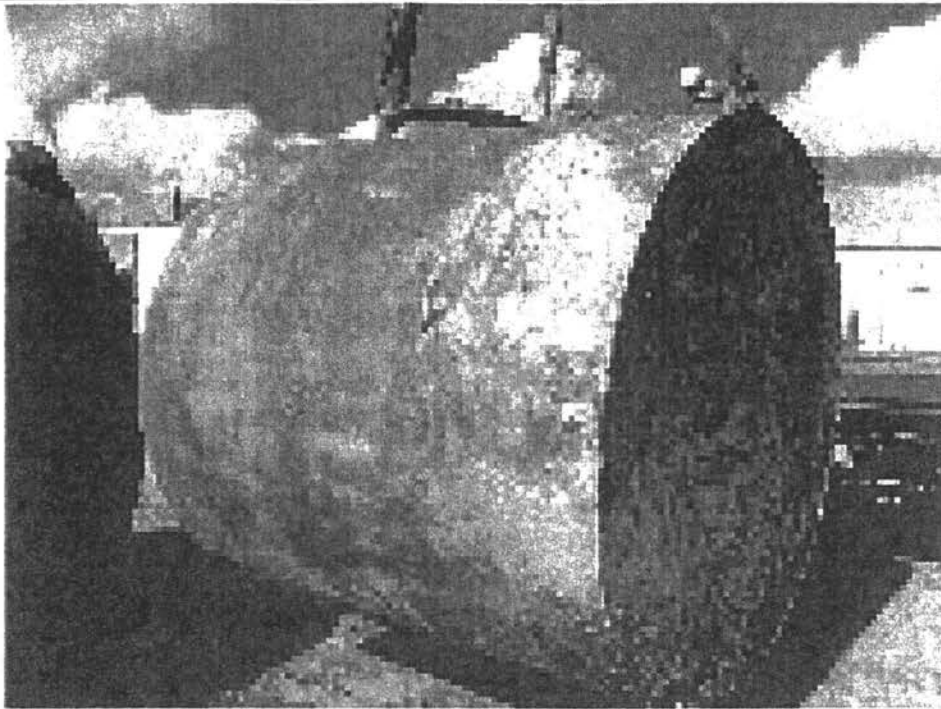
View to the East of the site.



View to the South of the site.



View to the West of the site.



Removed tank.



Tank pit



South side where bowser was located

Appendix C

Analytical Result Sheets



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CERTIFICATE OF ANALYSIS

Contents :

1. Cover Pages (2)
2. Analysis Report Pages
3. QA/QC Appendix
4. Additional Reports - External
(if applicable)
5. Chain of Custody (if applicable)

Report No. : 5Q0412

Attention : Bronwyn Dumbleton

Client : MWH New Zealand Ltd
: PO Box 9624
: WELLINGTON NEW ZEALAND

Samples : 14

Reference/Order : Z1017963

Project : WAIPU FERTILISER PLANT

Received Samples : 16/09/05 **Instructions** : 16/09/05

Date Reported : 23/09/05

PLEASE SEE FOLLOWING PAGES FOR METHOD LISTING AND RESULTS

RESULTS

All samples were analysed as received. This report relates specifically to the samples as received. Results relate to the source material only to the extent that the samples as supplied are truly representative of the sample source. This report replaces any preliminary results issued. Note that for methods indicated with "#", NATA accreditation does not cover the performance of this service. Three significant figures (or 2 for < 10PQL) are reported for statistical purposes only. Where "Total" concentrations are reported for organic suites of compounds this is the summation of the individual compounds and the PQL is noted for reporting purposes only. This report has been authorized by the NATA signatories listed in the method descriptions section on the following page.

Darrel Luck Ass. Dip. Applied Sc.(Chem.)
Team Leader - Metals

Peter Keyte B.Sc.(Chem.)
Senior Chemist - Inorganics

Mark Fahmy B.Sc.
Team Leader - SVOC



Report No. : 5Q0412

Please note: Where samples are collected/submitted over several days, the date on which the last samples were analysed or extracted is reported.

Unless Ferrous Iron is determined on site, the possibility of a ferrous-ferric ratio change may occur.

<u>Method</u>	<u>Description</u>	<u>Extracted</u>	<u>Analysed</u>	<u>Authorised</u>
E7500	Moisture (%w/w)	20/09/05	20/09/05	MFA 096
E1220N	Total Petroleum Hydrocarbons	19/09/05	20/09/05	GTO 094
E0220	Total Petroleum Hydrocarbon Screen	20/09/05	21/09/05	GTO 094
E0010	Benzene, Toluene, Ethylbenzene & Xylene	20/09/05	20/09/05	GTO 094



NATA Signatory

<u>Initials</u>	<u>Name</u>	<u>Sections/Methods</u>
MFA	Mark Fahmy	094, 095, 096
GTO	Greg Towers	094, 096
DLU	Darrel Luck	093, 096
MAV	Merrin Avery	101, 096
DBL	Dianne Blane	101, 096
NCO	Nathan Cooper	101, 096
AGR	Alison Graham	101, 096
PKE	Peter Keyte	101, 096, 097, 098



Job Number : 5Q0412
 Client : MWH New Zealand Ltd
 Reference : Z1017963
 Project : WAIPU FERTILISER PLANT

Page 1 of 3
 plus Cover Page

	Lab No	E221732	E221733	E221734	E221735	E221736
		T1BOW_SS	T1BOW_1m	T1BOW.5m	T1B1_2.5	T1NS_2m
Analyte	Sample Id	14.9.05	14.9.05	14.9.05	14.9.05	14.9.05
	PQL					
E7500 Moisture (%w/w) in Soil						
<i>Moistures test performed at 105oC</i>						
Moisture Content	1	25%	30%	26%	23%	19%
E1225 TPH in Soil						
C7-C9 Fraction	10	nd	50	120	nd	nd
C10-C14 Fraction	10	30	1700	2600	nd	nd
C15-C36 Fraction	100	508	4670	7660	nd	nd
E0220N TPH in Water (mg/L)						
C7-C9 Fraction	0.02	--	--	--	--	--
C10-C14 Fraction	0.02	--	--	--	--	--
C15-C36 Fraction	0.2	--	--	--	--	--
E0015 BTEX (P&T) in Water (mg/L)						
Benzene	0.0005	--	--	--	--	--
Toluene	0.001	--	--	--	--	--
Ethylbenzene	0.001	--	--	--	--	--
m&p-Xylene	0.002	--	--	--	--	--
o-Xylene	0.001	--	--	--	--	--
4-Bromofluorobenzene-SURROGATE	1	--	--	--	--	--

PQL = Practical Quantitation Limit
 LNR = Samples Listed not Received
 nd = < PQL
 -- = Not Applicable

Soils : mg/kg (ppm) dry weight unless otherwise specified
 Waters : mg/L (ppm) unless otherwise specified in Method Header
 Leachates : mg/L (ppm) in leachate unless otherwise specified in Method Header

Refer to Amdel standard laboratory qualifier codes for comments.



Job Number : 5Q0412
 Client : MWH New Zealand Ltd
 Reference : Z1017963
 Project : WAIPU FERTILISER PLANT

Page 2 of 3
 plus Cover Page

	Lab No	E221737	E221738	E221739	E221740	E221741
		T1ES_2m	T1WS_2m	T1BOW1.5	T1BOW4	T1S1(E)
Analyte	Sample Id	14.9.05	14.9.05	14.9.05	1.5m	0.7m
	PQL					
E7500 Moisture (%w/w) in Soil						
Moistures test performed at 105oC						
Moisture Content	1	19%	18%	29%	30%	30%
E1225 TPH in Soil						
C7-C9 Fraction	10	nd	nd	40	40	nd
C10-C14 Fraction	10	nd	nd	1300	1200	nd
C15-C36 Fraction	100	nd	nd	5930	5660	nd
E0220N TPH in Water (mg/L)						
C7-C9 Fraction	0.02	--	--	--	--	--
C10-C14 Fraction	0.02	--	--	--	--	--
C15-C36 Fraction	0.2	--	--	--	--	--
E0015 BTEX (P&T) in Water (mg/L)						
Benzene	0.0005	--	--	--	--	--
Toluene	0.001	--	--	--	--	--
Ethylbenzene	0.001	--	--	--	--	--
m&p-Xylene	0.002	--	--	--	--	--
o-Xylene	0.001	--	--	--	--	--
4-Bromofluorobenzene-SURROGATE	1	--	--	--	--	--

PQL = Practical Quantitation Limit
 LNR = Samples Listed not Received
 nd = < PQL
 -- = Not Applicable

Soils : mg/kg (ppm) dry weight unless otherwise specified
 Waters : mg/L (ppm) unless otherwise specified in Method Header
 Leachates : mg/L (ppm) in leachate unless otherwise specified in Method Header

Refer to Amdel standard laboratory qualifier codes for comments.



Job Number : 5Q0412

Client : MWH New Zealand Ltd

Reference : Z1017963

Project : WAIPU FERTILISER PLANT

Page 3 of 3

plus Cover Page

	Lab No	E221742	E221743	E221744	E221849	
		T1BED2-	T1SS_2m	GW_TANK	GW_TANK	
Analyte	Sample Id	2.5m	14.9.05	1	3	
	PQL					
E7500 Moisture (%w/w) in Soil						
<i>Moistures test performed at 105oC</i>						
Moisture Content	1	14%	23%	--	--	
E1225 TPH in Soil						
C7-C9 Fraction	10	nd	80	--	--	
C10-C14 Fraction	10	200	6700	--	--	
C15-C36 Fraction	100	1250	19000	--	--	
E0220N TPH in Water (mg/L)						
C7-C9 Fraction	0.02	--	--	nd	nd	
C10-C14 Fraction	0.02	--	--	nd	nd	
C15-C36 Fraction	0.2	--	--	nd	nd	
E0015 BTEX (P&T) in Water (mg/L)						
Benzene	0.0005	--	--	nd	nd	
Toluene	0.001	--	--	nd	nd	
Ethylbenzene	0.001	--	--	nd	nd	
m&p-Xylene	0.002	--	--	nd	nd	
o-Xylene	0.001	--	--	nd	nd	
4-Bromofluorobenzene-SURROGATE	1	--	--	87%	81%	

PQL = Practical Quantitation Limit
 LNR = Samples Listed not Received
 nd = < PQL
 -- = Not Applicable

Soils : mg/kg (ppm) dry weight unless otherwise specified
 Waters : mg/L (ppm) unless otherwise specified in Method Header
 Leachates : mg/L (ppm) in leachate unless otherwise specified in Method Header

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(if applicable)
5. Chain of Custody (if applicable)

Report No. : 5Q0412A

Attention : Bronwyn Dumbleton

Client : MWH New Zealand Ltd
: PO Box 9624
: WELLINGTON NEW ZEALAND

Samples : 4

Reference/Order : Z1017963

Project : WAIPU FERTILISER PLANT

Received Samples : 16/09/05 **Instructions** : 26/09/05

Date Reported : 28/09/05

PLEASE SEE FOLLOWING PAGES FOR METHOD LISTING AND RESULTS

RESULTS

All samples were analysed as received. This report relates specifically to the samples as received. Results relate to the source material only to the extent that the samples as supplied are truly representative of the sample source. This report replaces any preliminary results issued. Note that for methods indicated with "#", NATA accreditation does not cover the performance of this service. Three significant figures (or 2 for < 10PQL) are reported for statistical purposes only. Where "Total" concentrations are reported for organic suites of compounds this is the summation of the individual compounds and the PQL is noted for reporting purposes only. This report has been authorized by the NATA signatories listed in the method descriptions section on the following page.

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Team Leader - Metals

Peter Keyte B.Sc.(Chem.)
Senior Chemist - Inorganics

Mark Fahmy B.Sc.
Team Leader - SVOC



Report No. : 5Q0412A

Please note: Where samples are collected/submitted over several days, the date on which the last samples were analysed or extracted is reported.

Unless Ferrous Iron is determined on site, the possibility of a ferrous-ferric ratio change may occur.

<u>Method</u>	<u>Description</u>	<u>Extracted</u>	<u>Analysed</u>	<u>Authorised</u>
E7500	Moisture (%w/w)	26/09/05	26/09/05	MFA 096
E1110	Polycyclic Aromatic Hydrocarbons	26/09/05	27/09/05	MFA 095



NATA Signatory

<u>Initials</u>	<u>Name</u>	<u>Sections/Methods</u>
MFA	Mark Fahmy	094, 095, 096
GTO	Greg Towers	094, 096
DLU	Darrel Luck	093, 096
MAV	Merrin Avery	101, 096
DBL	Dianne Blane	101, 096
NCO	Nathan Cooper	101, 096
AGR	Alison Graham	101, 096
PKE	Peter Keyte	101, 096, 097, 098



Job Number : 5Q0412A

Client : MWH New Zealand Ltd

Reference : Z1017963

Project : WAIPU FERTILISER PLANT

Page 1 of 1

plus Cover Page

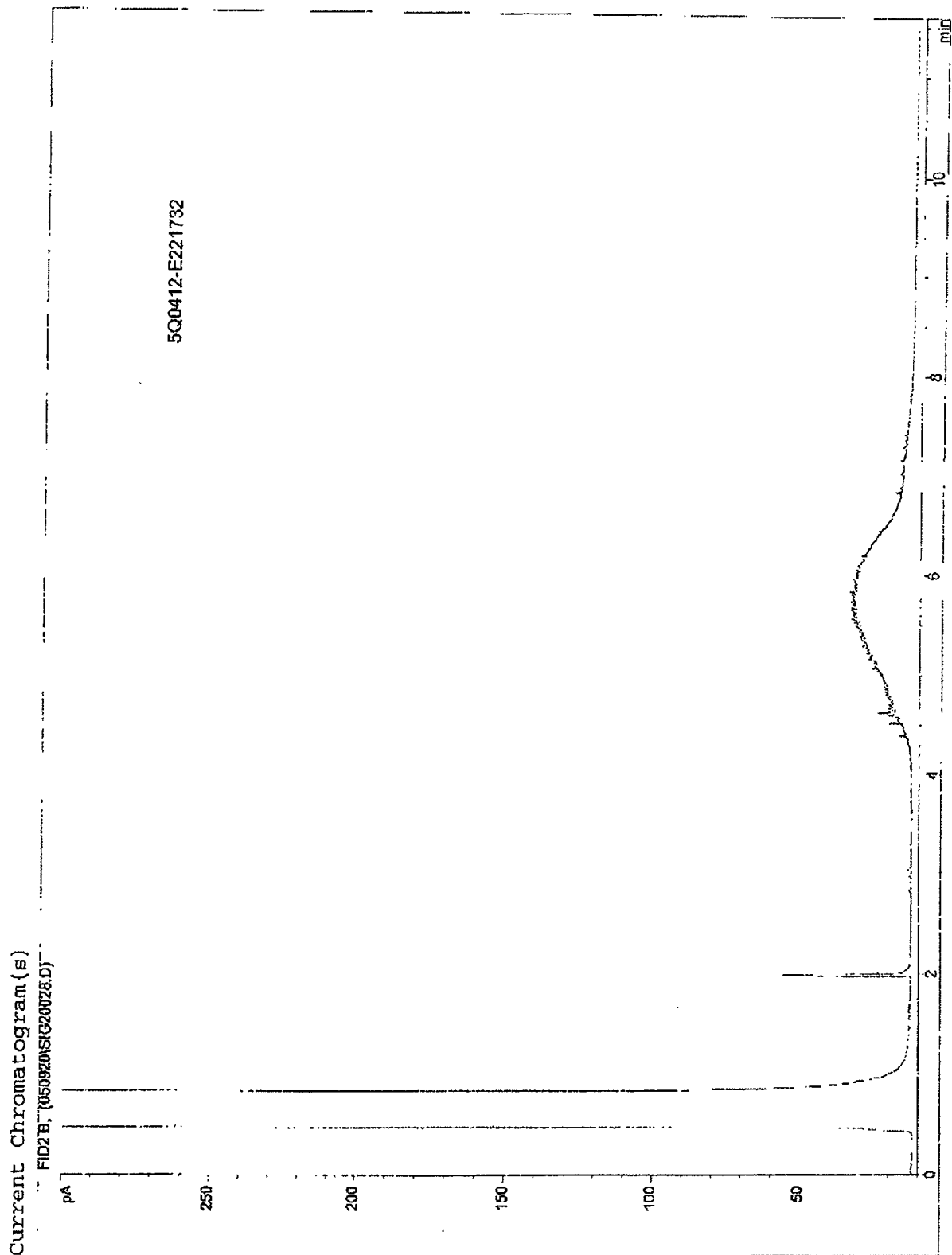
	Lab No	E221743	E221734	E221733	E221739	
		T1SS_2m	T1BOW.5m	T1BOW_1m	T1BOW1.5	
Analyte	Sample Id	14.9.05	14.9.05	14.9.05	14.9.05	
	PQL					
E7500 Moisture (%w/w) in Soil						
<i>Moistures test performed at 105oC</i>						
Moisture Content	1	23%	26%	30%	29%	
E1110 Priority PAH's in Soil						
Naphthalene	0.5	nd	nd	1.4	0.8	
Acenaphthylene	0.5	nd	nd	nd	nd	
Acenaphthene	0.5	1.8	nd	nd	nd	
Fluorene	0.5	3.0	nd	1.0	1.4	
Phenanthrene	0.5	2.6	nd	1.6	2.6	
Anthracene	0.5	nd	nd	nd	nd	
Fluoranthene	0.5	nd	nd	nd	nd	
Pyrene	0.5	14	0.8	3.6	2.4	
Benz(a)anthracene	0.5	nd	nd	nd	nd	
Chrysene	0.5	nd	nd	nd	nd	
Benzo(b) & (k)fluoranthene	1	nd	nd	nd	nd	
Benzo(a)pyrene	0.5	nd	nd	nd	nd	
Indeno(1.2.3-cd)pyrene	0.5	nd	nd	nd	nd	
Dibenz(a,h)anthracene	0.5	nd	nd	nd	nd	
Benzo(g,h,i)perylene	0.5	nd	nd	nd	nd	
Total USEPA Priority PAHs	0.5	22	0.8	7.6	7.2	
2-Fluorobiphenyl-SURROGATE	1	82%	88%	91%	84%	
Anthracene-d10-SURROGATE	1	73%	80%	83%	79%	
p-Terphenyl-D14-SURROGATE	1	84%	84%	86%	80%	

PQL = Practical Quantitation Limit
 LNR = Samples Listed not Received
 nd = < PQL
 -- = Not Applicable

Soils : mg/kg (ppm) dry weight unless otherwise specified
 Waters : mg/L (ppm) unless otherwise specified in Method Header
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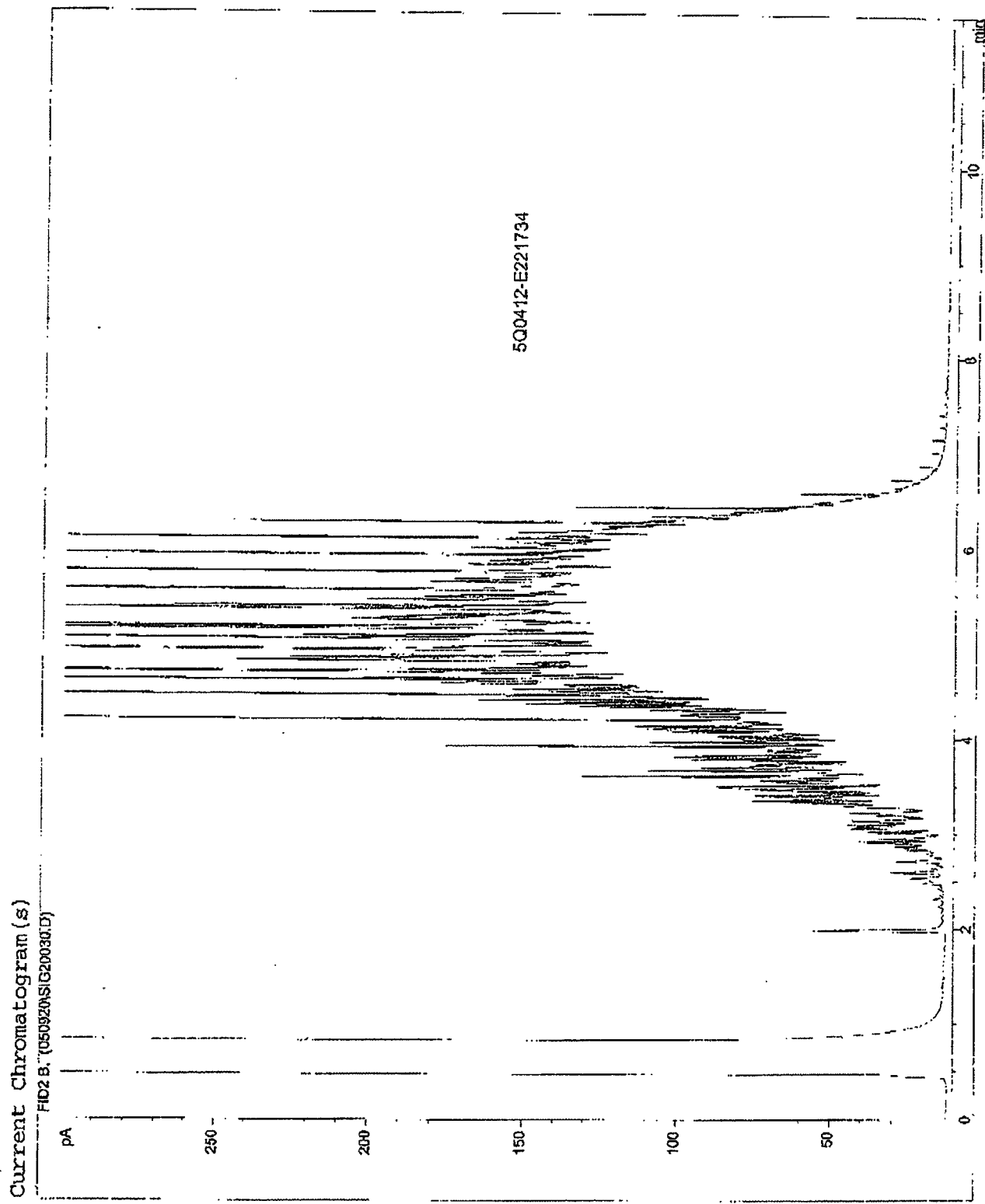
Refer to Amdel standard laboratory qualifier codes for comments.

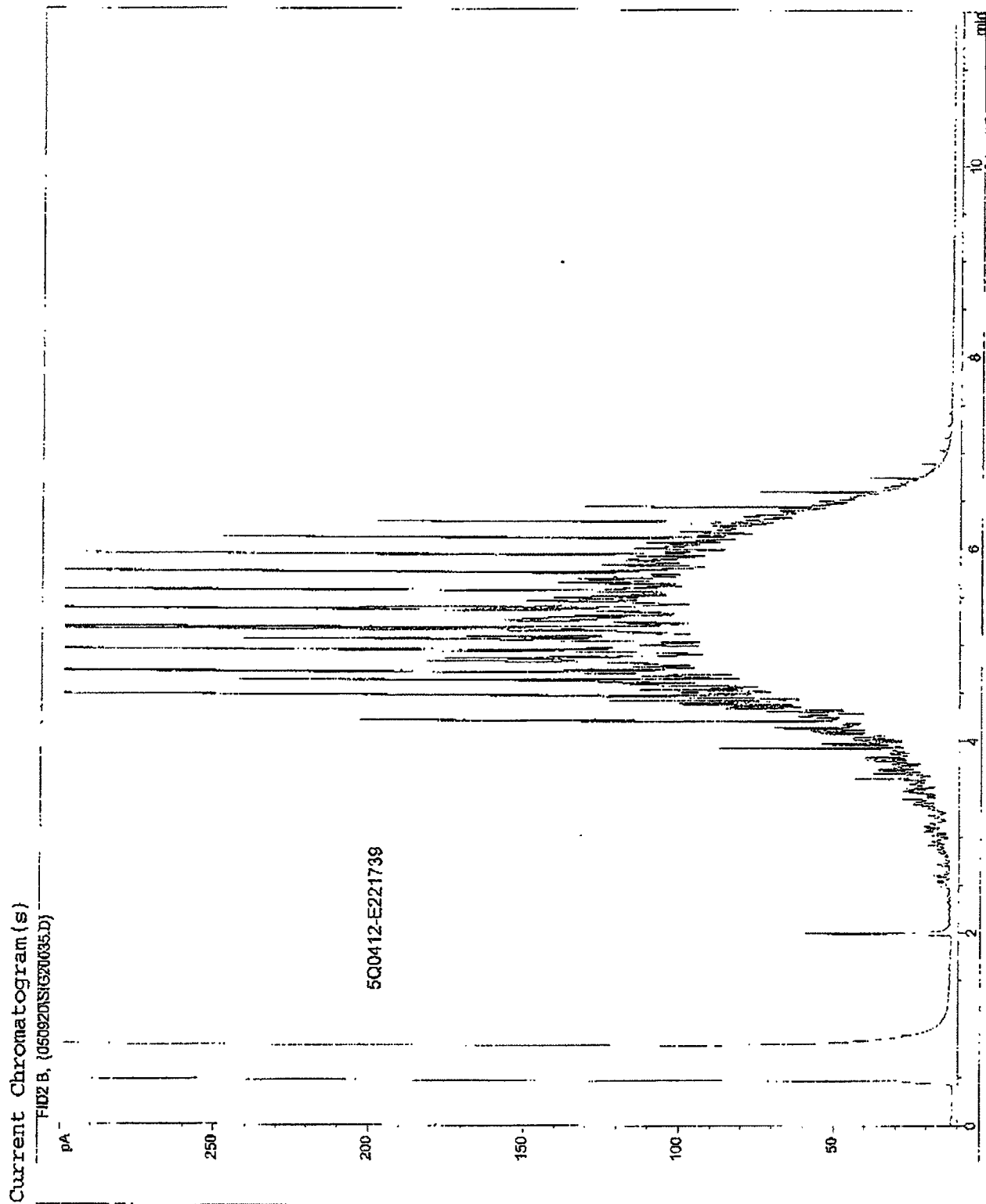
Print of window 38: Current Chromatogram(s)

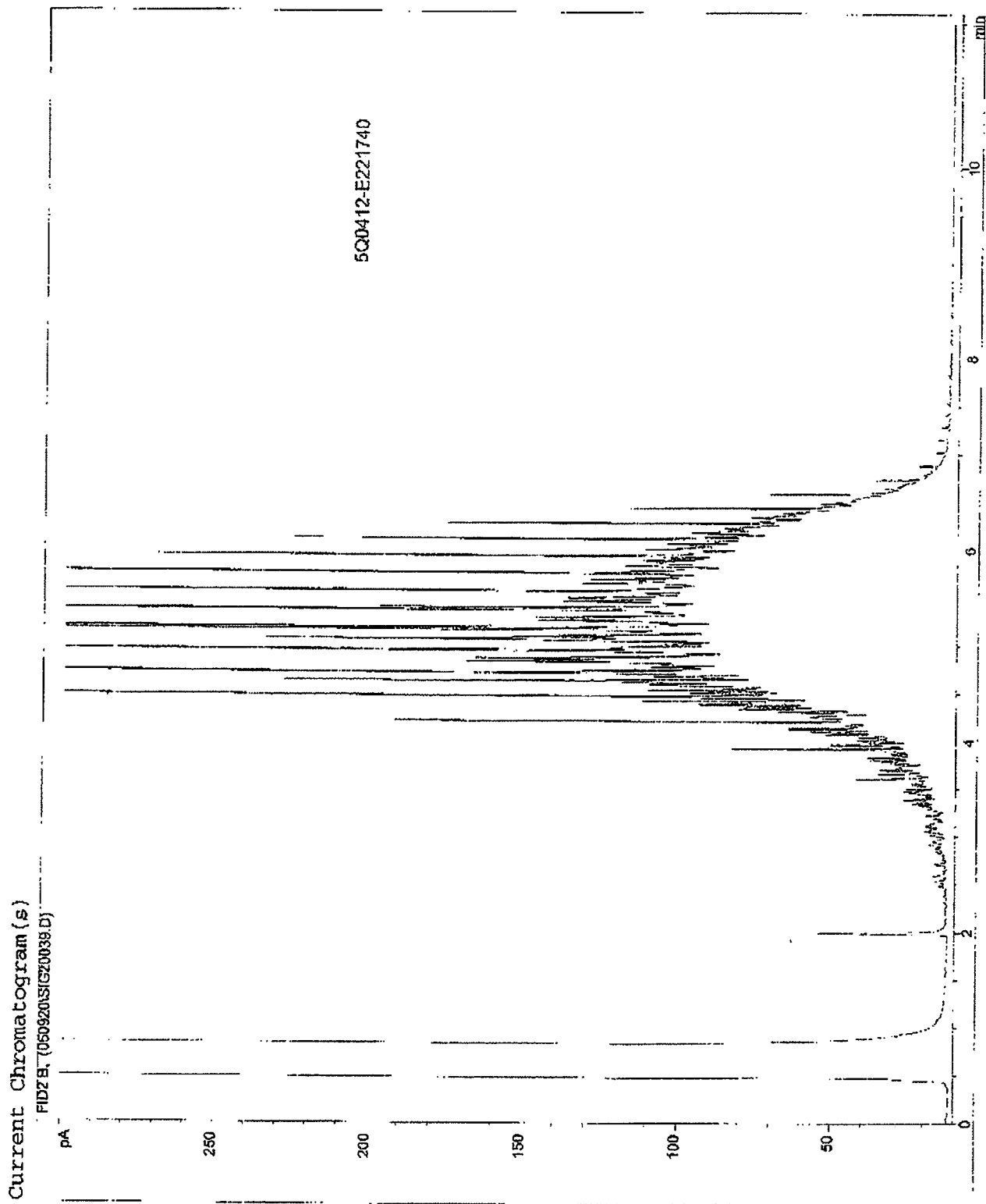


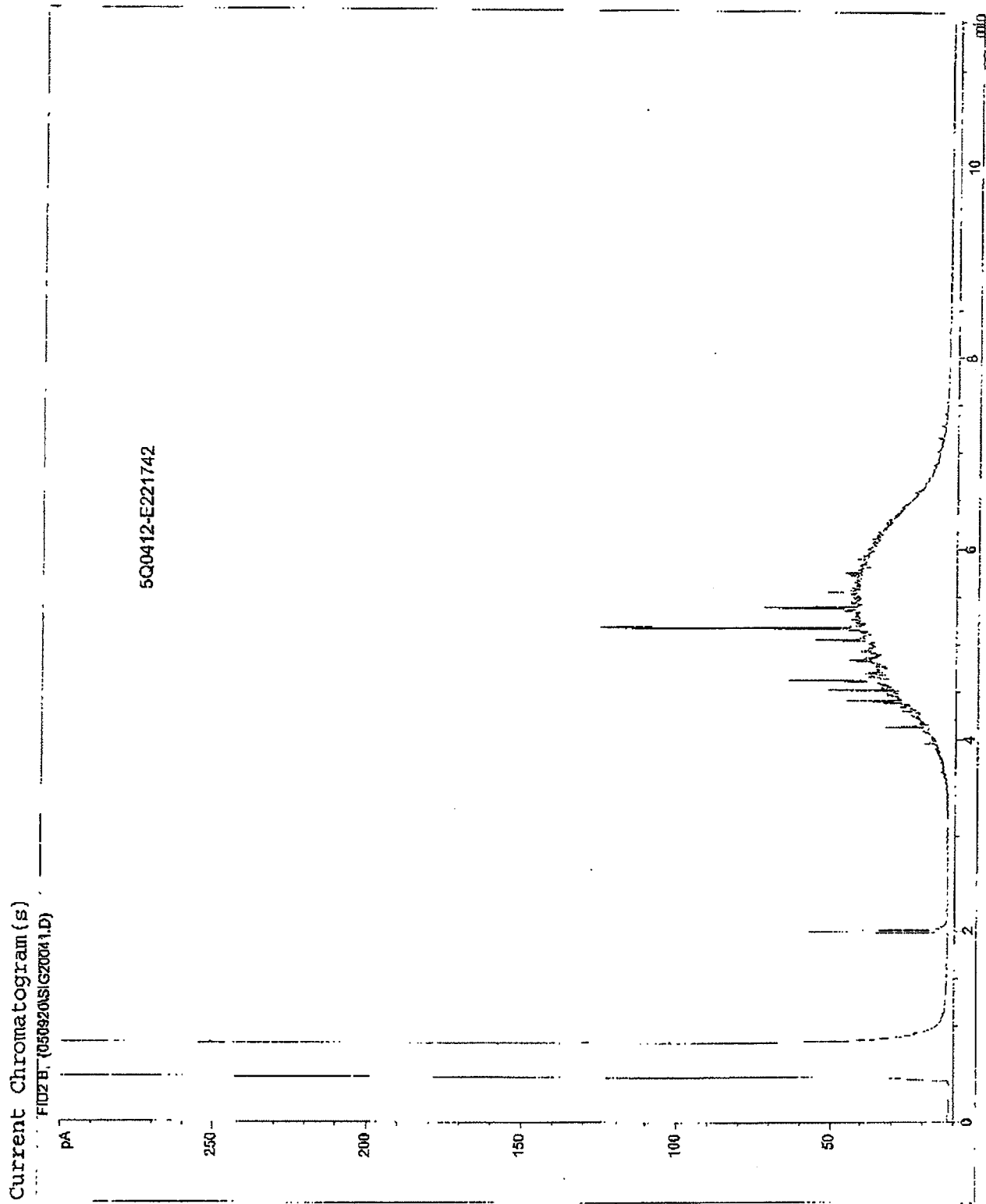
Instrument 1 21/09/2005 3:29:14 PM shanker

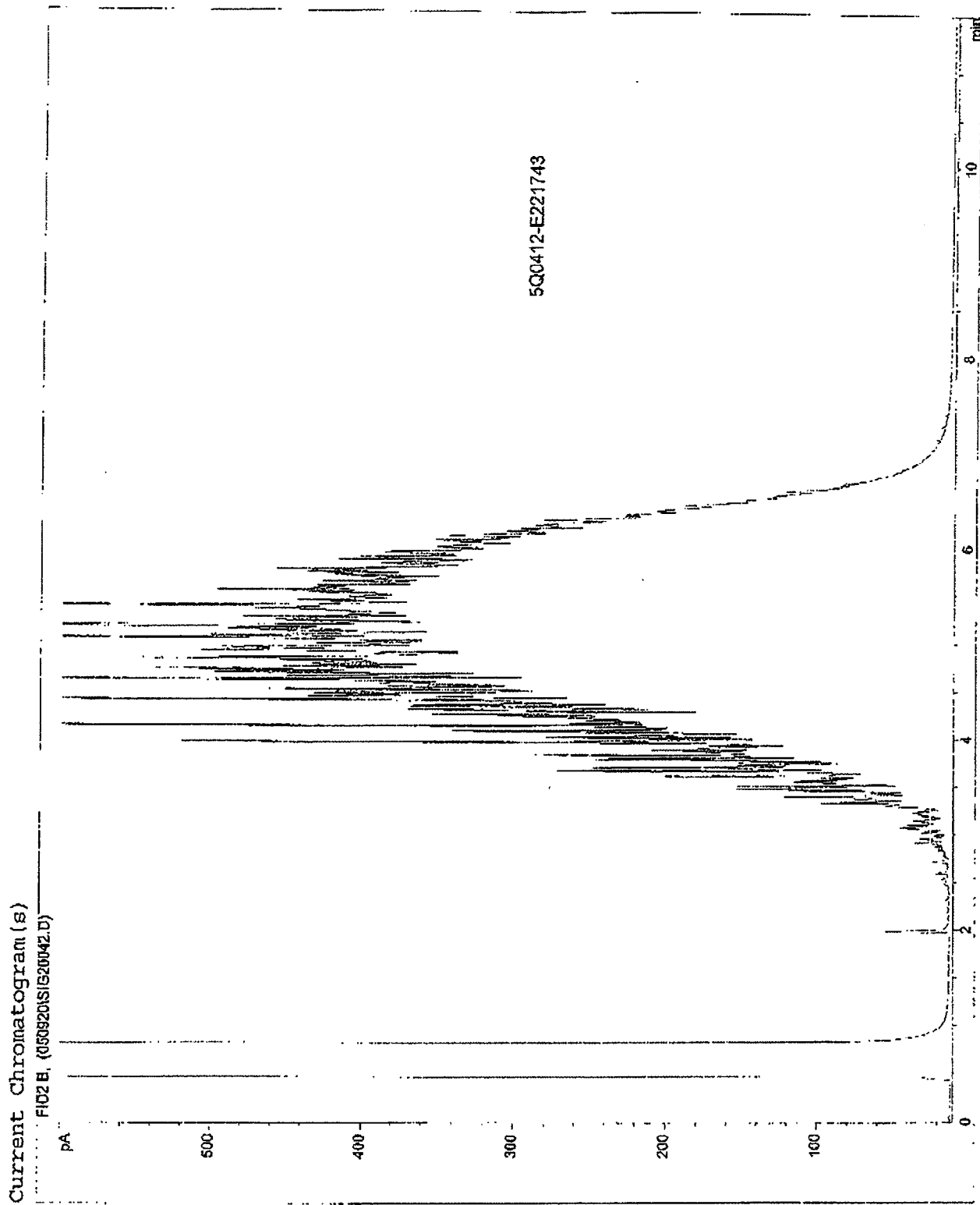












Appendix D

Chain of Custody

Enviro Sydney

From: Bronwyn Dumbleton [Bronwyn.Dumbleton@nz.mwhglobal.com]
Sent: Monday, 26 September 2005 12:01 PM
To: Enviro Sydney
Cc: Elaine Boud; Sarah E Magor

Hi Kim

Please delete T1BOW_4 from the list, of the samples to be analysed for PAH. Thanks Bronwyn

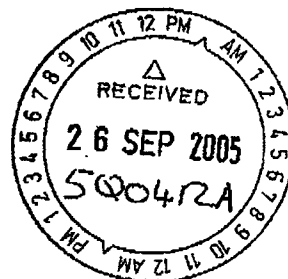
Hi Kim

Could we please specify PAH analysis on the following samples (5Q0412)

T1SS_2 (E221743)
T1BOW.5 (E221734)
T1BOW_1 (E221733)
T1BOW_1.5 (E221739)
T1BOW_4 (E221740)

If you require any further information please do not hesitate to contact us.

Kind Regards
Bronwyn



Rebatched by
Liz Pittstock