

10 April 2013

Blackstone Quarries Limited
PO Box 36322
Merivale
Christchurch 8146



Customer Services
P. 03 353 9007 or 0800 324 636

PO Box 345
Christchurch 8140

P. 03 365 3828
F. 03 365 3194
E. ecinfo@ecan.govt.nz
www.ecan.govt.nz

Dear Sir/Madam

NOTICE OF RESOURCE CONSENT DECISION(S)

RECORD NO: CRC122054

NAME: Blackstone Quarries Limited

The decision of Environment Canterbury is to grant your application(s) on the terms and conditions specified in the attached resource consent document(s). Your resource consent(s) commences from the date of this letter advising you of the decision. The reasons for the decision are:

1. Any adverse effects on the environment as a result of the proposed activity will be minor.
2. There are no persons considered to be adversely affected by this proposal.

For some activities a report is prepared, with officer recommendations, to provide information to the decision makers. If you require a copy of the report please contact our Customer Services section.

If you do not agree with the consent authority decision, you may object to the whole or any part. Notice of any objection must be in writing and lodged with Environment Canterbury within 15 working days of receipt of this decision.

Alternatively you may appeal to the Environment Court, PO Box 2069, Christchurch. The notice of appeal must be lodged with the Court within 15 working days of receipt of this decision, with a copy forwarded to Environment Canterbury within the same timeframe. If you appeal this decision, the commencement date will then be the date on which the decision on the appeal is determined. If you are in any doubt about the correct procedures, you should seek legal advice.

You can find online information about your consent document at <http://ecan.govt.nz/publications/General/YourConsentDocumentBooklet09.pdf> and also information regarding the monitoring of your consent at <http://ecan.govt.nz/publications/General/monitoring-your-consent-booklet.pdf>. These booklets contain important information about your consent and answers some commonly asked questions about what will happen next in the life of your resource consent. There is an Annual Compliance Monitoring Charge associated with every consent. For details of this, please refer to page 10 of the "Monitoring Your Consent" booklet.

Our Ref: CO6C/26274
Your Customer No: EC101495,EC298900
Contact: Customer Services

Environment Canterbury takes every measure to improve both applications and processes, and we appreciate your feedback as an important component in ensuring this occurs. You can complete a consents survey on-line at <http://www.ecan.govt.nz/services/resource-consents/pages/surveys.aspx>. Alternatively, you can call our Customer Services Section on 0800 EC INFO who will be happy to complete the survey with you.

Charges, set in accordance with section 36 of the Resource Management Act 1991, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under section 35 of the Act.

Thank you for helping us make Canterbury a great place to live.

For all queries please contact our Customer Services Section by telephoning (03) 353 9007, 0800 ECINFO (0800 324 636), or email ecinfo@ecan.govt.nz quoting your CRC number above.

Yours sincerely

A handwritten signature in black ink, appearing to be 'J. S.', written in a cursive style.

CONSENTS PLANNING SECTION

CC Address:

LF Consulting
Attn To: Richard Lloyd
1314 West Coast Road
RD 1
Christchurch 7671

RESOURCE CONSENT CRC122054

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO:	Blackstone Quarries Limited
A DISCHARGE PERMIT:	To discharge stormwater onto and into land that may contain contaminants from the stockpiling of mixed demolition materials
COMMENCEMENT DATE:	10 Apr 2013
EXPIRY DATE:	10 Apr 2018
LOCATION:	325 Old West Coast Road, YALDHURST

SUBJECT TO THE FOLLOWING CONDITIONS:

ACTIVITY

- 1 The discharge shall be only:
 - (a) Stormwater collected from a:
 - (i) compacted, mixed demolition waste, storage pad and wider in-quarry area;
 - (ii) diversion channel;
 - (iii) fore-bay; and
 - (iv) soakage basin; and
 - (b) wash water from a truck-wash facility;
as shown on Plan CRC122054A, which forms part of this consent.

- 2 The stormwater shall be discharged into land at 325 Old West Coast Road, Yaldhurst, Christchurch at or about map reference NZ Topo50 BX23:5525-8288 (NZMS 260 M35:6525-4450), via a soakage basin.

LIMITS

- 3 All stormwater generated by the compacted waste storage pad and wider in-quarry area, as indicated by the triangular shaded area of Plan CRC122054A, shall be directed to either the:
 - (a) diversion channel;
 - (b) fore-bay; or
 - (c) soakage basin.

- 4 The catchment area discharging to the stormwater system shall:
- (a) Generally be as defined by the triangular shaded area as shown in Plan CRC122054A; and
 - (b) Not exceed 1692 square metres in total area.
- 5 The truck-wash area discharging to the stormwater system shall:
- (a) Generally be located as shown in Plan CRC122054A; and
 - (b) Not exceed 400 square metres in total area.
- 6 Within ten working days of the installation or use of the stormwater system, a certificate shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, to certify that the stormwater system complies with Conditions (1) to (5) and (7) to (12) of this consent. The certificate shall be signed by a Chartered Professional Engineer (CPEng) with stormwater system construction experience. This CPEng shall also sign a statement confirming that they are competent to certify the engineering work.

STORMWATER SYSTEM

- 7 The compacted storage pad shall be:
- (a) Constructed from a layer of silt and clay to a depth of not less than 0.5 metres;
 - (b) Constructed to have a permeability into land through the pad, that does not exceed 0.36 millimetres per hour;
 - (c) Located within the triangular shaded area of Plan CRC122054A; and
 - (d) Located uphill from, and to the west of, the diversion channel.
- 8 The stormwater diversion channel, fore-bay, and soakage basin shall have a combined capacity of not less than 700 cubic metres.
- 9 Stormwater in excess of the capacity of the stormwater system shall run onto the quarry floor.
- 10 The stormwater diversion channel and fore-bay shall be lined on the base and sides with a layer of silt and clay at least 0.3 metres thick, with a permeability that does not exceed 0.36 millimetres per hour.

- 11 The stormwater fore-bay shall:
- (a) have an infiltration base no lower than 44.10 metres above mean sea level (AMSL);
 - (b) have an infiltration rate not exceeding 112 millimetres per hour and not less than 18 millimetres per hour as determined using a double ring infiltrometer test;
 - (c) have an infiltration rate not exceeding 75 millimetres per hour and not less than 12 millimetres per hour as determined using a flooded basin test; and
 - (d) be protected against erosion and scour at the inlet.
- 12 The stormwater soakage basin shall:
- (a) have an infiltration base no lower than 43.90 metres AMSL;
 - (b) have an infiltration rate not exceeding 112 millimetres per hour and not less than 18 millimetres per hour as determined using a double ring infiltrometer test;
 - (c) have an infiltration rate not exceeding 75 millimetres per hour and not less than 12 millimetres per hour as determined using a flooded basin test; and
 - (d) be protected against erosion and scour at the inlet.
- 13 Within one month of the first exercise of this consent the consent holder shall inform, in writing, the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager of the date on which this consent was first exercised.

MAINTENANCE

- 14 The maintenance of the stormwater system shall include, but not be limited to:
- (a) inspecting the diversion channel, fore-bay, and soakage basin at least once every three months;
 - (b) removing any visible hydrocarbons, debris or litter within five working days of the inspection;
 - (c) removing any accumulated sediment in the diversion channel, fore-bay, and soakage basin that is greater than 10 square metres. This removal shall occur within five working days of the inspection; and
 - (d) repairing any scour or erosion within five working days of the inspection.

MONITORING REQUIREMENTS

- 15 Prior to this consent first being exercised:
- (a) Two monitoring bores of minimum diameter 50 millimetres shall be installed on the down-gradient side of the soakage basin site in relation to the direction of groundwater flow as generally indicated on Plan CRC122054B, which forms part of this consent;
 - (b) One monitoring bore of a minimum diameter 50 millimetres shall be installed

on the up-gradient side of the soakage basin site in relation to the direction of groundwater flow as indicated on Plan CRC122054B; and

- (c) The bores installed in accordance with (a) and (b) above shall enter the aquifer immediately underlying the site, and shall be screened over an interval of 0.5 metres above the highest recorded groundwater level at the site and 0.5 metres below the lowest recorded groundwater level at the site.

- 16 From the date that this consent is first exercised, representative samples shall be collected from the two down-gradient bores:
- (a) at least once every three months; and
 - (b) by a person who has at least one years work experience in water sampling.
- 17 At the times of the first four occasions of sampling of groundwater in accordance with Condition (16) the depth to groundwater in all the bores from which samples are taken shall be determined to the nearest centimetre from a surveyed datum point.
- 18 All samples taken in accordance with Condition (16) shall be analysed;
- (a) in a laboratory accredited for that method by International Accreditation New Zealand or an equivalent accreditation body;
 - (b) with detection limits no greater than 20 times less than the trigger levels set out in Table CRC122054C, which forms part of this consent; and
 - (c) for the contaminants and parameters listed in Table CRC122054C.
- 19 Every fourth sample taken from each down-gradient bore, in accordance with Condition (16), shall also be analysed:
- (a) for volatile organic compounds and semi-volatile organic compounds; and
 - (b) using methods approved by the United States Environmental Protection Agency or the American Public Health Association for the analysis of such compounds.
- 20 The results of the groundwater analyses, the name of the person taking the samples, the date and time of sampling, and depth to groundwater when measured in accordance with Condition (17), shall be provided to the Canterbury Regional Council within 10 working days of the receipt of the analytical results by the consent holder.

- 21 If the results of analysis of samples taken in accordance with Condition (16) show that any of the concentrations of contaminants or values of parameters determined exceed those given in Table CRC122054C, the consent holder shall within one month:
- (a) obtain a second sample of groundwater from the bores sampled in accordance with Condition (16), and obtain a sample of groundwater from the up-gradient bore specified in Condition (15)(b); and
 - (b) have these samples analysed in accordance with Conditions (16) to (19) to determine concentrations of contaminants and the values of parameters listed in Table CRC122054D, which forms part of this consent.
- 22 If the results of analysis of samples taken in accordance with Conditions (16) and (19) show that petroleum hydrocarbons or other organic compounds are present, the consent holder shall undertake:
- (a) further analysis of the sample to determine which organic compounds are present; and
 - (b) the measures set out in Condition (23).
- 23 If the results of analysis of groundwater in down-gradient bores carried out in accordance with Condition (21), show that the concentration of any contaminant or the value of any parameter analysed for exceeds the value specified in Table CRC122054D, the consent holder shall immediately:
- (a) notify the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager;
 - (b) notify the occupiers of all adjoining properties to the south and south-east of the soakage basin site; and
 - (c) implement all practicable measures to reduce the concentration of the contaminant in groundwater to below the concentrations listed in Table CRC122054D. Such measures may include:
 - (i) cessation of activities that have caused the excessive concentration;
 - (ii) removal of contaminant source(s);
 - (iii) stabilisation of contaminant source(s); and/or
 - (iv) revision of stormwater management procedures.
- 24 Any material removed in accordance with Condition (23) shall be disposed of at a facility authorised to receive such materials, and the consent holder shall provide the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, with written confirmation of such disposal within 10 working days.
- 25 Following the implementation of any measures undertaken in accordance with Condition (23) or Condition (28), within one month of the measures being implemented a validation sample shall be taken from the same bore from which the previous sample was taken and which recorded the exceedances of trigger levels in Table CRC122054D.

- 26 The validation sample shall be analysed in accordance with Condition (16) to determine the concentration of any contaminants for which the concentrations in Table CRC122054D were exceeded in the previous sample.
- 27 Results of the analysis carried out in accordance with Conditions (25) and (26) shall be reported to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, within two working days of receipt of the results by the consent holder.
- 28 If the results obtained in accordance with Conditions (25) and (26) show the concentrations of contaminants do exceed those specified in Table CRC122054D, then the consent holder shall implement further measures as set out in Condition (23).

REMEDICATION

- 29 The consent holder shall ensure that, after five years from the date of first exercising this consent, disposal of stormwater into the fore-bay and soakage basin ceases.
- 30 The consent holder shall ensure that, after five years and three months from the date of first exercising this consent, either:
- (a) all the clay lining of the diversion channel, fore-bay, and soakage basin soil; or
 - (b) any contaminated diversion channel, fore-bay, and soakage basin soil; is disposed of at a facility authorised to receive such materials.

VALIDATION SOIL SAMPLES

- 31 If the consent holder chooses option (b) in Condition (30) then validation soil sampling is required to be undertaken and shall:
- (a) be carried out by a person who has at least a tertiary science or engineering qualification that required the equivalent of at least one year of full time study and has at least two years environmental investigation professional work experience post-qualification;
 - (b) be carried out in general accordance with Ministry for the Environment (2008) 'Contaminated Land Management Guidelines – Site Investigation and Analysis of Soils (revised 2011)'; and
 - (c) consist of one discrete soil sample collected per 250 square metres of diversion channel, fore-bay, and soakage basin floor.

32

The soil samples collected under Condition (31)(c) shall be analysed:

- (a) by a laboratory accredited for that method by International Accreditation New Zealand or an equivalent accreditation body;
- (b) using the United States Environmental Protection Agency method 1312, Synthetic Precipitation Leaching Procedure (SPLP), using reagent water;
- (c) using detection limits no greater than 20 times less than the trigger levels set out in Table 1 of Condition (33); and
- (d) for the following contaminants:
 - (i) Total aluminium,
 - (ii) Total arsenic,
 - (iii) Total boron,
 - (iv) Total cadmium,
 - (v) Total chromium,
 - (vi) Total copper,
 - (vii) Total lead,
 - (viii) Total manganese,
 - (ix) Total nickel,
 - (x) Total sodium,
 - (xi) Total sulphate,
 - (xii) Total zinc,
 - (xiii) Benzo(a)pyrene, and
 - (xiv) Total petroleum hydrocarbons: C7-C9, C10-C4, and C15-C36.

33

If the concentrations of any of the contaminants in the leachate extract analysed in accordance with Condition (32) exceed the trigger concentrations set out in Table 1 below, then the soils shall be considered to be contaminated.

Table 1

Contaminant	Leachate Trigger Concentration (milligrams per litre)
Total aluminium,	3
Total arsenic,	0.2
Total boron,	2.8
Total cadmium,	0.06
Total chromium,	1
Total copper,	20
Total lead,	0.2
Total manganese,	1
Total nickel,	0.4
Total sodium,	4000
Total sulphate,	5000
Total zinc,	30
Benzo(a)pyrene,	0.014
Total petroleum hydrocarbons –	
C7-C9,	360
C10-C4,	7
C15-C36.	14

- 34 If the sample(s) analysed in accordance with Condition (32) are found to be contaminated under Condition (33) then further sampling of the infiltration basin and/or forebay and/or diversion channel base shall be carried out in general accordance with Ministry for the Environment (2004) 'Contaminated Land Management Guidelines - Site Investigation and Analysis of Soils' and shall determine the lateral and vertical extent of the contamination. Further analysis of the samples taken shall be carried out in accordance with Condition (32).
- 35 Once the lateral and vertical extent of the contamination has been determined, further excavation shall be undertaken to remove all contaminated soils in accordance with Condition (30)(b).

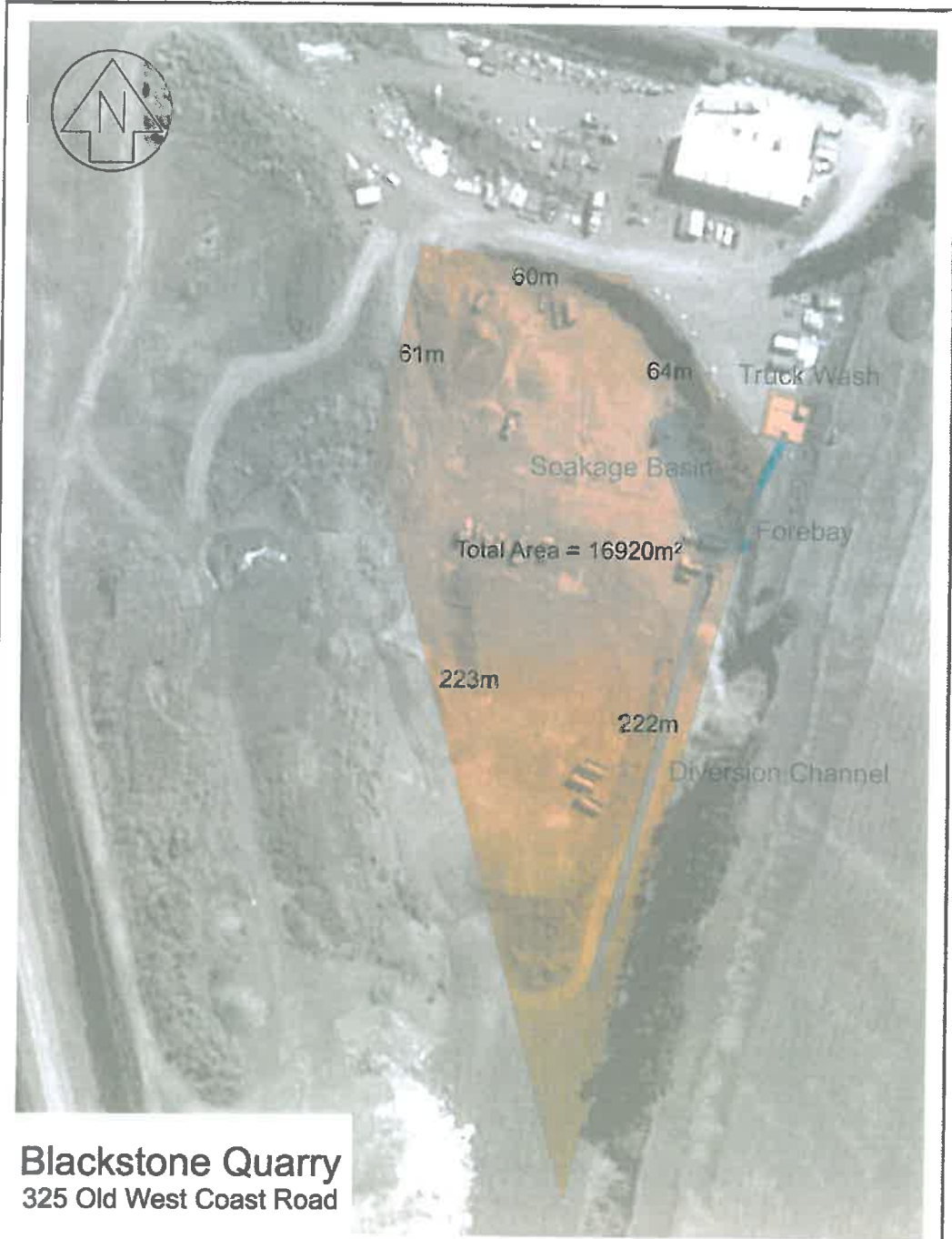
REVIEW

- 36 The Canterbury Regional Council may, once per year, on any of the last five working days of April or October, serve notice of its intention to review the conditions of this consent for the purposes of: (a) dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage; or (b) requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

Issued at Christchurch on 10 April 2013

Canterbury Regional Council

PLAN CRC122054A



Prepared for:
Blackstone Quarries Ltd

**DEMOLITION WASTE
STORAGE FACILITY**

**FOR INFORMATION
NOT FOR CONSTRUCTION**

SITE PLAN CRC[]

Date: 10 May 2012



Plan CRC122054B

PLAN 122054B

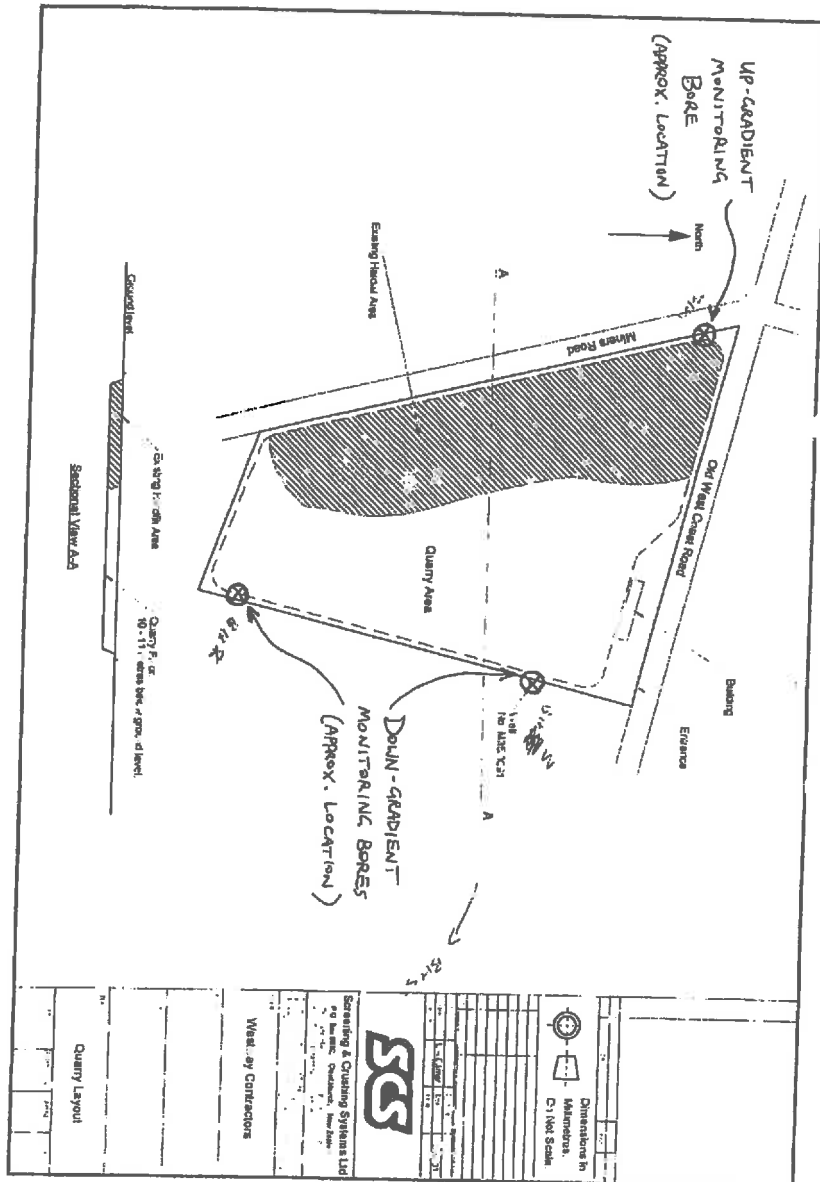


TABLE CRC122054C**Table of contaminant concentrations and the values of parameters**

<u>Contaminant or property</u>	<u>Trigger value</u>
Acidity	12 mg/litre
Alkalinity	80 mg/litre
Ammonia	1.5 mg/litre
Chloride	125 mg/litre
Conductivity	50 mS/metre
Faecal coliform bacteria	1 per 100 millilitres
Hardness(= Calcium + Magnesium) (= Calcium + Magnesium)	100 mg/litre
Iron (soluble)	0.1 mg/litre
pH	<7 or > 8.5
Zinc	1.5 mg/litre
Total petroleum hydrocarbons	
C7-C9,	18
C10-C14,	0.35
C15-C36.	0.70

TABLE CRC122054D

Table of contaminant concentrations and the values of parameters

<u>Contaminant</u>	<u>Concentration</u>
Aluminium	0.15 mg/litre
Arsenic	0.01mg/litre
Boron	0.14 mg/litre
Cadmium	0.003 mg/litre
Chromium	0.05 mg/litre
Copper	1.0 mg/litre
Lead	0.01 mg/litre
Manganese	0.05 mg/litre
Nickel	0.02 mg/litre
Nitrate-Nitrogen	50 mg/litre
Sodium	200 mg/litre
Sulphate	250 mg/litre