

INFORMATION REGARDING ENVIRONMENTAL AUDIT REPORTS

August 2007

VICTORIA'S AUDIT SYSTEM

An environmental audit system has operated in Victoria since 1989. The *Environment Protection Act 1970* (the Act) provides for the appointment by the Environment Protection Authority (EPA Victoria) of environmental auditors and the conduct of independent, high quality and rigorous environmental audits.

An environmental audit is an assessment of the condition of the environment, or the nature and extent of harm (or risk of harm) posed by an industrial process or activity, waste, substance or noise. Environmental audit reports are prepared by EPA-appointed environmental auditors who are highly qualified and skilled individuals.

Under the Act, the function of an environmental auditor is to conduct environmental audits and prepare environmental audit reports. Where an environmental audit is conducted to determine the condition of a site or its suitability for certain uses, an environmental auditor may issue either a certificate or statement of environmental audit.

A certificate indicates that the auditor is of the opinion that the site is suitable for any beneficial use defined in the Act, whilst a statement indicates that there is some restriction on the use of the site.

Any individual or organisation may engage appointed environmental auditors, who generally operate within the environmental consulting sector, to undertake environmental audits. The EPA administers the environmental audit system and ensures its ongoing integrity by assessing auditor applications and ensuring audits are independent and conducted with regard to guidelines issued by EPA.

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Report executive summaries, findings and recommendations should be read and relied upon only in the context of the document as a whole, including any appendices and, where applicable, any certificate or statement of environmental audit.

AUDIT REPORT CURRENCY

Audit reports are based on the conditions encountered and information reviewed at the time of preparation and do not represent any changes that may have occurred since the date of completion. As it is not possible for an audit to present all data that could be of interest to all readers, consideration should be made to any appendices or referenced documentation for further information.

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ENVIRONMENTAL AUDIT REPORT
33 JACK ROAD
CHELTENHAM, VICTORIA, 3192

Prepared for:
Jack Road Investments Pty Ltd
Door 14 North Drive, 236-262 East Boundary Road,
East Bentleigh VIC 3165
Report Date: 2 October 2014
Project Ref: J8427 – R02

Written/Submitted by:



Peter Mirkov
Environmental Auditor
(Appointed Pursuant to the *Environment Protection Act 1970*)

Record of Distribution

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Appendix C: Certificate of Title and Property Report (provided on attached CD)

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Appendix H: Coffey Environments Australia Pty Ltd, On-site Health Risk Assessment, 33 Jack Road, Cheltenham, Victoria, 24 September 2014 (provided in attached CD).

Abbreviations

ACM	Asbestos Containing Material
ANZECC	Australian and New Zealand Environment and Conservation Council
AS	Australian Standard
C6-C36	Hydrocarbon chain length fraction
BaP	Benzo(a)pyrene
Bgs	Below ground surface
BTEX	Benzene, Toluene, Ethyl benzene and Xylenes
COC	Chain of Custody
CUTEP	Clean Up to Extent Practicable
1,1 DCE	1,1-dichloroethene
1,1 DCA	1,1-dichloroethane
1,2 DCE	1,2-dichloroethene
EIL	Ecological Investigation Level
EPA Victoria	Victorian Environment Protection Authority
ESA	Environmental Site Assessment
Groundwater SEPP	State Environment Protection Policy (Groundwaters of Victoria)
HIL	Health Investigation Level
HSL	Health Screening Level
IWRG	Industrial Waste Resource Guidelines
Land SEPP	State Environment Protection Policy (Prevention and Management of Contamination of Land)
LOR	Limit of Reporting
LRM	LRM Global Pty Ltd
µg/L	micrograms per litre
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
MW/SW	Monitoring Well
NATA	National Association of Testing Authorities
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
OCP	Organochlorine Pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethene
Peraco	Peraco Environmental Services Pty Ltd
PID	Photoionisation Detector
QA	Quality Assurance
QC	Quality Control
RL	Reduced Level
RPD	Relative Percent Difference
SEPP	State Environment Protection Policy (Waters of Victoria)
TCE	Trichloroethylene
TDS	Total Dissolved Solids
TRH	Total Recoverable Hydrocarbon
1,1,1 TCA	1,1,1-trichloroethane
VCH	Volatile Chlorinated Hydrocarbon
VOC	Volatile Organic Compound

Executive Summary

Executive Table 1 Summary of Audit Information

Auditor	Peter Mirkov
Auditor account number	75577
Auditor appointment end date	16 March 2016
Auditor's appointment category	Contaminated Land
Audit Type	53X
Date EPA notified of audit	27th August 2013 (Revision to original notification was sent on 28 May 2014 in which the site boundary was amended)
Audit service order number	0008004128 (CARMS #72448-1)
Name of person requesting audit	Mr Peter Gillon Gillon Group ABN 46 841 054 622 Phone number: (03) 9563 8120
Relationship of person requesting audit to site	Gillon Group is the representative for the site owner.
Name of premises owner	Jack Road Investments Pty Ltd No ABN/ACN or contact details provided for the site owners at this time. Contact details can be requested through Gillon Group where required.
Date of auditor engagement	23 / 08 / 2013
Completion date of the audit	02 / 10 / 2014
Reason for Audit	Environmental Audit Overlay
Audit Categorisation	Risk
Environmental Segments	Air, Land, Groundwater, Surface water
If the audit was required by an EPA notice, licence or other, please provide EPA reference number	N/A
Current land use zoning	Mixed Use Zone (MUZ) and Commercial 1 Zone (C1Z)
EPA Region	Southern Metro
Municipality	Bayside City Council
Dominant Lot on title plan	Lot 1 on Proposed Plan of Subdivision PS713815C
Additional Lot on title plan(s)	Lot 2 on Plan of Subdivision 138747 (Volume 09479 Folio 505)
Site/Premises name	N/A
Building/complex sub-unit/lot No.	N/A
Street/Lot – Lower No.	N/A
Street/Lot – Upper No.	33
Street Name	Jack
Street type (road, court, etc)	Road
Street suffix (North, South etc)	N/A
Suburb	Cheltenham
Postcode	3192
GIS Coordinate of Site centroid	GDA94 – Latitude/Longitude in decimal degrees
Latitude (GDA94)	-37.960983
Longitude (GDA94)	145.041134
Site area (in square metres)	27,045 m^2
Plan of site/premises showing the audit site boundary attached	Yes

Plan of site/premises showing the audit site boundary attached in a spatial data format	Yes
Members and categories of support team utilised	Ms Karen Teague (human toxicology and human health and ecological risk assessment relating to contamination), Mr Michael Blackam (hydrogeology).
Further works or requirements	Perched groundwater (0.5-2mbgs) at the site is polluted with TCE, PCE and TRH such that it presents a direct contact and/or vapour inhalation risk to future residents, maintenance workers and construction workers of the site. Development of the site should only proceed subject to the satisfactory design and installation of a vapour mitigation system and a warning layer to extend over areas of the site where perched water is present (as specified in Figure 1C attached to the Statement of Environmental Audit (Appendix A)). Development of a Contaminant Management Plan to manage exposure to perched water must also be completed. The presence of B(a)P TEQ in soil at the site may pose an unacceptable dermal contact risk to residents. A statement condition has been included requiring a minimum of 0.5mbgs of fill material to be present in all accessible soil areas. Development of the site should be conducted in accordance with the layout specified in the development plans attached to the Statement of Environmental Audit (Figure 1A, Appendix A and Figure 1B, Appendix B).
Nature and extent of continuing risk	Groundwater at the site is polluted. Groundwater must not be extracted and used for the following beneficial uses: Potable Water Supply Agriculture, Parks and Gardens Primary Contact Recreation Stock Watering and Industrial without prior testing and review of results by an environmental auditor (appointed under part IXD of the *Environment Protection Act 1970*) to confirm its suitability for that use. It may be extracted for the purpose of environmental monitoring or remediation. The Auditor has recommended that the site be a designated Groundwater Quality Restricted Use Zone (GQRUZ) (as per the EPA GQRUZ Map attached to the Statement of Environmental Audit in Appendix A of this report). Soil at the site is contaminated with BaP TEQ such that it presence a direct contact risk to future residential of the site. Perched groundwater (0.5-2mbgs) at the site is polluted with TCE, PCE and TRH such that it presents a direct contact and/or vapour inhalation risk to future residents, maintenance workers and

	construction workers of the site. Deep aquifer groundwater (7-10mbgs) at the site is polluted with 1,1 DCA, 1,1 DCE, 1,2 DCA, Vinyl chloride and TCE such that it should not be extracted for any beneficial use on-site.
Outcome of the audit	Statement of Environmental Audit
Has EPA determined CUTEP at this site?	No
Has the Auditor determined CUTEP at this site?	Yes
Has a GQRUZ been identified at the site/beyond the site by EPA?	Yes Site is identified as a GQRUZ
Does NAPL remain at the site?	No

Please indicate which of the Protected Beneficial Uses of groundwater are precluded due to pollution	e.g. including site-sourced and regional pollution.

Protected Use	Precluded?
Maintenance of Ecosystems	**Yes**
Potable Water Supply (Desirable)	**Yes**
Potable Water Supply (Acceptable)	**Yes**
Potable Mineral Water Supply	**N/A**
Agriculture, Parks and Gardens	**Yes**
Stock Watering	**Yes**
Primary Contact Recreation	**Yes**
Industrial water use	**Yes**
Buildings and Structures	**No**

Historical land use	From the early 1900s to the 1950s, the site was used as market gardens. Between the 1950s to the late 1990s, the site was predominantly used for carpet manufacturing. Since then it has been used for furniture showrooms, office space, cabinet and furniture making, powder coating, car storage and an insulation distributor. Operations ceased at the site in approximately August/September 2013 and the buildings were demolished in early 2014.
Current land use	Vacant
Proposed future land use	Medium to high density residential and recreational/open space. The site is being developed as one residential development with the site immediately to the south.
Surrounding land use – north	Commercial/industrial
Surrounding land use – south	Vacant, proposed to be developed for medium to high density residential with the subject site.
Surrounding land use – east	Low density residential
Surrounding land use – west	Commercial/industrial
Proposed land use zoning	No change proposed to zoning
Nearest surface water receptor – name	Port Phillip Bay
Nearest surface water receptor – distance (m)	2.7km

Nearest surface water receptor – direction	West
Likely point of groundwater discharge	Port Phillip Bay
Site aquifer formation	Brighton Group (deeper aquifer)
Groundwater flow direction	South/south-west
Groundwater TDS range (mg/L)	220 – 4,100
Groundwater Segment	A1
Are there multiple aquifers impacted by pollution at the site	Yes
Perched groundwater depth – upper (metres below ground level (mbgl))	0.47
Perched groundwater depth – lower (mbgl)	1.71
Regional groundwater depth – upper (mbgl)	7.02
Regional groundwater depth – lower (mbgl)	9.88
Number of bores within 2 km	321
Closest extractive use (distance in m)	Irrigation (300m north-west)
Zone of groundwater plume influence (m from site boundary)	Approximately 50m from east, 120m from west and 2m from southern site boundaries. Unable to be determined at the northern boundary due to identified co-sources of groundwater pollution present upgradient of the site.
Year groundwater last monitored	2014
Have you attached electronic copies of Current Groundwater Analytical Results presented as a summary table?	Yes. Provided as Tables J and K.

1 Introduction

This Environmental Audit Report has been prepared by Mr Peter Mirkov of Peraco Environmental Services Pty Ltd (Peraco) for the parcel of land defined as 33 Jack Road, Cheltenham, Victoria, 3192 (the site). Mr Mirkov is an Environmental Auditor (appointed pursuant to the Environment Protection Act 1970) – Contaminated Land. He was initially appointed as an Environmental Auditor in January 1997 under the Victorian Environment Protection Act 1970 and is currently appointed until 16 March 2016.

The Victorian Environment Protection Authority (EPA Victoria) was formally advised of the intended Audit on the 27th August 2013. The Audit was requested by Mr Joshua Dawson of Gillon Group on 23rd August 2013. Gillon Group are the authorised representative of Jack Road Investments Pty Ltd, the current site owners. A revised notification was forwarded to EPA Victoria on 28 May 2014, to notify of a minor amendment to the area of the site under audit.

LRM Global Pty Ltd (LRM) conducted the environmental assessment work for the site during the course of the Audit. Works conducted by Alliance Environmental Engineering and Consulting Pty Ltd (Alliance) prior to the commencement of the audit were also used to supplement LRM's assessment works.

As required under the Environment Protection Act, an Environmental Audit Report shall include the following:

a) An evaluation of the environmental quality of the relevant segment of the environment (as per S53X (d) (i));

b) An assessment of whether the condition of the site is detrimental or potentially detrimental to the beneficial uses of the site or any other segment of the environment;

c) An assessment whether any clean-up is required to that segment of the environment (as per S53X (d) (ii)); and

d) If any clean-up is necessary, any recommendations relating to the carrying out of the clean-up (as per S53X (d) (iii)).

When evaluating the above, the Auditor must have regard to the following:

- Any relevant State Environment Protection Policy or Industrial Waste Management Policy;
- Any guidelines issued by the EPA for the purposes of the Act; and
- The National Environmental Protection Measure.

Depending on the outcome of the Environmental Audit process, the Auditor is then required to issue a Certificate of Environmental Audit (S53Y of the Act), or if it is believed that the site is detrimental or potentially detrimental to one or more beneficial uses of the site, issue a Statement of Environmental Audit (S53Z of the Act) indicating the beneficial uses that the site is suitable for pending future clean-up to achieve a certificate.

1.1 Purpose of Environmental Audit

The Environmental Audit was required given the site is covered by an Environmental Audit Overlay. A copy of the certificate of title and proposed plan of subdivision is provided in Appendix B of this report.

1.2 Audit Area

The Audit Area occupies an approximate total surface area of 27,045m^2 and comprises all of the property referred to as 33 Jack Road, Victoria 3192. The site is defined as Lot 1 on proposed Plan of Subdivision PS713815C and Lot 2 on Plan of Subdivision 138747 (Volume 09479 Folio 505). The site locality is shown on Figure 1 and the Audit area is depicted on Figure 2. A copy of the current certificate of title, proposed plan of subdivision and property report is presented in Appendix B of this report.

At the commencement of the Audit, the site was occupied by a double storey brick building and two single storey buildings (most recently used for a combination of office, showroom and factory space), two electrical substations, asphalt car parking areas and a grassed area in the south-western corner of the site.

At the completion of the Audit, the site was vacant and all buildings (with the exception of one electrical substation in the north-west of the site), associated infrastructure and surface concrete had been demolished and removed from site.

The electrical substation in the north west of the site is presented on Figures 1A and 1B (attached to the each of the Statements of Environmental Audit) provided in Appendices A and B)

The substation currently services over 60 residents within the Cheltenham area and as such it could not be disconnected and demolished as part of the Audit process. Following completion of the Audit (and generation of a planning permit for the site which will detail a new location for the substation and possibly new conduits to supply the substation) it is understood that the substation will be relocated to a new location at the site, yet to be determined by council. As such, two Statements of Environmental Audits (SoEA) have been issued for the site (as provided in Appendix A). One SoEA was issued for the substation and one was issued for the remainder of the site area.

The Auditor understands that following relocation of the substation, soil in the area currently occupied by the substation will be assessed and an addendum to that Statement of Environmental Audit will be issued for the substation.

1.3 Proposed Site Development

It is understood that the site owner, Jack Road Investments Pty Ltd, intend to redevelop the site for medium to high density residential use with recreational/open space areas. It is noted that the site is being developed as one residential development with the site to the south (9-41 Charlton Ave, Cheltenham). 9-41 Charlton Ave, Cheltenham was subject to an Environmental Audit from July 2011 to September 2013, with a Statement of Environmental Audit being issued on 3 September 2013.

A copy of the proposed development plans depicting the site layout is provided as Appendix C of this report.

2 Background

2.1 Site Details

A summary of the site details is provided in the Executive Summary.

2.2 Information Referenced by the Auditor

2.2.1 Legislation

In preparing this report the following legislation has been considered:

- *Environment Protection Act* 1970;
- *Environment Protection (Industrial Waste Resource) Regulations* 2009;
- *State Environment Protection Policy (Prevention and Management of Contamination of Land)*, June 2002. ("the Land SEPP") (*Variation No. G39 Gazette, 26 September 2013);*
- *State Environment Protection Policy (Groundwaters of Victoria)*, December 1997. ("the Groundwater SEPP");
- *State Environment Protection Policy (Waters of Victoria),* June 2003. ("SEPP WoV");

2.2.2 Guidelines, Standards and Codes of Practice

In preparing this report the following guidelines, standards and codes of practice have been considered:

- *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1)*, April 2013 ("the NEPM").

- EPA Victoria (2007) *Environmental Auditor (Contaminated Land). Guidelines for Issue of Certificates and Statements of Environmental Audit*, EPA Publication 759.1. Please note that the Audit was commenced under Publication 759.1, however in February 2014, EPA Publication 759.2 was released and referenced subsequent to its release.
- Industrial Waste Resource Guidelines (IWRG) 701 – *Sampling and Analysis of Waters, Waste Waters, Soils and Wastes*, EPA Victoria June 2009.
- Industrial Waste Resource Guidelines (IWRG) 621 – *Solid Hazard Categorisation and Management*, EPA Victoria June 2009.
- Australian Standard AS 4482.1-2005 *Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil. Part 1: Non-volatile and Semi-volatile Compounds*, Standards Australia 2005.
- Australian Standard AS 4482.2-1999 *Guide to the Sampling and Investigation of Potentially Contaminated Soil. Part 2: Volatile Substances*, Standards Australia 1999.
- *Management of asbestos in the non-occupational environment*, Department of Health and Ageing and enHealth Council 2005.
- Australian Standard AS 2159-2009 *Piling – Design and Installation*, Standards Australia 2009.
- EPA (2006) *Hydrogeological Assessment (Groundwater Quality Guidelines)*, EPA Publication 668, September 2006.
- The Clean-Up and Management of Polluted Groundwater (Publication 840.1, February 2014) EPA Victoria, February 2014.

2.2.3 Assessment Consultant Reports

In conducting this Environmental Audit pursuant to s53W of the Environment Protection Act 1970, the Environmental Auditor reviewed the reports and documents listed below:

- **LRM Global Pty Ltd, (18 June 2014),** Works Summary Letter Report, 33 Jack Road Cheltenham
- **LRM Global Pty Ltd, (September 2014),** Audit Environmental Site Assessment, 33 Jack Road Cheltenham.

The LRM (September 2014) Audit ESA report is provided in Appendix D of this report. All information contained within the LRM (June 2014) Works Summary Letter Report is provided within the LRM (September 2014) ESA report therefore a copy of the Works Summary Letter Report has not been provided.

Prior to the commencement of the Audit, Alliance completed Phase 1 and Phase 2 assessment works for the site. The Auditor reviewed the Alliance reports/works completed and considered the Alliance findings/results as part of the Audit. The Alliance reports/works reviewed by the Auditor are as follows:

- **Alliance Environmental Engineering and Consulting Pty Ltd (February 2012)**, Phase 1 Environmental Site Assessment, 33 Jack Road Cheltenham, VIC.
- **Alliance Environmental Engineering and Consulting Pty Ltd (May 2012)**, Re: Summary of Environmental Site Assessment Works, 33 Jack Road Cheltenham, Victoria.
- **Alliance Environmental Engineering and Consulting Pty Ltd (April 2012)**, Borelogs and tabulated soil results for locations B01 to B49 (inclusive of wells MW1 to MW9 and MW9A) and tabulated groundwater results for the sampling of groundwater monitoring wells MW1 to MW9 and MW9A in April 2014.

It is noted that as these works were undertaken prior to the commencement of the audit, the Auditor was not involved in the scoping of the works and was not able to observe the field works conducted.

The Alliance (February, May and April 2012) documents are provided in Appendix B of the LRM (September 2014) Audit ESA report.

The Auditor is also aware of the following previous environmental site investigation works that were undertaken at the site prior to the commencement of the Audit:

- **Golder Associates Pty Ltd (August 1994),** Preliminary Site Contamination Assessment, Former Homfray Highcraft Carpet Factory Site, 33-35 Jack Road, Cheltenham;
- **Golder Associates Pty Ltd (August 1997),** Groundwater Assessment, 33-35 Jack Road, Cheltenham;
- **Amcosh Occupational Health Services (August 1997),** Asbestos Audit of Ramler Furniture, 33-35 Jack Road, Cheltenham; and
- **Golder Associates Pty Ltd (March 2001),** Contamination Status Review: 33-35 Jack Road, Cheltenham, prepared for Ramler Furniture Pty Ltd, March 2001; and

The reports listed above were reviewed by the Auditor for completeness and are included in Appendix B of the LRM (August 2014) Audit ESA report.

Additionally, the following work was undertaken by the Auditor's expert support team in September 2014:

- **Coffey Environments Pty Ltd (September 2014)**, On-site Health Risk Assessment, 33 Jack Road, Cheltenham, Victoria.
- **Coffey Environments Pty Ltd (September 2014)**, Assessment of the Natural Attenuation of Chlorinated Hydrocarbons at 33 Jack Road, Cheltenham.
- **Coffey Environments Pty Ltd (September 2014)**, Supporting letter commenting on the Assessment of the Natural Attenuation of Chlorinated Hydrocarbons at 33 Jack Road, Cheltenham

Copies of the above Coffey Environments documents report are provided in Appendices G and H of this report.

2.3 Activities conducted by the Auditor

In conducting this Environmental Audit pursuant to s53W of *the Environment Protection Act* 1970, the Auditor undertook the following activities:

- Met with the client representative (Mr Joshua Dawson) and LRM to brief the client on the purpose of the Audit and proposed works.
- Reviewed the Phase I Environmental Site Assessment Report, dated February 2012, prepared by Alliance. It is noted that works completed as part of this initial phase of works comprised a review of site history information and potential on-site sources of contamination.
- Reviewed the borelogs and tabulated soil and groundwater results, dated April 2012, prepared by Alliance.
- Reviewed and commented on LRM's proposed Sampling and Analysis Plans for test pitting, groundwater well installation and sampling, and soil vapour bore installation and sampling works.
- Reviewed site assessment data collected by LRM including soil, groundwater and soil vapour results.
- Conducted numerous site visits to observe field work being conducted at the time and attended several meetings with the client and LRM to discuss progress of the Audit.
- Reviewed environmental audit reports for neighbouring sites, specifically those for Lot A on PS444799U, Part of 9-41 Charlton Ave, Cheltenham and 18-22 Hamlet Street, Cheltenham.
- Conducted a presentation to the EPA on 21 July 2014 in regards to the works completed to date and to seek advice from the EPA in regards to the CUTEP approach for the site.
- Reviewed and commented on the Audit ESA report (August 2014) prepared by LRM (ensuring that all matters covered in earlier review comments were being addressed).
- Prepared an Auditor determined Clean Up to the Extent Practicable (CUTEP) report.

- Formed an opinion on the condition of the site, and the nature and extent of any harm or detriment, or the risk of any possible harm or detriment, to beneficial uses of the land and groundwater caused by the site conditions.
- Completed this Environmental Audit Report.

2.4 Geology & Hydrogeology

2.4.1 Topography

The surface at the site varies from approximately 36 mAHD to 38 mAHD with a slight decline from east to west and from south to north.

2.4.2 Regional Geology

The 1:63,360 Geological Survery of Victoria Ringwood map sheet (No.849) indicates that the site is underlain by Quaternary age sand dune deposits and swamp deposits comprising sands, silts and clays. The sediments are deposited in north-west/south-east aligned bands with the sand dune deposits forming topographic highs and swamp deposits forming topographic lows. The Quaternary sand deposits are generally up to 3m thick and contain groundwater, forming the shallow perched aquifer beneath the site. This shallow aquifer is perched on the underlying geology of the Brighton Group and is ephemeral with water levels fluctuating significantly over the year as they are largely dependent on rainfall recharge. Groundwater is expected at a depth of approximately 0.5 to 2m below ground level.

Beneath the Quaternary age sands are the Tertiary age Brighton Group Sands comprising sand, clayey sand, sandy clay and minor gravel. The Brighton Group sands are approximately 30m thick in the vicinity of the site and form the underlying Brighton Group Aquifer, where groundwater is expected at a depth of approximately 10m below ground level. The aquifer is fine grained and of low to moderate permeability with higher permeability layers of coarse sand and fine gravel.

2.5.2 Site Specific Geology

The site specific geology encountered by Alliance (2012) and LRM (2014) during fieldwork comprised of fill material overlying natural sand, sandy clay and clayey sand to the maximum depth of investigation of approximately 12 mbgs, as summarised in Table 2.1 below.

Table 2.1 Generalised Stratigraphy

Depth interval (mbgs)	Soil lithology
0.0 – 1.0	**FILL:** Comprising fine to coarse grained sand and gravel, poorly sorted silt, gravel, sand and clay with crushed rock at some locations, generally extending to a depth of approximately 1.0m. The fill material was present at greater thickness at locations in the south eastern portion of the site and was encountered at depths up to 1.4m.
0.5 – 1.5	**SAND:** Fine grained, uniform, grey to brown, moist, dense, containing some fine to medium grained rounded gravels (inferred ironstone). At most locations, this sand extended from below the fill material to a maximum depth of 2.4m. At a number of locations, sand was not encountered, with fill material overlying natural sandy clay.
1.0 – 11.0	**SANDY CLAY/SILTY CLAY:** Low plasticity, medium grained sand, mottled red/grey/orange, moist, stiff, sand content decreasing with depth.
8.0 – 12.0	**CLAYEY SAND:** Fine to coarse grained, poorly graded, medium plasticity clay, mottled grey/brown.orange, some medium grained rounded gravel (inferred ironstone).

Additionally, the Auditor requested that Particle Size Distribution, Hydrometer, Atterberg and Porosity testing be undertaken during the installation of soil bore SVB01 (adjacent to well MW13) to confirm the geological conditions logged by Alliance and LRM. These tests were performed on samples from 1-2m, 2-3m and 4-5mbgs. The testing indicated the following materials, generally confirming the geological conditions reported above:

- 1.0-2.0mbgs: SAND (SM) – medium to fine grained, well graded, with a little Silt, non-plastic fines, 28.6% porosity;
- 2.0-3.0m: Silty CLAY (CL) – with some fine to medium grained sand, high plasticity, moisture content above plastic limit, 51.6% porosity; and
- 4.0-5.0mbgs: SAND (SM) – fine to medium grained, well graded, with some Silt, low plasticity index fines, 28.5% porosity.

Results of the Particle Size Distribution, Hydrometer, Atterberg and Porosity testing are also summarised within Section 3.2.3 and presented Appendix E of the Coffey Environments (September 2014) HRA report (Appendix F of this report). Geological conditions noted on-site were reported to be generally consistent with observations on nearby audit sites.

Based on the Auditor's review of the borelogs, the Auditor's inspection of the site and the fieldworks, the Auditor agrees with Alliance's and LRM's findings and assessment of the geological conditions observed on-site.

Soil bore logs are presented in Appendix D of the LRM (September 2014) Audit ESA report. The geology of the site is presented on Figures 4, 5, 6 and 15.

2.5.2 Regional Hydrogeology

The site is located in the East Port Phillip Bay groundwater catchment and groundwater beneath the site may be encountered in the shallow Quaternary sand sediments aquifer or the deeper Brighton Group aquifer.

Groundwater quality in the shallow aquifer is highly variable and dependent on the rate of local recharge, and total dissolved solids (TDS) is expected to be in the range 100 mg/L to 3,000 mg/L.

Based on the *Victorian Groundwater Beneficial Use Map of South Western Victoria Water Table Aquifers*, LRM determined that groundwater beneath the site was likely to be classified as Segment A1 (TDS up to 500 mg/L) as defined by the State Environmental Protection Policy (SEPP) *Groundwaters of Victoria*.

The closest natural surface water body to the site is Port Phillip Bay located approximately 2.7km west of the site. Groundwater flow is considered likely to flow west or south west towards Port Phillip Bay.

A review of Visualising Victoria's Groundwater database (http://vvg.org.au/) undertaken by LRM in August 2014 identified 321 registered groundwater wells within 2 km of the site. Where stated, the use of these groundwater wells included investigation and monitoring, irrigation, domestic and domestic and stock purposes. Information for all wells within 2km of the site is provided within Appendix B of the LRM (September 2014) ESA report. 83 registered groundwater wells were identified within 500 m of the site. Table C (appended) sumamrises the use of these bores. Information for eight of the closest bores including the nearest extraction bores was summarised in Section 3.6 and Table 2 of the LRM (September 2014) ESA report. Six of these bores were registered for observation or investigation use with total depths between 10 and 15m and screened lithology being sand. The closest registered bores were located immediately north and immediately south of the site at the neighbouring properties (both registered as observation bores). The two closest extraction bores were irrigation bores located 300m north west (cross gradient) of the site and 400m south (down gradient) of the site and were drilled to depths of 40m and 36m respectively. The nearest registered bore listed as unknown/miscellaneous use is located approximately 400m south-west of the site (at a golf course site).

2.5.2 Local Hydrogeology

Groundwater monitoring wells were installed to investigate both the perched Quaternary aquifer (the 'perched aquifer') and the Brighton Group aquifer (the 'deep aquifer') as part of the Audit. Further information pertaining to the hydrogeology within the perched and deep aquifer is provided below.

Perched Quaternary Aquifer

At the time of the LRM works the perched aquifer was observed to extend across the north and north-eastern portion of the site. A total of 17 wells were installed in the perched aquifer at the site. This includes MW9AR which was a replacement well for MW9A (installed approximately 0.5m from MW9A) after it was destroyed during tank excavation works. Five of these wells; SW4 in the north-east corner, SW3 in the north, and SW11, SW12 and SW14 in the centre of the site, have consistently been dry. Other wells, such as SW7 and SW9 in the south of the site were reported to be dry in July 2014 but not in August 2014.

At the time of the Alliance site investigations evidence of perched water was noted within the north-central and south-west of the site.

Groundwater within this aquifer is considered localised, ephemeral and discontinuous and as such is not considered to represent a significant groundwater source for extractive use.

Standing water levels in the perched aquifer, as measured during the most recent GME in August 2014, ranged between 0.52 m below ground level (mbgl) at SW13 and 1.71mbgl at SW10.

Laboratory TDS concentrations in the range 200 – 3,300mg/L were reported. Reported TDS is consistent with the reported range of perched water within the region.

Where shallow groundwater was encountered across the site, the flow direction appeared generally to be in a southerly direction. Some mounding was observed at MW9AR, however this was considered to be associated with artificial recharge within the backfill material at the former tank pit. A cement / bentonite 2.5 - 3.0m deep cut-off wall along the western portion of the southern boundary (installed in 2000 at the adjoining site to the south) is also considered to potentially influence groundwater flow direction when perched groundwater is present in this area.

Details of groundwater monitoring wells installed in the perched aquifer, including groundwater levels, are presented in Table B1 (attached). The interpreted groundwater elevation contours and groundwater flow direction for the two full gauging events completed at the site are displayed on Figures 9 and 10.

It is noted that the groundwater SWL was above or at the screened interval in wells MW9A, MW9AR, SW1, SW6, SW8 and SW15. Given that the main contaminant of potential concern at the site was volatile chlorinated hydrocarbons, this was not considered to be of concern. The exception was elevated concentrations of TRH >C_{10} in wells SW8 and SW15 (refer to Section 6.7 below) were not indicative of the presence of light non-aqueous phase liquid (LNAPL; refer to Wright, 2013), this was not considered to be of concern.

Deep Brighton Group Aquifer

A total of 24 wells have been installed in the deeper aquifer on-site. Standing water levels measured in August 2014 ranged from 7.42mbgs (MW21) to 9.84mbgs (MW4).

Laboratory TDS concentrations in the range 220 – 4,100mg/L were reported. Although consistent with the regional range, examination of the lateral distribution of field EC results indicates a zone where fresher water may be recharging the deeper aquifer, running from the northern boundary (MW21) to the southern boundary (MW24), which corresponds with the location of the main north-south sewer and stormwater lines previously present on the eastern side of the site. It is possible that when the sewer and stormwater lines were removed in February 2014, the excavation may have penetrated the low permeability clay layer between the perched and the deep aquifer in this area, and is providing a preferential vertical pathway for shallow water to recharge the deep aquifer.

The inferred groundwater flow direction in the deep aquifer is to the south/south-west, with some mounding identified in the vicinity of MW21 on the northern site boundary.

Details of groundwater monitoring wells installed in the deep aquifer, including groundwater levels, are presented in Table B2 (attached). The interpreted groundwater elevation contours and groundwater flow direction for the two full gauging events completed at the site are displayed on Figures 11 and 12.

Groundwater standing water levels were observed to be within the screened interval of all wells in all gauging rounds.

Summary of Local Hydrogeology

A summary of the site specific hydrogeology is provided in Table 2.2. The conceptual site model is presented on Figure 6.

Table 2.2: Site Specific Hydrogeology

Item	Description
Groundwater Gradient	The hydraulic gradient in the perched aquifer between MW9AR and SW9 is 0.0065 (using groundwater levels recorded in July and August 2014). The hydraulic gradient in the deep aquifer between MW12 and MW3 is 0.0057 (using groundwater levels recorded in May, July and August 2014).
Hydraulic Conductivity	The hydraulic conductivity of the aquifer is reported to be moderate to low (a representative value of 0.4m/day is given by Leonard, 1992). Hydraulic conductivity testing (rising head tests) was undertaken on three shallow aquifer wells and three deeper aquifer wells. The test data were analysed by Coffey via two solutions appropriate for an unconfined aquifer: Hvorslev (1951) and Bouwer and Rice (1976). Average hydraulic conductivity of the perched aquifer was reported to be 0.45 – 0.7 m/day, and average hydraulic conductivity of the deep aquifer was reported to be 0.43 – 0.65 m/day. The estimates for hydraulic conductivity are considered reasonable based on both the lithology and the reported range typically associated with the regional Brighton Group aquifer
Porosity	Porosity of the perched aquifer was assumed to be 26% based on the analysis of sample SVB01 (1.0 – 2.0m). Porosity of the deep aquifer was assumed to be 28% based on the analysis of deepest sample from SVB01 (4.0 – 5.0m)
Seepage Velocity	The estimated seepage velocity in the perched aquifer (based on the hydraulic gradient on 0.0065 and assumed porosity of 26%) is estimated to range from 4 m/year to 7 m/year. The estimated seepage velocity in the deep aquifer (based on the hydraulic gradient on 0.0.0057 and assumed porosity of 28%) is estimated to range from 3 m/year to 5 m/year.

3 Potential Contaminant Sources, Potential Contaminants of Concern & Receptors

This section of the Audit Report summarises the potential contaminant sources, transport pathways and receptors that were considered as part of the Audit. The Conceptual Site Model is shown on Figure 6.

3.1 Scope of Site History Assessment

The site history investigation conducted by Alliance (February 2012) included the review of the following sources of site history information:

- Documentation relating to site ownership including historical and current certificates of title;
- Royal Historical Society of Victoria;
- Sands and McDougall Directories;
- Council zoning and planning information;
- Historical aerial photographs;
- Metropolitan Melbourne Board of Works plans;
- EnergySafe Victoria Cathodic Protection Systems Database;
- WorkSafe Victoria Goods Databse;
- EPA Victoria database; and
- Audits completed for sites in the vicinity of the site.

Alliance also completed a site walkover on 31st January 2012 to assist in their understanding of the site's history.

LRM reviewed and re-visited the site history conducted by Alliance during their assessment works. Additional site history information gathered by LRM presented in their Audit ESA report (September 2014) included:

- A search of the EPA Priority Sites Register
- A review of the list of Treatment and Disposal Facilities for Prescribed Wastes; and
- An updated search of surrounding Environmental Audits completed within the vicinity of the site..

LRM also conducted multiple site inspections, the first being on 26 July 2013 (prior to the commencement of the audit).

The Auditor has reviewed the completeness of the site history review undertaken by Alliance and LRM (refer to Section 5.5 below and Table F) and has concluded that site history investigation undertaken is adequate to identify the contaminants of potential concern for the site. The site history review is detailed in the Alliance (February 2012) Phase 1 ESA report and Sections 4 to 6 of the LRM (August 2014) Audit ESA report (provided as Appendix C of this report).

3.2 Summary of Site History

The site history investigation undertaken by Alliance and supplemented by information obtained by LRM indicated that the site was used for a variety of uses including market gardening, carpet manufacturing and light commercial/industrial activities since the early 1900's. The site formed part of a larger allotment which was subdivided over time with ownership of the Audit area transferred to Jack Road Investments Pty Ltd in July 2014.

A summary of the historical use of the site is provided in

Table 3.1 below.

Table 3.1 Summary of Historical Site Use

Year	Historical site use
1922-1949	Owned by natural persons. Used as a market garden.
1949-1997	Owned by natural persons (Engineers) and transferred to Memac Investments Pty Ltd in 1951, and then to Homfray Carpets Pty Ltd in 1982. Used for carpet manufacturing. It is noted that the carpet factory is first listed at the site in 1959.
1997-July 2014	Owned by HRR Nominees Pty Ltd. Occupied by Ramler Furniture and used for furniture manufacturing and other light commercial/industrial operations (i.e. cabinet maker, insulation distributor, car storage, furniture freighter and powder coating workshop).
July 2014-present	Owned by Jack Road Investments Pty Ltd Vacant.

From the site walkover undertaken in January 2012, Alliance reported that the site was occupied by one double and two single storey buildings used for a combination of office, showroom and factory space with asphalt car parking areas and a grassed area in the south western corner of the site. Tenants included a cabinet makers, foilboard insulation distributers, car storage, powder coating company and furniture freighters. Waste products from the on-site activities were generally solid and placed into skips for off-site disposal. Waste liquids from the powder coating lines were removed by EPA licensed contractors.

Anecdotal evidence obtained during the Alliance site walkover reported that when the furniture manufacturers took over the site form the carpet manufacturers in 1997, the machinery pits and extensive below floor drainage system associated with carpet manufacturing processes were infilled with concrete. Evidence of these filled areas was apparent during the site walkover. It was also reported that the concrete floor and drainage system in the former dye house was significantly deteriorated from dyeing activities conducted in that portion of the site.

Two underground storage tanks were noted to be located beneath or adjacent to the northern wall of the former boiler house. Associated vent pipes were observed during the site walkover. A concrete bunded area was observed in the south western corner of the site, and Alliance's review of previous environmental site assessment reported indicated that a 5,000 L above ground caustic soda tank (associated with the former effluent treatment plant used during the carpet manufacturing process) was located within this bunded area and was removed when the carpet factory closed. It has been previously reported that caustic soda remaining in the tank when it was dismantled may have discharged directly in the soil surrounding the bunded area.

The site layout/features of the former carpet manufacturing activities are presented on Figures 7-12.

At the time of LRM's initial site visit in July 2013 (at the commencement of the audit), the site was still tenanted and the layout had not changed from Alliance's site visit in January 2012). The site was vacated in September 2013, with demolition of the site occurring from approximately November 2013 (commencing with asbestos removal) to March 2014.

As described within Section 6 of the Audit ESA report (September 2014), LRM conducted multiple site visits over the course of the audit, including several visits during demolition of the buildings. LRM undertook a site walkover on 4 September 2013 to assess the site condition prior to demolition. It was noted that at the time of this visit the site was still being used and as such little access was available due to the large volume of stored furniture and abandoned equipment within the site buildings. During this walkover, all previous boreholes and site drainage features, and underground assets were identified by LRM and surveyed by a licensed surveyor. LRM also identified evidence of the former carpet manufacturing activities at the site, including the in-filled drainage features.

LRM communicated regularly with the demolition contractors of the site and conducted multiple site visits throughout November 2013 – March 2014, with particular focus on observing removal of concrete slabs and removal of many of the drainage system features. A bituminous crushed rock fill material (as consistent with Alliance observations noted in their borelogs) was observed across much of the site. Occasional pieces of asbestos cement sheeting were visible on the surface of the site. No other evidence of staining, odours or gross contamination was observed across the surface of the site following removal of the concrete slabs.

Two underground storage tanks in the north of the site were known to be present. However, no additional evidence of underground storage tanks or below ground features (such as pits), was observed across the site.

3.2.1 Surrounding land uses

The site history assessment undertaken by Alliance indicated that the area in the vicinity of the site consisted of residential properties, market gardens and poultry farms and a timber merchant until circa 1950. Post World War 2, the area surrounding the site was developed into a mix of residential properties and industrial uses including paint manufacturing, chemical manufacturing, printers and inks, paper merchant, motor engineers and a service station, bedding manufacturer and an electrical appliances manufacturer.

Current land uses immediately adjacent to the site are as follows:

- North: the Grendas Bus depot located at (10/12 Phillip Street Cheltenham);
- South: the former Kemrez-ICI chemical manufacturing plant (located at 9-41 Charlton Avenue, Cheltenham); and
- West: Immediately adjacent to the western site boundary is the former finished goods store for used as part of the Homfray Carpet manufacturer (now disused). The carpet manufacturing site has since been subdivided and does not include this portion. Beyond that is Gibson Chemicals.
- East: low density residential.

3.3 Environmental Audits from Surrounding Sites

Fourteen audits have been completed in the vicinity of the site. Figure 2 shows the location of each of these audits. Of these audits, two were identified as being the most relevant in regards to investigations works for the subject site:

- 9-41 Charlton Avenue, Cheltenham located adjacent to the southern boundary of the site – 53X Audit completed by Michael Rehfisch on 3rd September 2013 (EPA Reference 69782-1/7000514).
- 18-22 Hamlet Street, Cheltenham located 340m north-east of the site – 53V Audit completed by Anthony Lane on 8th September 2011 (EPA Reference 62617-1).

Detailed reviews of these audits were conducted by LRM and the Auditor, as summarised in Section 5.3 of the LRM Audit ESA report (September 2014) and Table D (appended to this report).

In addition, an information package for 10/12 Phillip Street, Cheltenham, the Grendas Bus Depot located directly adjacent to the north of the site, was provided to LRM and the Auditor. The information package comprised a site plan showing groundwater well locations and inferred groundwater flow direction. Borelogs and NATA endorsed laboratory analysis results (dated 21st October 2011) for wells MW13 to MW15 were also provided. It is noted that results for the remainder of the wells were not provided, despite the request having been made. The data package is provided in Appendix B of the LRM (September 2014) Audit ESA report.

In reviewing information provided from the three surrounding sites, the following pertinent information was noted:

- Elevated concentrations of volatile chlorinated hydrocarbons (VCHs) were identified in soil in the south-eastern corner of the 18-22 Hamlet Street site. The Audit concluded that it is likely that VCH-contaminated soil extends from the site to the south and possibly also the east;

- Elevated concentrations of dissolved phase petroleum and chlorinated hydrocarbons (including BTEX, TPH, TCE, DCE, carbon tertachloride, dichloromethane, trichloroethene, tetrachloroethene, chloroform, 1,1-dichlorothane, 1,1-dichloroethene, vinyl chloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene and chlorobenzene) were identified in groundwater at 18-22 Hamlet Street, up-hydraulic gradient from the site;
- Detectable concentrations of TCE (0.38µg/L) and PCE (1.48µg/L) were reported in well MW15 at 10/12 Phillip Street. Well MW15 is located directly to the north of the current Audit site (refer to Figure 3) and the site plan provided shows the inferred groundwater flow direction is to the south/south-west;
- No detectable VCHs were have been identified in groundwater (shallow or deep) on-site at 9-41 Charlton Ave; and
- Groundwater at both 9-41 Charlton Avenue and 18-22 Hamlet Street was reported to be interacting with underground services.
- The presence or absence of perched water on the site at 10-12 Phillip Street is unknown as no information in this regard was provided to LRM or the Auditor. Perched water across the site at 9-41 Charlton Avenue was confirmed and investigated as part of the Audit conducted from 2011-2013. Groundwater investigations at 18-22 Hamlet St were not able to differentiate between perched and deep groundwater and as such groundwater at the site was considered as one aquifer for the purposes of the audit.

It is also noted that remediation works have recently been completed at 9-41 Charlton Avenue, removing soils with elevated concentrations of TRH associated with linseed oil impact causing methane in soil gas. The report outlining the remediation works undertaken is provided in Appendix B of the LRM (September 2014) Audit ESA report.

3.4 Potential sources of contamination

Based on information provided in the Alliance (February 2012) Phase 1 ESA report, the LRM (September 2014) ESA report, in Appendix J of Australian Standard AS4482.1 (2005) and in the Auditor's own experience, the following potential sources of contamination based on the former historical use of the site were identified:

- The presence of imported fill material;
- Market gardening activities;
- Carpet manufacturing activities. The main carpet manufacturing areas were located in the southern part of the site and included the dye house, effluent treatment plant (with associated 5,000L above ground caustic soda tank), daily dye store, piece dye machine, resin pit and print line. Yarn storage and bulk store areas, winding and spinning plants and tufting plants were located in the central and eastern parts of the site with the finishing plant, shearer machine and axminster plan located in the northwest part of the site.
- A boiler house, with two associated underground storage tanks (USTs) used for the storage of diesel, located in the central northern part of the site;
- A workshop located in the central part of the site (to the south of the boiler house);
- A triple interceptor trap (TIT) in the northwest corner of the site; and
- Two electrical substations located in the centre and northwest parts of the site.

Identified potential contaminants of concern associated with the historical use of the site or the industrial use of the surrounding land included:

- Total petroleum hydrocarbons (TPH), monoaromatic hydrocarbons (MAH; including benzene, toluene, ethylbenzene and xylenes – BTEX), polycyclic aromatic hydrocarbons (PAHs), phenolic compounds and heavy metals;
- Solvents and volatile organic compounds (VOCs; including volatile chlorinated hydrocarbons - VCHs);

- Acids and alkalis, phthalate esters, oxygenated compounds (including vinyl acetate, MBK), nitrosamines, nitroaromatics and ketones, haloethers, anilines and benzidines;
- Cyanide and fluoride;
- Organochlorine/organophosphorous pesticides (OCPs and OPPs) and herbicides;
- Compounds containing N, S and P;
- Polychlorinated biphenyls (PCBs); and
- Asbestos containing materials (ACM);

In addition, the following potential contaminants of concern associated with the historical industrial use of surrounding sites only were identified:

- Acetaldehyde, formaldehyde and acrylate associated with the chemical manufacturing plant formerly located at 9-41 Charlton Avenue, Cheltenham; and
- Methane sourced from impacted clean fill imported in error to backfill excavations at 9-41 Charlton Avenue (however as noted above, the methane source has more recently been remediated at this site and is therefore no longer considered a potential source to the site)..

All identified potential contaminants of concern for the site identified are listed in Table E and potentially contaminating landuses in the vicinity of the site are presented on Figure 2. The analytical schedule for soil, groundwater and soil vapour adopted by LRM in relation to the potential contaminants of concern for the site is also summarised in Table E. Based on all the historical information gathered relating to the site and surrounds the Auditor considers the analytical suite and sampling locations to be appropriate to identity environmental issues that may pertain to the site.

3.5 Contaminant Transport Pathways and Mechanisms

The following potential contaminant transport pathway and mechanisms have been identified for mobile contaminants that may be present at the site:

- Underground services - underground services have the potential to transmit contaminants given that they are usually backfilled with gravel which has a higher permeability than the surrounding aquifer lithology. A number of drainage services have been identified at the site, including main sewer and stormwater easements that formerly ran through the eastern part of the site from north to south. These sewer and stormwater easements were removed during site demolition works in February 2014. All on-site services are presented on Figure 13 off-site services within the vicinity of the site are presented on Figure 14.
- Unsaturated zone and perched groundwater – i.e. solute transport of contaminants through the unsaturated zone and via perched groundwater;
- Groundwater;
- Vapour.

3.6 Potential Human and Environmental Receptors of Contamination

Based on the background information obtained, it is anticipated that exposure to potential contaminants from site soils and/or groundwater may occur through the following potential pathways (for sensitive site use).

- Ingestion of surface soil by site users.
- Human contact with surface and sub-surface soils.
- Plant uptake through garden cultivation in surface and sub-surface soils and subsequent ingestion through consumption of the garden produce.

- Plants and soil fauna.
- Dermal contact with surface and sub-surface soils by site workers (short-term construction or maintenance activity).
- Ingestion of soils by site workers (short-term construction or maintenance activity).
- Inhalation of airborne dusts by site workers (short-term construction or maintenance activity) with surface and sub-surface soils.
- Off-site impact through dust inhalation resulting from on-site construction activity/disturbance of surface soils.
- Vapour impact (indoor) to site users by volatilisation from site soils.
- Vapour impact to users of adjacent sites (indoor and outdoor) by volatilisation from site groundwater.
- Users of extracted groundwater.
- Off-site ecosystems, where groundwater may discharge.

It is noted that for the purposes of an Environmental Audit, consideration must be given to potential receptors in the context of unrestricted use. It is noted that not all of the above receptors are likely to be applicable under the currently proposed medium/high-density residential use.

The Conceptual Site Model is shown on Figure 6.

4 Relevant Segments of the Environment (Assessment of Beneficial Uses Relevant to the Site)

All elements forming part of the site, and all beneficial uses of those elements, have been considered with the completion of this environmental audit. The term 'Beneficial Use' is defined in the *Environment Protection Act 1970* and those beneficial uses to be protected for the various elements are set out within the respective State Environmental Planning Policies (SEPPs). This audit report will consider whether the "…conditions of the relevant segment of the environment is or is potentially detrimental to any beneficial use of..." the site. Elements forming part of the site that have been evaluated are listed below.

4.1 Land

The protected beneficial uses of land are defined in the SEPP *Prevention and Management of Contamination of Land* (2002) (*Variation No. G39 Gazette, 26 September 2013)*, with the SEPP detailing those beneficial uses that are protected based on specific land use categories.

4.2 Groundwater

The protected beneficial uses of groundwater are defined in the SEPP *Groundwaters of Victoria* (1997) on the basis of the inherent capacity of the groundwater (i.e. the concentration of total dissolved solids) at the site to support specific uses.

4.3 Surface Water

Surface water is not an element to be audited as there are no surface water bodies within the segment being audited. The nearest surface water body is Port Phillip Bay, located approximately 2.7km south-west of the site.

4.4 Air

Beneficial uses of air may be considered relevant in determining the outcome of the environmental audit, where those beneficial uses may be adversely affected by the condition of other elements at the site.

5 Adopted Assessment Criteria

5.1 National Environment Protection Measure Amendment 2013 (No. 1)

The National Environment Protection Council (NEPC), under the National Environment Protection Council Act 1994 formulated the NEPM (Assessment of Site Contamination) in 1999. All States and Territories of Australia were signatories to the making of the NEPM, including Victoria.

The NEPM aims to provide adequate protection of human health and the environment where site contamination has occurred. In Victoria, the NEPM is mainly implemented through the State Environment Protection Policy (SEPP) (Prevention and Management of Contamination of Land) 2002 (*Variation No. G39 Gazette, 26 September 2013)*. However, it is also indirectly administered through the SEPP (Groundwaters of Victoria) 1997, the Environment Protection (industrial Waste Resource) Regulations 2009, the Planning and Environment Act 1987 and the environmental audit system for contaminated land, which provides the administrative framework for assessing site contamination.

As scientific understanding of the substances and interactions with the environment improve, so too does our ability to provide more accurate analysis on the acceptability of substances in the environment and their influence on human health. The need to incorporate this new scientific and technical information into the NEPM has been recognised. The amended NEPM was agreed to by the Environment Ministers of Australia at a meeting of the Standing Council on Environment and Water (SCEW) meeting on 11 April 2013. The amended NEPM formally came into operation on 16 May 2013.

5.2 Soil

The SEPP *Prevention and Management of Contamination of Land* (2002) (*Variation No. G39 Gazette, 26 September 2013)* sets out the regulatory framework for the prevention and management of contaminated land within the State of Victoria. The intent of this framework is to maintain and maximise (to the extent practicable) the quality of the land environment in Victoria in order to protect its existing and potential beneficial uses.

The Land SEPP (2002) identifies specific land use categories as well as a number of protected beneficial uses associated with each of the land use categories. The EPA considers that land (soil) is polluted where current and/or future protected beneficial uses for the relevant land use categories are precluded. Beneficial uses of land are considered to be precluded when relevant soil quality objectives set out in the Land SEPP (2002) for those beneficial uses have been exceeded. Based on this assessment, the Auditor can evaluate the potential to issue a Certificate or Statement of Environmental Audit, based on the proposed land use. It is noted that no specific reference to 'medium' density is made within the Land SEPP (2002). For the purposes of this audit, medium density is defined as per Appendix 4 of EPA Publication 759.2. Where the potential site suitability for 'high density' is discussed/assessed within this audit, it is considered to also encompass the site's suitability for 'medium' density.

Beneficial uses of land requiring protection under the proposed medium/high density residential and recreational/open space uses are shaded in Table 5.1 below.

Table 5.1 Protected Beneficial Uses of Land

Beneficial Uses	Land Use						
	Parks & Reserves	Agricultural	Sensitive Use[3]		Recreational / Open Space	Commercial	Industrial
			High Density	Other			
Maintenance of Ecosystems:-							
Natural Ecosystems	✓						
Modified Ecosystems	✓	✓		✓	✓		
Highly Modified Ecosystems		✓	✓	✓	✓	✓	✓
Human Health	✓	✓	✓	✓	✓	✓	✓
Buildings & Structures	✓	✓	✓	✓	✓	✓	✓
Aesthetics	✓		✓	✓	✓	✓	
Production of Food, Flora & Fibre	✓	✓		✓			

Notes:

1. The above table is a reproduction of Table 1 from the State Environment Protection Policy Prevention and Management of Contamination of Land (June 2002).
2. Shading denotes beneficial uses to be protected for the purpose the proposed medium-high density residential and recreational/pen space development. Other beneficial uses have been considered in the context of determining whether the site would also be suitable for beneficial uses relevant to a type of development different than the proposed site use.
3. Sensitive Use is defined within the Land SEPP (2002) as the following: 'Sensitive use: consisting of land used for residential use, a child care centre, pre-school, or primary school. A sensitive use may occur in an area of High density (where development makes maximum use of available land space and there is minimal access to soil) or in other lower density areas (where there is generally substantial access to soil)'.

Based on the above table and with specific consideration to the Land SEPP (2002), the following beneficial uses would need to be protected for unrestricted use of the site:

- Maintenance of Modified Ecosystems;
- Maintenance of Highly Modified Ecosystems;
- Human Health;
- Buildings and Structures;
- Aesthetics; and
- Production of Food, Flora and Fibre.

In order to evaluate the potential impact to all beneficial uses in the context of unrestricted use, the adopted criteria were based on NEPM EILs/ESLs for residential use and HIL/HSL 'A'. Comparison with these criteria will be made for assessing the possibility of issuing a Certificate of Environmental Audit. Where the site does not meet these criteria, a Certificate of Environmental Audit may not be able to be issued. In such cases, comparison with EILs/ESLs for residential use and HIL/HSL 'B' and 'C' levels will be made to determine whether it is possible to issue a Statement of Environmental Audit and hence whether the site is suitable for possible medium/high density or recreational/open space site use respectively.

Soil criteria were adopted from the guidelines listed in sections a) to e) below to assess if the site precludes any of the beneficial uses requiring protection as per Table 2 of the Land SEPP (2002). Where the listed guidelines do not state criteria for specific analytes, alternative criteria (e.g. the US EPA Regional Screening Levels, NSW EPA threshold concentrations for sensitive landuse or CCME Soil Quality Guidelines) have been adopted for completeness. It is noted that in some cases, alternative criteria have not been adopted in the reports by the assessor, and consequently, in some cases, the identification of contaminants and discussions drawn in these reports differ to those identified by the Auditor. Nonetheless, the Auditor's evaluation of the dataset has been used to determine the condition of the site and its suitability.

Adopted criteria (including alternative criteria) are referenced in Table E1 (Adopted Soil Assessment Criteria). Table E1 includes criteria to assess the site's suitability for unrestricted use (Certificate of Environmental Audit) and for other potential site uses such as medium/high density residential (HIL/HSL 'B') and recreational/open space (HIL/HSL 'C') (Statement of Environmental Audit).

a) Maintenance of Ecosystems

The protection of the beneficial use 'Maintenance of Ecosystems' is assessed with reference to the EILs and ESLs (NEPM, 2013). EILs are available for selected metals and organic substances and ESLs are available for selected petroleum hydrocarbon compounds and total petroleum hydrocarbon (TPH) fractions. Both EILs and ESLs are applicable for assessing risk to terrestrial ecosystems, depend on land use scenarios and generally apply to the top 2m of soil.

ESLs are provided in NEPM (2013) for both coarse and fine grained soils. Given the sandy geology encountered in most areas within the top 2m at the site, the Auditor has adopted the coarse grained ESLs for the purpose of the Audit.

Generic EILs are provided in NEPM (2013) for DDT, naphthalene, arsenic and lead and site-specific EILs can be calculated for copper, zinc, chromium III and nickel based on soil physicochemical properties comprising pH, cation exchange capacity (CEC) and % clay. The urban residential EILs have been adopted for all residential land use scenarios. For the purpose of the derivation of the site-specific EILs it was assumed:

- Any copper, zinc, chromium III or nickel contamination present was aged;
- Fill and natural soils (sand and clay) were characterised by the average reported CEC, pH, % organic carbon content,% iron and/or % clay content result in each domain;
- The site was located in a high traffic area.

It is noted that only results from samples analysed specifically with the purpose as assessing the site's physicochemical parameters were included within the EIL calculations. As such, several additional samples that were analysed for pH have not been included within the EIL calculations. Although some of the additional results reported a pH outside the range of those used to calculate EILs, in general the pH range reported was consistent with that which was used to calculate EILs. The site-specific EILs adopted for the Audit are summarised in Table E1 (Adopted Soil Assessment Criteria).

Where EIL/ESLs are not been defined in the NEPM (2013), ecological investigation levels from international authorities including the US EPA, Canada and RIVM have been referenced, as shown in Table E1.

b) Human Health

The protection of the beneficial use 'Human Health' is assessed with reference to the NEPM guidelines comprising Health Investigation Levels (HILs) and Health Screening Levels (HSLs). HILs are provided for a broad range of metals and organic substances and are applicable for assessing human health risk via all relevant pathways of exposure. The HILs are generic to all soil types and apply generally to a depth of 3m below the surface for residential use.

HSLs are available for selected petroleum compounds and fractions and are applicable to assessing human health risk via the inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. They apply to different soil types, and depths below surface to >4 m.

Both HILs and HSLs are provided for a range of site uses including standard residential (exposure setting A), residential with minimal soil access (exposure setting B), public open space (exposure setting C) and commercial / industrial (exposure setting D). HIL Level 'A' criteria are used to evaluate the potential impact to the protection of human health in the context of unrestricted site use, with HIL Level 'B' and 'C' criteria

used to evaluate the potential impact to the protection of human health in the context of the proposed medium-high density and recreational/open space development respectively.

c) Buildings and Structures

The Land SEPP (2002) states that "contamination must not cause the land to be corrosive to or adversely affect the integrity of structures or building materials". In the part of Melbourne in which the site is located, ground conditions are not considered likely to present any threat to buildings and structures, this aspect can be assessed from field observations (i.e. condition of concrete and soil) and analytical results (i.e. pH). Where structures are likely to come into contact with contaminated soils, audit criteria for pH, chloride and sulphate can be adopted from AS 2159-2009 Piling – Design and Installation (SAI Global 2009).

d) Aesthetics

The Land SEPP (2002) states that "contamination must not cause the land to be offensive to the senses of human beings". Currently there are no concentration based aesthetic criteria for soil therefore Aesthetics has not been included in Table E1. While aesthetic observations are subjective, it is considered that if there is discolouration, noticeable odour from the soil on the site or if there are obvious substantial components of waste, such as rubble, slag, bagged waste or similar, then there is a potential aesthetic concern.

e) Food, Flora and Fibre

The Land SEPP (2002) states that "contamination must not adversely affect produce quality or yield" and "affect the level of any indicator in food, flora and fibre produced at the site (or that may be produced) such that the level of the indicator is greater than specified by the Australian New Zealand Food Authority, Food Standards Code".

The Food Standards Code sets out the maximum level of specified metal and non-metal and natural toxicants in nominated foods, maximum residue limits for a chemical to be present in a food, extraneous residue limits for a pesticide residue to be on a food, and provides details with regard to permissible articles and materials.

In consideration of the above, the Auditor has primarily assessed the protection of the beneficial use 'Production of Food, Flora and Fibre' with reference to the phytotoxicity-based interim urban EILs (NEPM, 1999). However, as the potential for a specific soil contaminant to adversely affect the beneficial use 'Production of Food, Flora and Fibre' is also a function of the bioavailability of the contaminant, where appropriate, the Auditor has also assessed the protection of the beneficial use 'Production of Food, Flora and Fibre' with consideration to site-specific and/or published lines of evidence (such as the physical characteristics and mobility of the contaminant(s) of concern).

Adopted criteria (including alternative criteria) are provided in Table E1 (Adopted Soil Assessment Criteria).

5.3 Groundwater

The quality of groundwater in Victoria is protected under the SEPP *Groundwaters of Victoria* (1997), issued under the Environment Protection Act 1970. The stated goal of this policy is to "*maintain and where necessary improve groundwater quality sufficient to protect existing and potential beneficial uses of groundwaters throughout Victoria"*.

The significance of contaminant impact upon groundwater is assessed in conjunction with the applicable beneficial use. The Groundwater SEPP (1997) defines a range of protected beneficial uses for specific segments of the groundwater environment, which are based on groundwater salinity. The EPA considers that groundwater is polluted where current and/or future protected beneficial uses for the relevant segment are precluded. Beneficial uses of groundwater are considered to be precluded when relevant groundwater quality objectives for those beneficial uses have been exceeded, or where non-aqueous phase liquid is present on or within the groundwater aquifer. Based on the results of this assessment, the Auditor can evaluate the potential to issue a Certificate or Statement of Environmental Audit, based on the proposed use.

The Groundwater SEPP (1997) defines a range of beneficial uses on the basis of groundwater salinity (i.e. the lower the salinity, the greater the range of potential beneficial uses). A reproduction of Table 2 (Protected Beneficial Uses of the Segments) from the Groundwater SEPP (1997) is provided below as Table 5.2. Shading indicates beneficial uses to be protected for this site based on the lowest reported groundwater TDS.

Groundwater at the site occurs at approximately 0.5 to 2mbgs in the perched aquifer and at approximately 7 to 10mbgs in the deep aquifer.

The following information was considered by the Auditor when classifying groundwater at the site in accordance with the SEPP (1997) *Groundwaters of Victoria*:

- TDS concentrations in the range 200mg/L (Segment A1) to 3,300mg/L (Segment B) were reported for the perched aquifer at the site. The mean TDS concentration was 1,148mg/L (Segment B). Of the eight wells sampled, two wells reported TDS concentrations in the range for Segment A2, four wells reported TDS concentrations in the range for Segment B, one well reported TDS concentrations in the range for Segment A1 and one well reported TDS concentrations in the range for Segments A1 to B.
- TDS concentrations in the range 220mg/L (Segment A1) to 4,100mg/L (Segment C) were reported for the deep aquifer at the site. The mean TDS concentration was 1,596mg/L (Segment B). Of the 24 wells sampled, five wells reported TDS concentrations in the range for Segment A1, five wells reported TDS concentrations in the range for Segment A2, nine wells reported TDS concentrations in the range for Segment B, one well reported TDS concentrations in the range for Segment C, three wells reported TDS concentrations in the range for Segment A2 or B and one well reported TDS concentrations in the range for Segment B or C.
- The Audit for 9-41 Charlton Avenue, Cheltenham concluded that groundwater within the perched aquifer was within Segment A1 and groundwater within the deep aquifer was within Segment B.
- The Audit for 18-22 Hamlet Street, Cheltenham concluded that groundwater was within Segment A1 as TDS concentrations below 500mg/L were reported. It is noted that the work undertaken as part of the Audit was not sufficient to differentiate between the perched and deep aquifers.

On the basis of the information outlined above, the Auditor conservatively considered that both the perched and deeper aquifers at the site were classified within Segment A1 in accordance with the SEPP (1997) *Groundwaters of Victoria.*

Table 5.2 Aquifer Classification Based on Onsite TDS Concentrations

Beneficial Uses	Segments Based on TDS Range (mg/L)				
	A1	A2	B	C	D
	0 - 500	501 – 1,000	1,001 – 3,500	3,501 – 13,000	Greater than 13,000
Maintenance of Ecosystems	✓	✓	✓	✓	✓
Potable Water Supply					
- Desirable	✓				
- Acceptable		✓			
Potable Mineral Water Supply*	✓	✓	✓		
Agriculture, Parks and Gardens	✓	✓	✓		
Stock Watering	✓	✓	✓	✓	
Industrial Water Use	✓	✓	✓	✓	✓
Primary Contact Recreation	✓	✓	✓	✓	✓
Buildings & Structures	✓	✓	✓	✓	✓

Note: The above table is drawn from State Environment Protection Policy (Groundwaters of Victoria), December 1997.

* Potable Mineral Water is not relevant as the site is not located in a mineral springs area.

Based on the Groundwater SEPP (1997), the following beneficial uses would need to be protected for the TDS reported at the site:

- Maintenance of Ecosystems;
- Desirable Potable Water Supply;
- Potable Mineral Water Supply;
- Agriculture, Parks and Gardens;
- Stock Watering;
- Industrial Water Use;
- Primary Contact Recreation; and
- Buildings and Structures.

Groundwater criteria have been adopted from the guidelines listed in sections a) to h) below to assess if the site precludes any of the beneficial uses requiring protection. Primary reference has been made to the listed guidelines, however, where no specific criteria are available, alternative criteria have been adopted. It is noted that in some cases, alternative criteria have not been adopted in the consultants' reports and consequently in some cases the identification of contaminants and discussions drawn in some of the consultants' reports differ to those identified by the Auditor. Nonetheless, the Auditor's evaluation of the dataset has been used to determine condition of the site and its suitability.

a) Maintenance of Ecosystems

Aquatic ecosystem criteria are generally applied at the point of groundwater discharge off-site, however as a conservative screening method the fresh aquatic ecosystem criteria have been initially applied at the point of measurement (i.e. on-site) as there is no nearby immediate surface water body where groundwater may discharge to.

The closest surface water body to the site is Port Phillip Bay located approximately 2.7km to the southwest of the site.Therefore, where available, criteria from the SEPP (1997) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay have been referenced by the Auditor as the primary criteria. In the event that no criteria are available in Schedule F6, the appropriate ecological protection criteria from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) have been adopted.

Where no ANZECC 2000 criteria are available, the following international criteria have been referenced (as shown on Table E2):

- US EPA 2003 Region 5 RCRA Ecological Screening Levels (ESLs) (US EPA 2003).
- Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Dutch Intervention Value.)
- Canadian Water Quality Guidelines for the Protection of Aquatic Life (2007) (CCME 2007) Freshwater.

b) Desirable Potable Water Supply

The primary source of criteria for the protection of the beneficial use of 'Potable Water Supply' is the Australian Drinking Water Guidelines (ADWG; NHMRC and NRMMC 2011). Due to the absence of criteria for some organic contaminants in the ADWG, the USEPA Regional Screening Levels (RSLs) for tap water have been adopted

c) Potable Mineral Water Supply

The site is not located within a recognised mineral springs area therefore this beneficial use is not considered further in this report.

d) Agriculture, Parks and Gardens

According to SEPP (1997), groundwater quality objectives for the beneficial use 'Agriculture, Parks and Gardens' are trigger values provided in ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters (Water Quality Guidelines for Agricultural Water Use). The Auditor has referenced the more current ANZECC (2000) Irrigation criteria for Agricultural Water Use. Due to the absence of TPH criteria in ANZECC (1992) the auditor has adopted the Dutch Ministry of Housing, Spatial Planning and Environment (2009) Groundwater Intervention Criteria criterion for mineral oil as the TPH groundwater quality objective.

e) Stock watering

The primary source of criteria for the protection of the beneficial use of livestock watering is ANZECC (2000) National Water Quality Management Strategy, Australian Water Quality Guidelines for Fresh and Marine Waters, Water Quality Guidelines for Agricultural Water Use (Livestock). The Australian Drinking Water Guidelines (NHMRC and NRMMC 2011) have been referenced where no criteria are listed in the ANZECC 2000 guideline. Due to the absence of TPH criteria in ANZECC (1992) the Auditor has adopted the Dutch Ministry of Housing, Spatial Planning and Environment (2009) Groundwater Intervention Criteria criterion for mineral oil as the TPH groundwater quality objective.

f) Industrial water use

The ANZECC (1992) National Water Quality Management Strategy, Australian Water Quality Guidelines for Fresh and Marine Waters, Water Quality Guidelines for Primary Industries guidelines have been adopted. There are numerous potential industrial uses of groundwater, and indeed some of those industrial uses may require relatively high quality groundwater – such as for pharmaceutical industries and in some cases for use in corrosion sensitive manufacturing equipment. However, as the applicable criteria for industrial water use are highly specific to the type of process, criteria for industrial water use have not been included in Table

E2. There are no nearby industrial facilities in the down-gradient direction from the site so 'generic guidelines' have been considered appropriate, and in the event that any other relevant beneficial use is compromised by a specific contaminant then, from a conservative stance, it will be deemed that industrial use is also compromised by that contaminant.

Given the above and the wide and diverse potential for Industrial Use, it will be accepted that if any other beneficial use (excluding Maintenance of Ecosystem as this is not an extractive groundwater use) is precluded due to the presence of pollution then it will be deemed that Industrial Use is also precluded by the same contaminants.

g) Primary contact recreation

The primary source of criteria for the protection of the beneficial use of primary contact recreation is the Australian Guidelines for Managing Risks in Recreational Water (NHMRC and NRMMC 2008). It is noted that this publication referenced the 2004 Australian Drinking Water Guidelines (ADWG; NHMRC and NRMMC 2004) which has now been replaced with the updated 2011 guidelines.

These NHMRC (2008) guidelines do not provide screening values, but rather suggest that a *'substance occurring in recreational water at a concentration of 10 times that stipulated in the drinking water guidelines may merit further consideration'*. This is conservatively based on primary contact recreational exposure via swimming (i.e. worst-case), where it is assumed that 200 mL of water per day is incidentally ingested during a swimming event. This equates to 10% of the typical daily drinking water consumption of 2L. As such, the 2011 ADWG values have been referenced and adopted, and for non-volatile chemicals the value has been adjusted by a factor of 10. Aesthetic criteria for non-volatiles have not been adjusted by a factor of 10.

ANZECC (2000) National Water Quality Management Strategy, Australian Water Quality Guidelines for Fresh and Marine Waters, Water Quality Guidelines "Recreational Waters Use" and ANZECC (1992) National Water Quality Management Strategy, Australian Water Quality Guidelines for Fresh and Marine Waters, Water Quality Guidelines Raw Water have been referenced where no guidelines are provided within the 2011 ADWG

In addition, due to the absence of TPH criteria in the above listed sources, the Auditor has adopted the Dutch Ministry of Housing, Spatial Planning and Environment (2009) Groundwater Intervention Criteria criterion for mineral oil as the TPH groundwater quality objective. The US EPA Regional Screening Levels (RSLs) for tap water have also been referenced.

h) Buildings and structures

The Groundwater SEPP states that "introduced contaminants shall not cause groundwater to become corrosive to structures or building materials". Where shallow groundwater is present and structures may come into contact with groundwater, a screening value of 1,000,000µg/L for sulfate (as SO_4) has been adopted from the Piling Code, AS 3600-2009.

Adopted criteria (including alternative criteria) are referenced in Table E2. It is noted that the Auditor has also given cognisance to the Groundwater HSLs in order to consider potential vapour risks to future occupants of the site from any petroleum hydrocarbons identified in groundwater. Where no other criteria were available the Auditor has adopted other relevant international criteria (as shown in Table E2).

5.4 Vapour

The Auditor has considered the beneficial uses of air where those beneficial uses may be adversely affected by the condition of other elements (i.e. land or groundwater) at the site. Specifically, the potential human health risks to future users of the site associated with vapour intrusion and subsequent inhalation of organic contaminants in groundwater was considered.

For the assessment of vapour intrusion, the vapour concentrations reported in soil vapour bore SVB01, installed at the site adjacent to well MW13 (refer to Section 6.11 below), were compared to the vapour intrusion screening levels provided in the NEPM (NEPC, 2013).

The adopted criteria are referenced in Table E3. Cognisance has also been given to the soil and groundwater HSLs provided in NEPC (2013) – refer to Sections 5.2 and 5.3 above.

It should be noted that measured values in soil vapour, or estimated source soil vapour concentrations, are not necessarily representative of the exposure concentration for a future on-site user. When volatiles in soil vapour migrate from a subsurface soil or groundwater source into a building overlying the impacts, the volatiles will be subject to one or more processes such as diffusion, degradation, mixing, and dispersion. These processes have the overall effect of a reduction in indoor air concentrations compared to those in the underlying soil vapour. Given this, a site-specific Health Risk Assessment was undertaken by Ms. Karen Teague, the Auditor's expert support for Contaminant Transport and Assessment of Exposure Pathways and Risk (refer to Section 6.14 below).

5.5 Quality and Completeness of Assessment Consultants' Reports

This Environmental Audit report provides an audit on the environmental quality of the segment of land at the subject site and relies upon site assessment works conducted by the assessment consultants for the audit, LRM, and works conducted prior to the commencement of the Audit by Alliance. As the Alliance soil and groundwater assessment works were undertaken prior to the commencement of the Audit, less weight has been placed on the results obtained by Alliance when considering the potential risk to the protected beneficial uses of the site, i.e. they have been considered as supplementary information. LRM undertook extensive validation works across the site which served to both verify Alliance sample results and provide additional site characterisation data. The exception is the Alliance (February 2012) Phase 1 ESA Report which was considered in its entirety, with some minor additional information supplemented by LRM.

During the course of the Audit, the work completed by LRM has been reviewed by the Auditor in the context of its completeness in accordance with relevant Regulations and Guidelines. In addition, LRM provided scopes of work to the auditor for review and comment prior to commencement of the majority of field works. The Auditor generally concurred with the proposed scopes of work provided by LRM and provided on-going guidance where appropriate, including specific written comment throughout the Audit.

The specific details of the assessment, including the nature and extent of soil contamination, are described in detail later in relevant sections of this Environmental Audit Report. This section reviews the quality and completeness of the environmental assessment works performed LRM, assessing these attributes against the requirements of Appendix 2 of the *Environmental Auditor (Contaminated Land) Guidelines for Issue of Certificates and Statements of Environmental Audit* (EPA Victoria 2014) (EPA Publication 759.2). Conformance with other key requirements of the *National Environment Protection (Assessment of Site Contamination) Measure 2013 (No. 1)* has also been included in this assessment.

The Auditor has considered the following aspects of the LRM site assessment report:

- The contents of the site assessment report;
- The scope of site investigations to support an Environmental Audit;
- The information required for chemicals of concern;
- The significance of site investigation results.

The LRM assessment reports that have been reviewed are listed above in Section 2.2.3. The review of the completeness of all LRM assessment works are summarised in Table F.

From an overall perspective it is concluded that the dataset developed by LRM, alongside the supplementary information provided by Alliance, provides a reliable understanding of potential site contamination. It is therefore

considered that the information provided by Alliance and LRM provide an appropriate basis for use for the Environmental Audit report.

5.6 Quality Assurance

This section of the Environmental Audit report focuses on the fieldwork and analysis undertaken as part of the environmental site assessment and the LRM implemented quality assurance programmes to ensure the reliability and traceability of samples collected. It is noted that key features were:

- Sampling procedures were undertaken using the guidance of AS4482.1-2005, AS4482.2-1999, EPA Victoria Publications IWRG701 - Sampling and Analysis of Waters, Wastewaters, Soils and Wastes.
- Decontamination of all sampling equipment was conducted between samples to ensure cross contamination could not occur. LRM's decontamination procedures were observed by the Auditor's representative.
- Samples were collected in clean vessels provided by the assessor's primary analytical laboratory and unique sample identification (and other information relevant to the sample) was recorded on sample jars prior to them being placed in insulated containers for transport to the laboratory. The sample collection and storage practices were observed by the Auditor's representative.
- Chain of custody sheets were used to track transport and analysis of the collected samples.
- During the course of fieldworks, LRM collected quality control samples, including rinsate, trip blank and replicate (intra- and inter laboratory) samples. The rinsate and trip blank samples were intended to indicate if cross-contamination of samples had occurred. The replicate samples were intended to assess the precision of the sample collection, transport, storage and analysis process.
- The Auditor's independent assessment of the LRM QA/QC program (as provided in Table G) has identified some sampling rounds in which the QA/QC program did not meet the AS4482.1 requirements (primarily insufficient duplicate and/or split samples were collected for analysis). The Auditor has however reviewed not only individual sampling rounds, but has also considered the data as a whole in the context of the audit and considers that the QA/QC program undertaken by LRM is sufficient for the purposes of the audit. It is noted that in forming this opinion, the Auditor has also considered field observations made during a number of site visits conducted during the course of the audit.

Table G outlines the Auditor's consideration of the QC information provided as part of the LRM site assessment reports. Overall, the QA/QC programs implemented are considered to be acceptable for the purpose of the Audit.

5.7 Auditor Verification

In addition to the above, a groundwater verification (or check) sample was collected from well MW13 by the Auditor's representative during GME 7 undertaken by LRM in May 2014. The sample was sent to a NATA-accredited laboratory for analysis. The value of these samples is that they provide an additional level of quality control over and above that provided by the primary laboratory data.

A comparison of the primary sample (collected by LRM) and the verification sample collected by the Auditor's representative is shown in Table H. Chain of Custody documents and laboratory reports for the Auditor verification sample are included in Appendix G of this report.

The Auditor verification sample is not a duplicate of the LRM sample, but was collected from the same location. As such, a direct RPD comparison has not been made.

The results of the Auditor groundwater verification sample were generally consistent with those reported by LRM. It is noted that results for selected metals (including aluminium, iron and zinc) were reported at slightly higher concentrations in the LRM sample. It is noted however (as outlined in Section 6.7 below) that results for metals in round 7 were disregarded due to issues associated with field filtering. Given that all reported results were below the adopted groundwater assessment criteria, and that reported results were within the same order of magnitude for each

sample, the Auditor concluded that the sample results obtained by LRM could be relied upon for the purposes of the Audit.

Soil sampling (test pitting) works on 15 May 2014 and groundwater sampling works (round 8 in July 2014) were also observed by the auditor's representative on 15 May 2014.

6 Assessment of Nature and Extent of Contamination

6.1 Initial Soil Assessment (Alliance)

In April 2012, Alliance undertook a soil investigation comprising the installation of 50 soil bores (BH1 to BH49 and MW9) across the site to target potential sources of contamination. Soil bores extended to a maximum of 2.1mbgs, with the exception of 10 bores extended to a maximum of 11.6mbgs for the purposes of installing groundwater wells MW1 to MW9 and MW9A. With the exception of locations B28, B48 and B49 boreholes intercepted natural material; locations B28, B48 and B49 terminated in fill on cobbles.

Soil samples were collected using a hand auger and samples were analysed for a range of inorganic and organic parameters including:

- Metals;
- TRH & VOCs: MAH, oxygenated compounds, sulfonated compounds, fumigants, halogenated aliphatic and aromatic compounds and trihalomethanes;
- SVOCs: Phenolic compounds, PAHs, phthalates, nitrosamines, nitroaromatics and ketones, haloethers, chlorinated hydrocarbons, anilines and benzidines;
- OCPs, OPPs and PCBs; and
- pH, total and free cyanide, total phosphorous, total sulphur, nitrite and nitrate.

Elevated concentrations of metals, BaP and TRH fractions F2 and F3 were reported and a summary of the soil analytical results reported above adopted site criteria for the Audit (as per Table F1) by Alliance is presented in 6.1 below.

All reported exceedances were identified in fill with the exception of the following which were reported in natural soil:

- Lead concentrations of 804mg/kg at location B3 at 0.5m depth, exceeding the adopted Human Health IL for landuse settings Residential 'A' and Recreational/Open Space 'C';
- Vanadium concentrations of 156mg/kg at location MW7 at 8.0mbgs, exceeding the adopted Ecological IL for landuse settings Residential 'A', Residential 'B' and Recreational/Open Space 'C'. It is however noted that this exceedance was observed at a depth of 8.0mbgs, well below the maximum depth at which EILs are considered relevant.

The Auditor considered that the elevated lead concentrations reported in natural soil were likely to be associated with cross contamination with fill at this location, and recommended LRM undertaken additional soil sampling in the vicinity of Alliance bores B3 to confirm reported concentrations. LRM results from the samples targeting this location reported there to be no fill remaining in this location and lead within natural soil to be <LOR. As such, the Auditor does not consider this exceedance to be remaining on-site. It is noted that LRM have conservatively considered lead at B3 of 0.5mg/kg as an exceedance remaining on site and as such it was considered within the Coffey HRA. However, the Auditor considers that as the reported lead at this location from the Alliance results was likely to be within fill material/crushed rock removed during the demolition of the site as validation by LRM sampling at the same location did not replicate this result, the lead exceedance noted by LRM and Coffey's HRA has been disregarded and is not considered likely to remain.

pH concentrations in the range 5.8 to 9.9 units, outside of the adopted soil criteria range of 6 to 8 units, were also reported in soil. pH concentrations in soil were considered to be naturally occurring as discussed in Section 6.3 below.

No formal report was completed for the Alliance Phase 2 intrusive soil and groundwater works undertaken, however results the data is provided in Appendix B of LRM's (September 2014) Audit ESA Report.

Table 6.1 Soil Contamination Status – Results Exceeding Investigation Levels, Initial Investigation by Alliance, April 2012 (mg/kg)

	Beneficial uses potentially compromised by an exceedance of Audit criteria *(Shaded Cell)*								
Analyte	**Reported Concentration Range (mg/kg) (location/s exceeding)**	**Residential A (low density)[1]**		**Residential B (high density)[2]**		**Recreational/Open space C[3]**		**Commercial/Industrial D[4]**	
		EILs/ESLs	**Human Health – HILs/HSLs**	**EILs/ESLs**	**Human Health – HILs/HSLs**	**EILs/ESLs**	**Human Health – HILs/HSLs**	**EILs/ESLs**	**Human Health – HILs/HSLs**
pH	5.8-9.9	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]
Barium	<10 - 4,480 (B3-0.2, B18-0.4, B20-0.4)	500[9]	15,000[10]	500[9]	15,000[10]	500[9]	15,000[10]	2,000[9]	190,000[11]
Lead	<5 - 978 (B3-0.2, B3-0.5)	1,100	300	1,100	1,200	1,100	600	1,800	1,500
Manganese	<5-964 (B23-0.4, B26-0.5, B32-0.4, B33-0.6, B34-0.3, B39-0.5, B41-0.5)	500[7]	3,800	500[7]	14,000	500[7]	19,000	NE	60,000
Vanadium	<5 – 156 (MW7-8.0)	130[9]	390[10]	130[9]	390[10]	130[9]	390[10]	130[9]	5,100[11]
Zinc	<5 – 1,030 (B3-0.2, B20-0.4)	660[5]	7,400	660[5]	60,000	660[5]	30,000	1,000[5]	400,000
Benzo(a)pyrene	<0.5 – 9.7 (B1-0.3, B4-0.3, B5-1.0, B6-1.0, B10-0.4, B23-0.4, B24-0.3, B28-0.3, B40-0.5)	0.7	NE	0.7	NE	0.7	NE	1.4	NE
Benzo(a)pyrene TEQ	<0.5 – 14 (B4-0.3, B5-1.0, B6-1.0, B10-0.4, B23-0.4, B24-0.3, B28-0.3)	NE	3	NE	4	NE	3	NE	40
TRH >10-C16 minus naphthalene (F2)[6,8]	<50-220 (B37-0.7)	120	110/3,300	120	110/4,200	120	NL/3,800	170	NL/20,000
TRH >C16-C34 (F3)	<100-3,560 (B1-0.3, B28-0.3, B35-0.25, B37-0.7, B43-0.1, B49-0.1)	300	-/4,500	300	-/5,800	300	-/5,300	1,700	-/27,000

Notes:

1: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with garden/accessible soil (A)– Unless otherwise specified.

2: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with minimal opportunities for soil access (B)– Unless otherwise specified.

3: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for recreational/open space, HIL/HSL C– Unless otherwise specified.

4: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for commercial/industrial, HIL/HSLfor commercial/industrial (D)– Unless otherwise specified.

5: Site-specific value derived based on the recommendations of NEPC (2013).

6: NEPM Schedule B(1) (NEPC 2013). Do not subtract BTEX or naphthalene prior to comparison of TRH C6-C10 or >C10-C16 results with management limits.

7: ANZECC B levels

8: Do not subtract naphthalene prior to comparison of TRH >C10-C16 results with ESL.

9: CCME (2007) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (Agricultural criteria adopted in the in absence of NEPM EILs and Residential and Commercial/Industrial levels adopted in the in absence of NEPM HILs).

10: US EPA Regional Screening Levels May 2014 (Residential Use). For direct contact exposure pathways only.

11: US EPA Regional Screening Levels May 2014 (Industrial Use).For direct contact exposure pathways only.

HIL: Health Investigation Level

HSL: Health Screening Level. HSL for vapour intrusion quoted first followed by HSL for direct contact, "-" indicates analyte is not volatile, vapour intrusion HSL for 0m - <1m in sand adopted for HSL-A, HSL-B and HSL-D.

EIL: Ecological Investigation Level; ESL: Ecological Screening Level, ESL for coarse grained soil adopted; NE: Not Established; NL: Not Limiting. Denotes that a soil vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.

All values in mg/kg unless otherwise specified.

6.2 Remediation and Soil Validation Works

Site demolition works occurred between November 2013 and March 2014. During this time all on-site infrastructure was demolished and removed from site.

Asbestos

Upon vacation of the building, a Division 6 Asbestos and Hazmat Assessment was conducted by Azcor Consultants Pty Ltd (September 2013). The presence of asbestos containing materials (friable and non-friable) within the building materials was confirmed, as specified within the report. Upon completion of all demolition works at the site, Azcor provided asbestos clearance certificates for all friable and non-friable asbestos identified during the Division 6 assessment.

Some additional asbestos containing material (non-friable flat and corrugated fibro cement sheet) was visible across the site within the bituminous crushed rock layer and across the surface fill of the site. The crushed rock layer was hand-picked of ACM where practicable by a licensed removalist (Elite Environmental Solutions Pty Ltd). Abated crushed rock material was disposed off-site as construction debris and the crushed rock that was not able to be practicably abated was disposed of as asbestos containing waste.

A clearance certificate for the abatement works by Elite, confirming the removal of visible asbestos containing material from across the site's surface was issued by LRM in August 2014.

All asbestos clearance certificates, and waste disposal dockets for asbestos and the Azcor (September 2013) *Division 6 Asbestos and Hazmat Assessment* are provided in Appendix J of the LRM (September 20140 ESA report.

Other Remedial Activities

Upon demolition of the site, soil remediation/validation works conducted at the site (with the exception of asbestos related works as discussed above) were as follows:

- The removal and off-site disposal of crushed rock fill containing bituminous material that was located immediately beneath the concrete slab following the demolition of buildings and removal of the concrete slab;
- The removal and validation of two USTs associated with the boiler house in the northern part of the site: Tanks were 10,000L in size each and once removed were found to be in good condition, with no evidence of holes or corrosion. Contents found within the tanks was a dried slurry of sand and cement that had a mild diesel odour. The tank sands did not exhibit any visual or olfactory evidence of contaminantion. Five validation soil samples were collected from the walls and floor of the UST excavation with validation samples analysed for TRH, BTEX, lead and VCHs; and
- The removal and validation of the TIT present in the north-western part of the site: One validation sample was collected from the floor of the TIT excavation and analysed for a wide range of potential contaminates of concern including TRH, BTEX, phenols, metals, PAHs, OCPs, phthalates, halogenated aliphatics and aromatics including VCHs.

Validation samples collected from the TIT and UST excavation reported non-detectable to low concentrations below the adopted soil assessment criteria. It is noted that VCHs not were detected in the soil material excavated from the tank, nor within tank validation samples (i.e. in the vicinity of MW9A and MW9AR).

In addition to the above, on-site drainage and sewer systems (as noted on Figure 13) were also excavated and removed from site in February 2014 by the demolition contractor for the site.

A total of 27,784kg of excavated soil was disposed of off-site as EPA Category C Contaminated Soil and 2000m^3 of clean fill was imported to backfill excavations (primarily within the tank pit). The soil removal and validation works are detailed in Sections 6 and 10 of the LRM (September 2014) ESA Report, provided in Appendix D of this report. The

tank excavation and validation works are detailed within the LRM (Underground Storage Tank Soil Validation Assessment Report (March 2014) provided within Appendix B of the LRM (September 2014) Audit ESA report. Waste disposal documentation and tank destruction certificates are provided in Appendix I of the LRM (September 2014) Audit ESA report

6.3 Further Investigation Works

Between February to August 2014, LRM undertook additional soil assessment works comprising the installation of 45 testpits (TP01 to TP45) and 4 soil bores (TP12-BH, TP14-BH, TP16-BH, TP31-BH to vertically delineate impact reported during test pitting works). The objective of the soil works was to:

- Confirm the contamination status of fill and natural soils in areas previously investigated by Alliance;
- Ensure that all areas of the site were covered by a grid;
- Target potential sources of contamination at the site that had not been investigated by Alliance;
- Assess the presence of perched groundwater.

Testpits extended to a maximum of 2.0mbgs and all testpits intercepted natural soils, including testpits TP22, TP15 and TP16 installed adjacent to Alliance bores B28, B48 and B49 (where natural soil had not previously been encountered). Soil samples were also collected during the installation of groundwater monitoring wells MW10 to MW13, MW24 and SW1 to SW15; and one additional grab sample (G1) was collected adjacent to well MW9.

Soil samples were analysed for a wide range of inorganic and organic parameters depending on historical use of the areas of the site sampled, and the analytical schedule for soil samples is summarised in Table D.

Details of the soil sampling and analysis works undertaken by LRM are provided in Sections 8 and 10 of LRM's (August 2014) Audit ESA report.

Elevated concentrations of barium, zinc, vanadium, BaP, total PAHs and TRH fraction F3 were reported above the adopted Ecological ILs, with concentrations of BaP TEQ at 7 locations (B4-0.3, B5-1.0, B6-1.0, B10-0.4, B23-0.4, B24-0.3, B28-0.3) reported above the adopted Human Health ILs.

pH concentrations in the range 4.8 to 9.5 units, outside of the adopted soil criteria range of 6 to 8 units, were also reported in soil. pH concentrations in soil were considered to be naturally occurring as discussed in Section 6.4 below.

6.4 Final Soil Condition

A summary of the soil analytical results reported above adopted site criteria is presented in Table 6.2 below, which summarises the final soil condition. Figures 7 and 8 of this report shows remnant concentrations in soils at the site at the completion of remedial works. Table A2 (attached) presents tabulated results for all remnant soil concentrations. It is noted that remnant soil concentrations show both Alliance and LRM results (where considered to be representative of soil conditions remaining on-site).

Table 6.2 Soil Contamination Status – Results Exceeding Investigation Levels following Remediation (mg/kg)

	Beneficial uses potentially compromised by an exceedance of Audit criteria *(Shaded Cell)*								
Analyte	**Reported Concentration Range (mg/kg)**	**Residential A (low density)[1]**		**Residential B (high density)[2]**		**Recreational/ Open space C[3]**		**Commercial/Industrial D[4]**	
		EILs/ESLs	**Human Health – HILs/HSLs**	**EILs/ESLs**	**Human Health – HILs/HSLs**	**EILs/ESLs**	**Human Health – HILs/HSLs**	**EILs/ESLs**	**Human Health – HILs/HSLs**
pH	4.8-9.9	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]	6-8[7]
Barium	<10-4,480 (B3-0.2, B18-0.4, B20-0.4)	500[8]	15,000[9]	500[8]	15,000[9]	500[8]	15,000[9]	2,000[8]	190,000[10]
Manganese	<5-1,200 (B23-0.4, B26-0.5, B32-0.4, B33-0.6, B34-0.3, B39-0.5, B41-0.5, TP38-0.5, TP28-0.4, TP33-0.2, TP10-0.5)	500[7]	3,800	500[7]	14,000	500[7]	19,000	NE	60,000
Zinc	<5 – 1,030 (B3-0.2, B20-0.4)	660[5]	7,400	660[5]	60,000	660[5]	30,000	1,000[5]	400,000
Vanadium	<5-230 (TP42-0.3)	130[8]	390[9]	130[8]	390[9]	130[8]	390[9]	130[8]	5,100[10]
Benzo(a)pyrene	<0.5 – 9.7 (B1-0.3, B4-0.3, B5-1.0, B6-1.0, B10-0.4, B23-0.4, B24-0.3, B28-0.3, B40-0.5, TP14-0.2, TP14-0.6, TP8-0.2, TP08-0.2, TP12-BH-1.2, TP14-0.2, TP14-0.6, TP15-0.2, TP16-0.4, TP28-0.4, TP30-0.2)	0.7	NE	0.7	NE	0.7	NE	1.4	4 NE
Benzo(a)pyrene TEQ	<0.5 - 14 (B4-0.3, B5-1.0, B6-1.0, B10-0.4, B23-0.4, B24-0.3, B28-0.3, TP12-BH-1.2, TP14-0.2, TP14-0.6, TP8-0.2)	NE	3	NE	4	NE	3	NE	40
TRH >C16-C34 (F3)	<100 – 3,560 (B1-0.3, B28-0.3, B35-0.25, B37-0.7, B43-0.1, B49-0.1, TP31-0.2)	300	-/4,500	300	-/5,800	300	-/5,300	1,700	-/27,000

Notes:

1: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with garden/accessible soil (A)– Unless otherwise specified.

2: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with minimal opportunities for soil access (B)– Unless otherwise specified.

3: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for recreational/open space, HIL/HSL C– Unless otherwise specified.

4: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for commercial/industrial, HIL/HSLfor commercial/industrial (D)– Unless otherwise specified.

5: Site-specific value derived based on the recommendations of NEPC (2013).

6: NEPM Schedule B(1) (NEPC 2013). Do not subtract BTEX or naphthalene prior to comparison of TRH C6-C10 or >C10-C16 results with management limits.

7: ANZECC B levels

8: CCME (2007) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (Agricultural criteria adopted in the in absence of NEPM EILs and Residential and Commercial/Industrial levels adopted in the in absence of NEPM HILs).

9: US EPA Regional Screening Levels May 2014 (Residential Use). For direct contact exposure pathways only.

10: US EPA Regional Screening Levels May 2014 (Industrial Use).For direct contact exposure pathways only.

HIL: Health Investigation Level

HSL: Health Screening Level. HSL for vapour intrusion quoted first followed by HSL for direct contact, "-" indicates analyte is not volatile, vapour intrusion HSL for 0m - <1m in sand adopted for HSL-A, HSL-B and HSL-D.

EIL: Ecological Investigation Level; ESL: Ecological Screening Level, ESL for coarse grained soil adopted; NE: Not Established; NL: Not Limiting. Denotes that a soil vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.

All values in mg/kg unless otherwise specified.

The results provided in Table 6.2 above represent post remediation soil conditions at the site and indicate the following with respect to contaminant concentrations:

- Concentrations of barium, managanese, zinc, vanadium, BaP and TRH fraction F3 exceeded the adopted EILs for landuse settings Residential 'A', Residential 'B', Recreational/Open Space 'C', with concentrations of vanadium and zinc also exceeding the adopted EILs for Commercial/Industrial 'D'. Elevated concentrations were generally reported in the fill with the exception of BaP at Alliance sample B6 at 1.0m and BaP at LRM sample location TP12-BH-1.2m. Alliance sample B6 was assessed by LRM location TP14, which confirmed that elevated concentrations of BaP were present in fill in this area (at 0.2 and 0.6mbgs) however BaP was reported at less than the LOR in natural soil (at 1.0 and 1.4mbgs) at this location. Sample TP12-BH-1.2m in natural is not considered relevant for the purposes of the audit as the delineating samples below (at 1.5mbgs and 1.8mbgs) reported BaP <LOR. All exceedances were delineated in the underlying natural soil, with the exception of BaP in TP15-0.2 (fill), TP28-0.4 (fill) and TP30-0.2 (fill). These undelineated exceedances were not considered relevant as they were only marginal exceedances of BaP consistent with the presence of PAH impacted fill across the site.
- Concentrations of BaP TEQ exceeded the adopted HILs for landuse settings Residential 'A', Residential 'B' and Recreational/Open Space 'C' at 11 locations in soil at the site. At 9 of the 11 locations, elevated BaP TEQ concentrations were reported in fill with underlying natural soils reporting concentrations of BaP TEQ below the LOR or the adopted soil assessment criteria. The two undelineated samples were B6 and TP12-BH12-1.2 (as discussed above). Concentrations of BaP TEQ were all below the adopted HILs for Commercial/Industrial 'D'. It is noted that LRM's ESA reported BaP TEQ exceedances at B13 and B19. PAHs at this sample location were all reported <LOR, however the LORs was raised and BaP TEQ was calculated by LRM using concentrations equal to the LOR, resulting in exceedances. The Auditor has disregarded these exceedances as being overly conservative given PAHs within the immediate area surrounding these exceedances were all reported <LOR (with no raised LORs).
- pH concentrations were in the range 4.8.8 to 9.9 units, outside of the adopted soil criteria range of 6 to 8 units. pH concentration in the ranges of 4.8-9.9 units and 5.3-8.5 units were reported in fill and natural soil respectively and pH concentrations in fill at the upper and lower end of the reported range (i.e. below 5 units and above 9 units) were reported away from the main carpet manufacturing areas i.e. locations B34 and TP9 (in the vicinity of the main north-south drain in the eastern part of the site), TP23 (in the central western part of the site), TP33 (located in the former Bulk Store 2 area), B27 (to the west of Tufting Plant 2) and B41 (located in the northwest corner of the site). The average pH in fill and natural soil was 7.9 units and 7.5 units respectively, within the adopted soil criteria range. Given this, pH concentrations in soil were considered to be naturally occurring and not site derived pollution.

With respect to the elevated concentrations of heavy metals (barium, zinc, manganese and vanadium), PAHs and heavy end TRHs, the Auditor considers that these are typical of inner urban area fill soils and impacts are localised as is reflected in the heterogeneous concentration distribution that was found. Where contaminant concentrations have been reported above HIL 'B' and HIL 'C' (i.e. BaP TEQ) they have been considered within Coffey (2014a) On-site Health Risk Assessment completed by Ms Karen Teague, the Auditor's EPA approved expert support for "assessment of exposure pathways and risk". The methodology and results of the On-site HRA is summarised in Section 6.14 below. It is noted that lead was considered as an exceedance in the On-site HRA, however as noted above the Auditor does not consider this exceedance to remain at the site. As such, conclusions drawn in regards to risks associated with lead are not considered relevant.

6.5 Aesthetic Impacts

The soil investigation works undertaken by Alliance and LRM identified the presence of inert wastes including crushed rock, construction debris, brick and terracotta fragments, ballast, timber and steel in fill at the site.

Alliance also reported the presence of grey or green coloured soil with a septic odour at locations B19 (in natural soil between 0.85m and 1.1mbgs) and B20 (in fill between 0.45m and 0.7mbgs and in natural between 1.0m and 1.2mbgs). These bores were installed to target the former print line area in the south-west corner of the site and it is noted that the presence of staining and septic odours was not confirmed at LRM location TP19.

The Audit report outcome will require 0.5m of 'clean fill' in all exposed soil areas and this will remove any aesthetic impacts that may still be present at the site.

6.6 Scope of Groundwater Investigation Works

In consideration of Section 13 and Figure 2 of the Guidelines for Issue of Certificates and Statements of Environmental Audit (EPA, February 2014), the Auditor requested that a physical groundwater assessment be undertaken given the following:

- The historical use of the site for carpet manufacturing; and
- The identification of groundwater pollution at sites in the vicinity of the Audit site.

Groundwater conditions for the site were the subject of an Auditor Determined CUTEP which is provided in Appendix E of this report.

The groundwater investigation included the installation a total of 40 on-site groundwater monitoring wells to characterise the perched and deep aquifer at the site comprising:

- Perched (Quaternary) aquifer: On-site Well MW9A (installed by Alliance prior to the commencement of the Audit) and on-site wells SW1 to SW15 (installed by LRM over the course of the Audit);
- Deep (Brighton Group) aquifer: On-site wells MW1 to MW4 and MW7 to MW9, and off-site wells MW5 and MW6 (installed by Alliance prior to the commencement of the Audit) and on-site wells MW10 to MW24 (installed by LRM over the course of the Audit);

The location and installation depth of groundwater wells is summarised in Tables B1 and B2 (attached).

One round of groundwater monitoring was undertaker by Alliance prior to the commencement of the Audit and six and nine rounds of groundwater monitoring were undertaken by LRM over the course of the Audit for the perched and deep aquifer wells respectively. Groundwater samples from both the perched and deep aquifers were analysed for the following:

- Metals;
- TRH & VOCs: MAH, oxygenated compounds, sulfonated compounds, fumigants, halogenated aliphatic and aromatic compounds and trihalomethanes;
- SVOCs: Phenolic compounds, PAHs, phthalates, nitrosamines, nitroaromatics and ketones, haloethers, chlorinated hydrocarbons, acrylates, anilines and benzidines;
- OCPs, OPPs and PCBs;
- Formaldehyde;
- pH, TDS, total cyanide, fluoride;
- Sulphate, chloride, ammonia, nitrite, nitrate, phosphorus, alkalinity, major anions & cations.

Groundwater sample from deep aquifer wells MW4 and MW7 (located on the southern site boundary and in the centre of the site respectively) were also analysed for acetaldehyde.

It is noted that wells SW03, SW04, SW11, SW12 and SW14 were reported to be dry in all groundwater gauging rounds and were therefore unable to be sampled.

No light or dense non-aqueous phase liquid (NAPL) was identified during any gauging or sampling round.

The groundwater monitoring well network is considered to be adequate to assess the lateral and vertical extent of groundwater pollution within the site. Additionally, sufficient data has been provided to enable confident appraisal of groundwater flow directions and to appraise aquifer hydraulic characteristics for estimation of groundwater flow and contaminant migration rates.

Groundwater investigation works are summarized in Table 6.3 below.

Table 6.3 Summary of Groundwater Investigation Works

GME No.	Date of field investigations (Assessor)	Wells gauged & sampled	Sampling method
1.	23 & 24 April 2012 (Alliance)	Shallow aquifer well MW9A. Deep aquifer wells MW1 – MW9.	Low- flow (micropurge) sampling
2.	4 September 2013 (LRM)	Shallow aquifer well MW9A. Deep aquifer wells MW1 – MW5 & MW7 – MW9.	Low- flow (micropurge) sampling
3.	20 March 2014 (LRM)	Shallow aquifer well MW9A. Deep aquifer well MW9.	Low- flow (micropurge) sampling
4.	27 March 2014 (LRM)	Deep aquifer wells MW2 & MW8.	Low- flow (micropurge) sampling
5.	11 April 2014 (LRM)	Shallow aquifer well MW9A. Deep aquifer wells MW8 – MW13.	Low- flow (micropurge) sampling
6.	24 April 2014 (LRM)	Deep aquifer well MW13.	Low- flow (micropurge) sampling
7.	20-22 May and 4 June 2014 (LRM)	Shallow aquifer well MW9AR. Deep aquifer wells MW1 – MW23.	Low- flow (micropurge) sampling
8.	1-3 July 2014 (LRM)	Shallow aquifer wells MW9AR, SW01, SW02, SW05, SW06, SW08, SW13 & SW15. Deep aquifer wells MW1 – MW24.	Low- flow (micropurge) sampling
9.	16 July 2014 (LRM)	Deep aquifer wells MW9 & MW13.	Passive diffusion samplers (PDS). PDS bags were deployed at 9m, 9.75m and 11m depth in well MW9 & 9.9m, 10.65m and 11.35m in well MW13.
10.	4, 6, 12 & 13 August 2014 (LRM)	Shallow aquifer wells MW9AR, SW01, SW02, SW05, SW06 - SW10, SW13 & SW15. Deep aquifer wells MW1 – MW3 & MW8 – MW24.	Low- flow (micropurge) sampling

6.7 Groundwater Contamination – Perched Aquifer

This section provides a description of the condition of the perched groundwater aquifer at the site. The perched aquifer was encountered between 0.47 to 1.71mbgs. TDS concentrations ranged between 200 – 3,300mg/L.

Table A3 presents tabulated groundwater results reported by Alliance and LRM during the ten rounds of groundwater monitoring. Table 6.4 (below) summarises the results reported in all rounds. It is noted that the metals results from Round 7 (LRM, 20-22 May and 4 June 2014) have been discounted as anomalous iron and aluminium results were reported and subsequent investigations undertaken by the Auditor indicated that metals results from this round may have been impacted due to field filtering practices. Metals results for Round 7 were therefore considered to be unrepresentative of the condition of the aquifer and were not considered further as part of the Audit.

A summary of the contamination status of groundwater at the site is presented on Figures 16 and 17. A copy of LRM's Audit ESA report is presented in Appendix D of this report.

To determine whether concentrations of pH, metals, nitrate, TRH, TCE and PCE are likely to be naturally occurring, associated with the regional groundwater quality or sourced from the site, a review of the distribution of impacts across the site alongside data available in surrounding audit sites was undertaken. The results of this review are presented in Table 6.4 and discussed further below.

Table 6.4 Summary of Groundwater Results – Perched Aquifer

Contaminant	Concentration Range (µg/L)		Guideline Values (µg/L)						
	On-site Range	9-41 Charlton Avenue	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A)[16]
Analytes considered by the Auditor to be natural in nature and hence not pollution									
pH	5.2-8.1	5.43-12.4	NE	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	>5.5	NE
Aluminium	980-1,400	NA	0.5[10]	200#	5,000	5,000	200#	NE	NE
Iron	19-1,500	NA	300[10]	300#	200	NE	300#	NE	NE
Analytes considered by the Auditor to be regional in nature or from an upgradient source									
Arsenic	2-5	<1-24	3[7]	10	100	500	100	NE	NE
Copper	5-24	<1-27	1.3	2,000/1,000#	200	400	20,000/1,000#	NE	NE
Manganese	<5-820	<1-1,820	80[10]	500/100#	200	NE	5,000/100#	NE	NE
Molybdenum	17-41	NA	23[10]	50	10	150	50	NE	NE
Nickel	5-180	2-107	70	20	1,000	1,000	200	NE	NE
Zinc	3-79	<5-16,100	5[7]	3,000	20	20,000	3,000#	NE	NE
Nitrate (as N)	<1-190,000	<10-2,050	7,200[15]	11,286	5,000*	90,293	112,866	NE	NE
Analytes considered by the Auditor to be sourced from the site									
TRH C6-C10	30-540	<20-340	NE	300[19]	NE	300[19]	300[19]	NE	1,000
TRH >C10-C40	<50-2,100	<100-42,900	600[6]	600[6]	600[6]	600[6]	600[6]	NE	NE
Trichloroethene	<0.5-74	<0.05-<5	330[10]	4.9[9]	NE	4.9[9]	4.9[9]	NE	NE
Tetrachloroethene	<0.5-320	<0.05-<5	70[10]	50	NE	50[18]	50	NE	NE

Notes:

1: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2: ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.

5: Australian Standard AS2159-2009 Piling Design and Installation.
6: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7: SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10. # denotes aesthetic criteria. Unless otherwise specified.
9: US EPA (May 2014) Regional Screening Levels for Tap Water (guideline for cobalt, naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels for marine waters (95%) or freshwater guideline (95%) adopted in the absence of a marine guideline.
11: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12: US EPA (2003) Region 5 Ecological Screening Levels.
13: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14: ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15: NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17: ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18: NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

All values in µg/L.
NE: Not Established.
NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario
Groundwater analytical results from Round 6 not considered.

6.7.1 Metals

Concentrations of arsenic, copper, nickel and zinc were reported at similar concentrations in all perched wells sampled, including wells SW1, SW2 and SW8 located along the northern site boundary and considered to be representative of perched groundwater entering the site. Similar or higher concentrations of these metals were also reported in the perched aquifer at 9-41 Charlton Avenue. Elevated concentrations of manganese were reported in wells MW9A/MW9AR and SW13 only however elevated concentrations of manganese were also reported in the perched aquifer at 9-41 Charlton Avenue. It is noted that the Audit for 9-41 Charlton Avenue concluded that elevated concentrations of arsenic, copper, manganese, nickel and zinc within the perched aquifer were representative of regional or background water quality.

Elevated concentrations of aluminium were reported in the 2 perched aquifer wells sampled (wells MW9A/MW9AR and northern boundary well SW8), elevated concentrations of molybdenum were reported in 2 of the 3 perched aquifer wells sampled (MW9A and northern boundary well SW8) and elevated concentrations of iron were reported in 4 of the 8 wells sampled (MW9A/MW9AR, northern boundary well SW1, SW13 and SW15). The Auditor considers that concentrations of these metals are typical of background levels found in urban environments.

In addition to the above, extent and distribution of these contaminants within soils across the site further supports the conclusion that these metals are unlikely to be a result of site derived pollution.

Therefore, based on the available evidence, the Auditor has concluded that concentrations of metals are likely to be regionally occurring and/or representative of natural conditions within the aquifer, and are not considered to be site derived pollution.

6.7.2 Nitrate

Elevated concentrations of nitrate (as N) concentrations were reported in 5 of the 8 perched aquifer wells sampled. The highest concentrations were reported in wells SW6 and SW15, located in the vicinity of the north-south sewer main, and elevated concentrations were reported in northern boundary well SW8. Concentrations of nitrate (as N) and exceeded the adopted criteria for the protection of the beneficial uses of Maintenance of Ecosystems, Potable Water Supply, Agriculture, Parks and Gardens and Primary Contact Recreation.

Elevated nitrate (as N) concentrations were reported in the perched aquifer at 9-41 Charlton Avenue, and the distribution of nitrate (as N) concentrations in perched groundwater at the site suggests a diffuse, anthropogenic source or potentially from regional sewage networks.

Given the above, concentrations of nitrate in groundwater are not considered to be site derived pollution.

6.7.3 pH

Slightly acidic pH concentrations in the range 5.2-8.1 units were reported in the perched aquifer, outside of the adopted groundwater assessment criteria range of 6.5-8.5 units and below the adopted assessment criteria for the protection of the beneficial use of Buildings and Structures.

Based on the following evidence, the Auditor considers that the acidic pH in perched groundwater at the current Audit site is likely to be naturally occurring:

- pH concentration in the ranges of 4.8-9.9 units and 5.3-8.5 units were reported in fill and natural soil respectively. pH concentrations in fill at the upper and lower end of the reported range (i.e. below 5 units and above 9 units) were reported away from the main carpet manufacturing areas. The average pH in fill and natural soil was 7.9 units and 7.5 units respectively, within the adopted soil criteria range
- Acidic groundwater was reported in perched groundwater at 9-41 Charlton Avenue, Cheltenham.

- pH concentrations reported in groundwater are typical of background concentrations associated with Brighton Group sediments.

6.7.4 Chlorinated Hydrocarbons

Elevated concentrations of PCE and TCE have been reported in shallow wells MW9A and/or replacement well MW9AR. All other perched wells sampled reported concentrations of PCE and TCE less than the LOR with the exception of well SW2, located immediately to the north of wells MW9A/MW9AR which reported low detectable TCE concentrations of 0.5 to 1µg/L, below the adopted groundwater assessment criteria. Elevated concentrations of PCE and TCE in well MW9A/MW9AR were delineated to the north, south-west, east and west by wells SW2, SW13, SW8 and SW1 respectively.

Further discussion of the VHC impact within the shallow aquifer is presented in Section 6.8.6 below.

6.7.5 TRH

Concentrations of TRH $C_6 – C_{10}$ of 540µg/L, exceeding the adopted criteria of 300µg/L for the protection of Potable Water Supply, Stock Watering and Primary Contact were reported in well MW9AR in the final round of sampling in August 2014, with low detectable concentrations (in the range <20 to 130µg/L) reported in the preceding sampling rounds and in well MW9A. Concentrations of TRH $C_6 – C_{10}$ in these wells were considered to be reflective of the volatile chlorinated hydrocarbon (PCE and TCE) impacts also reported.

Elevated concentrations of TRH $C_{10} – C_{40}$ (max. of 2,100µg/L), exceeding the adopted criteria of 600µg/L for the protection of Maintenance of Ecosystems, Potable Water Supply, Agriculture, Parks and Gardens, Stock Watering and Primary Contact Recreation were reported in wells SW8 and SW15 in the August 2014 sampling round. Lower detectable concentrations of TRH $C_{10} – C_{40}$, below the adopted groundwater assessment criteria were reported in preceding sampling rounds. Concentrations of TRH $C_{10} – C_{40}$ less than the LOR were reported in all other wells sampled, with elevated concentrations in well SW8 and SW15 delineated to the south by wells SW5 and SW6.

The TRH $C_{10} – C_{40}$ contamination is considered likely to be associated with presence of the USTs, formerly located adjacent to the former boiler house. As noted above however, TRH $C_{10} – C_{40}$ impacts were also reported at 18-22 Hamlet Street.

6.8 Groundwater Contamination – Deep Aquifer

This section provides a description of the condition of the deep groundwater aquifer at the site. The deep aquifer was encountered between approximately 7 to 10mbgs. TDS concentrations ranged between 220 – 4,100mg/L.

Table A3 presents tabulated groundwater results reported by Alliance and LRM during the ten rounds of groundwater monitoring. Table 6.5 (below) summarises the results reported in all rounds. It is noted that the metals results from Round 7 (LRM, 20-22 May and 4 June 2014) have been discounted as anomalous iron and aluminium results were reported (likely to be associated with issues with field filtering during that sampling round), that were considered to be unrepresentative of the condition of the aquifer. A summary of the contamination status of the deep aquifer (VCHs) is presented on Figure 18. A copy of LRM's Audit ESA report is presented in Appendix D of this report.

To determine whether concentrations of pH, metals, nitrate, nitrite, fluoride and other organics (including chlorinated hydrocarbons) are likely to be naturally occurring, associated with the regional groundwater quality or sourced from the site, a review of the distribution of impacts across the site alongside data available in surrounding audit sites was undertaken. The results of this review are presented in Table 6.5 and discussed further below.

Table 6.5 Summary of Groundwater Results – Deep Aquifer

Contaminant	Concentration Range (µg/L)				Guideline Values (µg/L)						
	On-site Range	9-41 Charlton Avenue (downgradient)	10/12 Phillip Street (upgradient)	18-22 Hamlet Street (upgradient)	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A)[16]
Analytes considered by the Auditor to be natural in nature and hence not pollution											
pH	4.7-7.4	5.04-6.55	NA	5.14-7.68	NE	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	>5.5	NE
Aluminium	<50-180	NA	NA	NA	0.5[10]	200#	5,000	5,000	200#	NE	NE
Iron	<50-2,800	NA	<50-110	<50-30,800	300[10]	300#	200	NE	300#	NE	NE
Selenium	<1-21	NA	NA	NA	3[10]	10	20	20	100	NE	NE
Analytes considered by the Auditor to be regional in nature or from an upgradient source											
Arsenic	1-5	<1-1	<1-4	<1-305	3[7]	10	100	500	100	NE	NE
Total chromium	<1-39	<1-2	<1-3	<1-20	5[7]	50	100	1,000	500	NE	NE
Cobalt	<1-15	<1-5	NA	<1-279	1	60[9]	50	1,000	60[9]	NE	NE
Copper	<1-8	<1-11	2-65	<1-71	1.3	2,000/1,000#	200	400	20,000/1,000#	NE	NE
Lead	<1-15	<1-2	<1	<1-44	4.4	10	2,000	100	100	NE	NE
Manganese	<5-290	<1-118	NA	<1-1,190	80[10]	500/100#	200	NE	5,000/100#	NE	NE
Nickel	5-190	5-119	3-75	<1-134	70	20	1,000	1,000	200	NE	NE
Zinc	3-240	16-221	8-90	<5-554	5[7]	3,000	20	20,000	3,000#	NE	NE
Nitrate (as N)	10-55,000	<10-3,990	NA	<10-116,000	7,200[15]	11,286	5,000*	90,293	112,866	NE	NE
Nitrite (as N)	<10-1,490	<10-240	NA	<10-1,310	60[13]	912	3,040[13]	9,119	9,119	NE	NE
Fluoride	200-1,100	<100-800	NA	<100-1,300	NE	1,500	1,000	2,000	15,000	NE	NE

Contaminant	Concentration Range (µg/L)				Guideline Values (µg/L)						
	On-site Range	9-41 Charlton Avenue (downgradient)	10/12 Phillip Street (upgradient)	18-22 Hamlet Street (upgradient)	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A)[16]
Analytes considered by the Auditor to be sourced from the site (and/co-sourced)											
Trichloroethene	<0.01-20.5	<0.05-<5	<0.05-0.38	<5-423,000	330[10]	4.9[9]	NE	4.9[9]	4.9[9]	NE	NE
1,2 Dichloroethane	<0.01-5	<0.1-<5	<0.1	<1-2,930	1,900[10]	3	NE	3	3	NE	NE
1,1 Dichloroethane	<0.1-1,500	<0.1-<5	<0.1	<5-622	250[10]	27[9]	NE	27[9]	27[9]	NE	NE
1,1 Dichloroethene	0.01-280	<0.1-<5	<0.1	<5-2,720	700[10]	30	NE	30[18]	30	NE	NE
Vinyl Chloride	<0.03-4	<0.5-<50	<0.5	<5-440	930[12]	0.3	NE	0.3[18]	0.3	NE	NE

Notes:
1: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2: ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5: Australian Standard AS2159-2009 Piling Design and Installation.
6: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7: SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10. # denotes aesthetic criteria. Unless otherwise specified.
9: US EPA (May 2014) Regional Screening Levels for Tap Water (guideline for cobalt, naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels for marine waters (95%) or freshwater guideline (95%) adopted in the absence of a marine guideline.
11: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12: US EPA (2003) Region 5 Ecological Screening Levels.
13: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14: ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15: NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17: ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18: NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).
All values in µg/L.
NE: Not Established.
NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.
Groundwater analytical results from Round 6 not considered

6.8.1 Metals

Elevated concentrations of arsenic, cobalt, chromium, copper, iron, nickel, selenium and zinc were reported in northern boundary wells (i.e. MW8, MW10, MW11, MW12 and/or MW21) and concentrations of iron, arsenic, total chromium, cobalt, copper, nickel, manganese, lead and zinc were reported at similar or higher concentrations in the deep aquifer at 9-41 Charlton Avenue, 18-22 Hamlet Street and/or 10/12 Phillip Street. It is noted that the Audits for 9-41 Charlton Avenue and 18-22 Hamlet Street concluded that concentrations of metals were naturally elevated and/or indicative of regional conditions, with concentrations at 18-22 Hamlet Street potentially further elevated by site operations. The Audit Report for 18-22 Hamlet Street also notes that elevated copper, nickel and zinc concentrations were reported for groundwater in the vicinity of the Hamlet Street Audit site.

In addition to the above, extent and distribution of these contaminants within soils across the site further supports the conclusion that these metals are unlikely to be a result of site derived pollution. The exception is lead and zinc with elevated concentrations of lead (max. 978mg/kg) reported in fill and natural soil at location B3 (located in the northeast corner of the site) and slightly elevated concentrations of zinc (max. 1,030mg/kg) reported in fill at Alliances location B3, and at location B20 (on the south-western site corner boundary). Concentrations of zinc were reported at <LOR or below the adopted residential EILs in natural soil at locations B3 and B20. Elevated concentrations of lead (804mg/kg) were reported in natural soil at location B3, however as discussed above, LRM installed testpit TP2 at this location and concentrations of <5mg/kg lead were reported in natural soil (testpit TP2 was installed following the removal of crushed rock from the site). Lead concentrations in the deep aquifer were generally reported in the range <1-3µg/L, below the adopted groundwater assessment criteria, with the exception of wells MW4, MW5, MW7 and MW9 in Round 1 (undertaken by Alliance) which reported concentrations in the range 6-15µg/L, exceeding the adopted groundwater assessment criteria for Maintenance of Ecosystems and Potable Water Supply. When these wells were re-sampled in Round 2 (by LRM), concentrations of <1-3µg/L, below the adopted groundwater assessment criteria, were reported. It is also noted that wells MW4, MW5, MW7 and MW9 (where elevated lead concentrations in groundwater were reported by Alliance) are not in the vicinity of soil sampling location B3 where elevated concentrations of lead were reported in soil.

Therefore, based on the available evidence, the Auditor has concluded that concentrations of metals in the deep aquifer at the site are likely to be regionally occurring and/or representative of natural conditions within the aquifer, and are not considered to be site derived pollution.

6.8.2 Fluoride

Groundwater samples collected from the deep aquifer generally reported fluoride concentrations <1,000µg/L, with only one well – MW7 located in the centre of the site – reporting a fluoride concentration of 1, 100µg/L, marginally above the adopted criteria for the protection of the beneficial use of Agriculture, Parks and Gardens. This concentration was reported in September 2013, the only round MW7 was analysed for fluoride.

No potential sources of fluoride were identified at the site and fluoride concentrations in the range <100-170mg/kg, below the adopted soil assessment criteria, were reported in fill and natural soil at the site.

Elevated fluoride concentrations were not observed in the shallow well that analysed for fluoride (MW9A).

Given the above, and that concentrations of fluoride up to 1,300µg/L were reported in groundwater at the 9-41 Charlton Avenue and 18-22 Hamlet Street audit sites, concentrations of fluoride in groundwater are not considered to be site derived pollution, are more likely to be regional in nature.

6.8.3 Nitrate and Nitrite

Nitrate (as N) concentrations were generally consistent across the site and exceeded the adopted criteria for the protection of the beneficial uses of Maintenance of Ecosystems, Potable Water Supply and/or Agriculture Parks and Gardens in 12 of the 24 wells sampled.

Nitrite (as N) concentrations exceeded the adopted criteria for the protection of the beneficial uses of Maintenance of Ecosystems and/or Potable Water Supply in 3 of the 9 wells sampled. Elevated concentrations of nitrite (as N) were reported in northern boundary well MW8, with elevated concentrations of nitrate (as N) reported in northern boundary wells MW10 and MW12.

No pattern in the distribution of nitrate or nitrite impacts was identified at the site that might indicate an on-site source of pollution, with significantly higher nitrate and similar nitrite concentrations reported in groundwater at 18-22 Hamlet Street (up-gradient from the site). The Audit Report for 18-22 Hamlet Street notes that elevated nitrate concentrations were reported for groundwater in the vicinity of this Audit site, and concludes that concentrations of nitrate and nitrite in groundwater were likely to be regionally elevated with further elevation possible due to onsite operations. Low nitrate and nitrite concentrations, below the adopted groundwater assessment criteria for the current Audit site, were reported in the deep aquifer at 9-41 Charlton Avenue (down-gradient from the site).

Given the above, concentrations of nitrate and nitrite in the deep aquifer are not considered to be site derived pollution but are considered likely to be regional in nature, and/or or associated with diffuse anthropogenic source/s or possibly from regional sewer systems.

6.8.4 pH

Slightly acidic pH concentrations in the range 4.7-7.4 units were reported in the deep aquifer, outside of the adopted groundwater assessment criteria range of 6.5-8.5 units (for the protection of Maintenance of Ecosystems, Potable Water Supply, Agriculture, Parks and Gardens and Primary Contact Recreation) and below the adopted assessment criteria for the protection of the beneficial use of Buildings and Structures.

Based on the following evidence, the Auditor considers that the acidic pH in the deep aquifer at the current Audit site is likely to be naturally occurring:

- As noted above, pH concentration in the ranges of 4.8-9.9 units and 5.3-8.5 units were reported in fill and natural soil respectively. pH concentrations in fill at the upper and lower end of the reported range (i.e. below 5 units and above 9 units) were reported away from the main carpet manufacturing areas. The average pH in fill and natural soil was 7.9 units and 7.5 units respectively, within the adopted soil criteria range
- Acidic groundwater was reported in the deep aquifer at 9-41 Charlton Avenue and in groundwater at 18-22 Hamlet Street, Cheltenham.
- pH concentrations reported in groundwater are typical of background concentrations associated with the Brighton Group aquifer.

6.8.5 Formaldehyde

The Auditor notes that one elevated concentration of formaldehyde was reported in 2012 (600µg/L). Non-detectable to low concentrations of formaldehyde (in the range <100 µg/L to 400µg/L) were reported in all subsequent sampling rounds for this well, with concentrations of formaldehyde of <100 µg/L to <200µg/L reported for all wells in the final round of sampling. Concentrations of formaldehyde in soil sample G1, collected from adjacent to well MW9 were reported at less than the LOR.

It is noted that LRM adopted a criteria of 0.05µg/L for the protection of Maintenance of Ecosystems.

Concentrations of formaldehyde were reported at the site at 9-41 Charlton Ave up to maximum concentrations of 2,700µg/L. The audit concluded that the source of formaldehyde was a former UST containing vinyl acetate monomer (VAM), of which formaldehyde is a degradation product, reported to have been leaking in 1988. The former UST was located approximately 80m to the west of the Charlton Ave site. It is considered that the detectable formaldehyde concentrations at the site are likely to be associated with the same source.

The Auditor concludes the formaldehyde concentration observed in 2012 is likely to be associated with this former off-site source, however formaldehyde is not considered pollution at the site.

6.8.6 Chlorinated Hydrocarbons

Elevated concentrations, exceeding the adopted criteria, were reported in the following wells:

- TCE: in wells MW9 and MW21 located in the northern central part of the site adjacent to the former boiler house and USTs; and
- 1,1 DCA, 1,1 DCE, 1,2 DCA and vinyl chloride: in well MW13 located in the central eastern part of the site, adjacent to the north-south sewer main.

In addition, detectable concentrations of PCE, TCE, vinyl chloride, cis 1,2 DCE, 1,1 DCA, 1,1 DCE, 1,2 DCA and chloroform below the adopted criteria were observed in several deep wells across the site throughout the investigation works.

As noted above in Section 6.7.4, elevated concentrations of PCE and TCE were also identified in perched groundwater at the site. Cis and trans 1,2 DCE concentrations below the adopted criteria were also observed in MW9A/MW9AR, and one concentration of TCE below the adopted criteria was observed in SW02 (immediately adjacent to MW9A.MW9AR) The impact observed in the perched aquifer was highly localised, in the vicinity of MW9A/MW9AR.

A summary of the reported concentrations of VCHs in the deep and shallow aquifers in the final round of sampling in August 2014 is provided in Table G, with the relevant criteria provided in Table H (attached). It is noted from Table G that chlorinated hydrocarbons in groundwater were reported to be consistent over the 10 rounds of groundwater monitoring.

An assessment of the VCH impact observed across the site notes that along the northern portion of the site, VCH impact predominantly consists of chlorinated ethenes (PCE and its breakdown products). However, impact in the vicinity of MW13 (extending north to south through the eastern portion of the site) predominantly consists of 1,1 DCE and 1,1 DCA, (breakdown products of 1,1,1 TCA). The impact in the shallow aquifer is consistent with the contaminants observed within the northern deep plume (chlorinated ethenes). Figures 16 and 18 depict the distribution of VCH contaminants observed across the site.

Extensive soil sampling works were undertaken at the site and concentrations of all VCHs in all soil samples were reported at less than the LOR. Field assessment works therefore did not identify any on-site primary or secondary sources of chlorinated hydrocarbons. As such, consideration of potential sources and contaminant distribution across the site and across potential off-site sources was conducted.

As noted above (refer to Table D - attached), the audit at 18-22 Hamlet St identified a range of chlorinated compounds in groundwater which were considered to potentially be migrating south beneath the site. The limited data provided for 10/12 Phillip Street, located immediately to the north of the site, also indicated that very low levels of chlorinated ethenes (PCE and TCE) were present in groundwater on the site boundary in 2011.

Given this, a review of the groundwater data from 18-22 Hamlet Street, and the current Audit site was undertaken to help identify where chlorinated hydrocarbons in the groundwater at the site may have been released. This data is graphically presented in Figure 19.

The review indicated that there was at least three chlorinated hydrocarbon source areas present at 18-22 Hamlet Street:

- A chloroform plume in the central northern portion of the site (11,600µg/L in MW3);
- A dichloromethane (DCM) and trichloroethene (TCE) plume in the centre of the site (179,000µg/L DCM and 423,000µg/L TCE in MW15/3); and
- A predominantly TCE plume in the eastern portion of the site (143,000µg/L in MW19).

Downgradient of 18-22 Hamlet Street (towards the site), the plumes appeared partly mixed due to dispersion, and by the time the impact has reached the northern boundary of the current Audit site, a clear gradation from predominantly chloroform impact in the west (MW10), to TCE and its breakdown products in MW21 and MW9 in the east was identified.

Field investigations conducted at the site indicate the presence of parent products (PCE, TCE, 1,1,1 TCA, chloroform and dichloromethane) and daughter products (cis 1,2 DCE, VC, 1,2-DCA, 1,1-DCA and 1,1 DCE). As noted in the Coffey Environments (September 2014) MNA report, concentrations of 1,1 DCA detected at the site in comparison to concentrations reported at 18-22 Hamlet St, would suggest the potential for a historical release on-site of 1,1,1 TCA (the parent product), as 1,1 DCA concentrations in MW13 were more than twice those concentrations reported in the most 1,1 DCA impacted well at 18-22 Hamlet Street.

The detection of 1,1 DCA or 1,1 DCE concentrations close to LOR or <LOR in wells adjacent to this plumeline: MW15, MW16, MW19, MW20, MW3 and MW1 indicates that the lateral extent of the plume is limited.

Chlorinated ethane impact identified in MW9A/MW9AR is consistent in make-up with that of the northern plume, however it is noted to be reported at concentrations 10-100 fold higher than the highest chlorinated ethane concentrations in the deep aquifer on-site. In addition, impact within the deep aquifer is highest in the vicinity of the impact identified at the shallow aquifer (MW9).

In considering potential sources of the chlorinated ethenes in the perched water, the Auditor considered the impact likely to be associated with either one or all of the following potential sources:

i) An upgradient source at 10/12 Phillip St and/or 18-22 Hamlet St being transported through ephemeral perched water;

ii) An upgradient source 10/12 Phillip St and/or 18-22 Hamlet St being transported through sewer and stormwater networks acting as potential pathways for contaminant movement; and/or

iii) A localised on-site secondary source.

It is noted that soils within the vicinity of shallow well MW9A/MW9AR were excavated during the diesel tank removal and validation works. No detected VCHs were identified in soil during these works. In addition, the remediation works resulted in no decrease to on-site perched water concentrations of chlorinated hydrocarbons.

On the basis of the information outlined above, the Auditor has determined that the current Audit site is potentially a source or co-source of the identified VCHs in both the shallow and deep groundwater. It is also noted that the Auditor met with the EPA on 21 July 2014 to discuss the findings of the site assessment, with particular focus on the potential source of VCHs identified. The EPA concurred that, based on the information presented and collected to date, the site was likely to be at the very least, a co-source of the VCH impact identified.

6.9 Groundwater Remediation

No active groundwater remediation has been undertaken at the site.

The residual mass of groundwater contamination at the site can be assessed in terms of TRH and Total Chlorinated Hydrocarbons (the sum of all chlorinateds). In both cases the assessment of residual groundwater contamination is difficult to accurately estimate due to inherent heterogeneity of groundwater and geological variability. Nonetheless broad order of magnitude estimates of dissolved phase contamination mass can be estimated.

In terms of the deeper aquifer VCH mass, the data gathered suggests the following characteristics:

- A maximum area of impact of about 40 by 140 metres (5,600 square metres)
- A maximum total VCH concentration of about 1,600 ug/L (in MW13) and typically less than 20 ug/L in other wells within the impacted plume
- An aquifer porosity of 28.5% (taken as 30%)
- An assumed depth of impacted aquifer of 4 metres

Based on the above the volume of groundwater in the impacted zone is about 5,600 times 4 times 0.3 = 6,720 cubic metres (or 6.7 Megalitres). Adopting an average total chlorinated hydrocarbon concentration of 100 ug/L (considered reasonable given that only one well (MW13) was above about 50 ug/L) produces a total dissolved phase mass of chlorinated hydrocarbons of about 672 grams, or less than 1 litre of pure solvent, and the vast majority of this would be concentrated near MW13.

In terms of hydrocarbons in the perched groundwater, the data suggest the following:

- A maximum area of impact of about 40 by 30 metres (1,200 square metres)
- A maximum total TRH concentration of about 2,500 ug/L (in SW8)
- An aquifer porosity of 28.6% (taken as 30%)
- An assumed depth of impacted aquifer of 1.5 metres

Based on the above the volume of groundwater in the impacted zone is about 1,200 times 1.5 times 0.3 = 540 cubic metres (or 540 Kilolitres). Adopting an average TRH hydrocarbon concentration of 1,250 ug/L (half the maximum identified in the plume) produces a total dissolved phase mass of hydrocarbons of about 675 grams, again less than 1 litre of pure petroleum product.

In terms of chlorinated hydrocarbons in the perched groundwater, the data suggest the following:

- A maximum area of impact of about 20 by 20 metres (400 square metres)
- A maximum total VCH concentration of about 500 ug/L (in MW(AR)
- An aquifer porosity of 28.6% (taken as 30%)
- An assumed depth of impacted aquifer of 1.5 metres

Based on the above the volume of groundwater in the impacted zone is about 400 times 1.5 times 0.3 = 180 cubic metres (or 180 Kilolitres). Adopting an average VCH concentration of 250 ug/L (half the maximum identified in the plume) produces a total dissolved phase mass of hydrocarbons of about 45 grams, again less than 1 litre of pure solvent product.

6.10 Summary of Final Groundwater Condition

In summary:

- Elevated concentrations of pH, metals, nitrate, TRH, PCE and TCE exceeding the adopted criteria for protection of beneficial uses, have been identified in groundwater in the perched aquifer across the northern part of the site.
- Elevated concentrations of pH, metals, nitrate, nitrite, fluoride, 1,1 DCA, 1,1 DCE, 1,2 DCA, TCE and VC exceeding the adopted criteria for protection of beneficial uses, have been identified in groundwater in the deep aquifer across the site.

Based on the distribution of the concentrations, the Auditor considers that metals and nutrients are indicative of the background conditions of the aquifer and are not associated with past or present activities on site. However, the site is likely to be a co-source of VCH contamination identified in the deep and shallow aquifers. The site is considered likely to be the source of the TRH impact in the shallow aquifer.

Table 6.6 below, as provided within Appendix B of EPA Publication 840.1, provides a summary of contaminants identified on-site in relation to the beneficial use they preclude.

Table 6.6 Precluded Beneficial Use Summary Table

Precluded beneficial use	Contaminants – perched aquifer	Contaminants – deep aquifer
Maintenance of ecosystems	Aluminium[n], iron[n], arsenic[b], copper[b], manganese[b], molybdenum[b], nickel[b], zinc[b], nitrate[b], TRH C_{10}-C_{40}, PCE	Aluminium[n], iron[n], selenium[n], arsenic[b], total chromium[b], cobalt[b], copper[b], lead[b], manganese[b], nickel[b], zinc[b], nitrate[b], nitrite[b], 1,1 DCA
Potable water	pH[n], aluminium[n], iron[n], manganese[b], nickel[b], nitrate[b], TRH C_6-C_{10}, TRH C_{10}-C_{40}, PCE, TCE	pH[n], iron[n], selenium[n], lead[b], manganese[b], nickel[b], nitrate[b], nitrite[b], 1,1 DCA, 1,1 DCE, 1,2 DCA, TCE, VC
Mineral water	NA	NA
Agriculture, Parks and Gardens	pH[n], iron[n], manganese[b], molybdenum[b], nitrate[b], TRH C_{10}-C_{40}	pH[n], iron[n], selenium[n] , manganese[b], zinc[b], nitrate[b], fluoride[b]
Stock watering	pH[n], nitrate[b], TRH C_6-C_{10}, TRH C_{10}-C_{40}, PCE, TCE	pH[n], selenium[n], 1,1 DCA, 1,1 DCE, 1,2 DCA, TCE, VC
Primary contact recreation	pH[n], aluminium[n], iron[n], manganese[b], nitrate[b], TRH C_6-C_{10}, TRH C_{10}-C_{40}, PCE, TCE	pH[n], iron[n], manganese[b], 1,1 DCA, 1,1 DCE, 1,2 DCA, TCE, VC
Industrial water use	pH[n], aluminium[n], iron[n], manganese[b], molybdenum[b], nickel[b], nitrate[b], TRH C_6-C_{10}, TRH C_{10}-C_{40}, PCE, TCE	pH[n], iron[n], fluoride[b], selenium[n], lead[b], manganese[b], zinc[b], nickel[b], nitrate[b], nitrite[b], 1,1 DCA, 1,1 DCE, 1,2 DCA, TCE, VC
Buildings and structures	pH[n]	pH[n]

Notes:

(n) – *naturally occurring*
(b) – *background/regional pollution*
NA *– Not applicable*
NE *– No exceedance*
Industrial water use pollution inferred from potable water supply.

Where no note is provided the contaminant is considered to be either sourced from the site or the result of a co-source from on-site and an up-gradient source.

6.11 Natural Attenuation

Given the site was identified to be a co-source of the VCH pollution in groundwater, an assessment of the natural attenuation of chlorinated hydrocarbons in groundwater was undertaken as part of an Auditor determined CUTEP process. The MNA work was undertaken by the Auditor's expert support in "hydrogeology", Mr Michael Blackam. A copy of the MNA report is provided in Appendix G of this report.

The objectives of the assessment were to:

- Identify whether natural attenuation processes are likely to be occurring;
- Identify which contaminants are likely to be migrating onsite from upgradient sources; and
- Provide comment on the likely duration and extent of chlorinated hydrocarbon impact identified in groundwater at the site.

The assessment of the natural attenuation of chlorinated hydrocarbons in the perched and deep groundwater comprised review of the physical evidence alongside the primary, secondary and tertiary lines of evidence for the occurrence of MNA at the site.

The assessment concluded the following:

Perched Aquifer

- The chlorinated hydrocarbon impact in the perched aquifer is composed of chlorinated ethenes, and limited to the area around MW9A/MW9AR on the northern boundary;
- Physical natural attenuation processes via volatilisation, dilution and sorption are expected to contribute to the overall natural attenuation rate;
- The presence of cis 1,2 DCE, a daughter product of TCE, provides strong evidence that biologically mediated degradation via reductive dechlorination is occurring;
- The groundwater geochemistry provides limited evidence of the potential for reductive dechlorination; and
- There is insufficient data available to determine the plume status, however given the discontinuous nature of the shallow aquifer and the data of all other nearby shallow wells, it is considered unlikely that the plume will extend far from MW9A/MW9AR.

Deep Aquifer

- The chlorinated hydrocarbon impact identified in the deeper aquifer onsite is due to impact migrating from upgradient sources, and an onsite source which is of different composition;
- The impact migrating onto the site across the northern boundary is a mixture of chloroform, and chlorinated ethenes;
- The onsite source is suspected to have originally been 1,1,1 TCA, which has degraded predominantly to 1,1 DCA with some 1,1 DCE;
- Physical natural attenuation processes via volatilisation, dilution and sorption are expected to have minimal contribution to the overall natural attenuation rate;
- Concentrations of chlorinated hydrocarbons on the northern boundary are either stable or below the level of reporting. The one exception is MW9 where the concentration of daughter products is increasing (marginal increase of cis 1,2 DCE), with a concurrent decrease in parent products. The stable molar

concentrations, in conjunction with the presence of daughter products, provide strong evidence that degradation via reductive dechlorination is occurring in this area;

- The groundwater geochemistry provides limited evidence of the potential for reductive dechlorination on the northern boundary;
- Contaminant concentration trends indicate that the plume migrating onsite is stable, and assuming the rate of attenuation upgradient remains the same, concentrations are not expected to increase in the future;
- Contaminant concentrations associated with the 1,1 DCA and 1,1 DCE groundwater impact from the suspected onsite source are stable. Although data from the majority of wells where this impact was identified have only been sampled over a limited timeframe, the stable concentrations in MW2 on the southern boundary, which was sampled in 2012, 2013 and multiple times in 2014, provide confidence in the trend;
- The groundwater geochemistry provides limited evidence of the potential for reductive dechlorination in wells where 1,1 DCA impact was identified;
- Based on the estimated contaminant velocity, the extent of the 1,1 DCA plume is less than would be expected given the assumed source release timeframe, providing an additional line of evidence that natural attenuation is occurring; and
- Concentration trends in both the 1,1 DCA suspected source area, and downgradient on the southern boundary indicate that the plume is stable, and assuming the rate of attenuation remains the same, concentrations are not expected to increase in the future.

6.12 Plume Stability

The stability of the chlorinated hydrocarbon plume was also specifically considered as part of the MNA Assessment. To provide an indication of the bulk attenuation occurring, and therefore the plume extent, the decrease in concentration over distance can be compared to the estimated contaminant velocity (seepage velocity divided by retardation) and the time of release. Retardation in the deeper aquifer is expected to be low as organic carbon levels are typically low in this formation, therefore the seepage velocity may not be significantly greater than the contaminant velocity.

Assuming the release in the deeper aquifer occurred while the site operated as a carpet manufacturer, then the age of the source is likely to be > 20 years old. Based on an estimated seepage velocity of between 2m/year and 6 m/year, the length of the 1,1 DCA plume would be expected to be between 40 and 120m long if the release occurred just prior to carpet manufacturing ceasing, and significantly longer if the release occurred earlier in the 40 years that carpet was manufactured at the site. The change in total molar concentration over distance indicates that the current extent of the plume is approximately 50m (refer to Figure 6.2 below), and concentrations of 1,1 DCA in MW2 on the southern boundary have been stable since 2012.

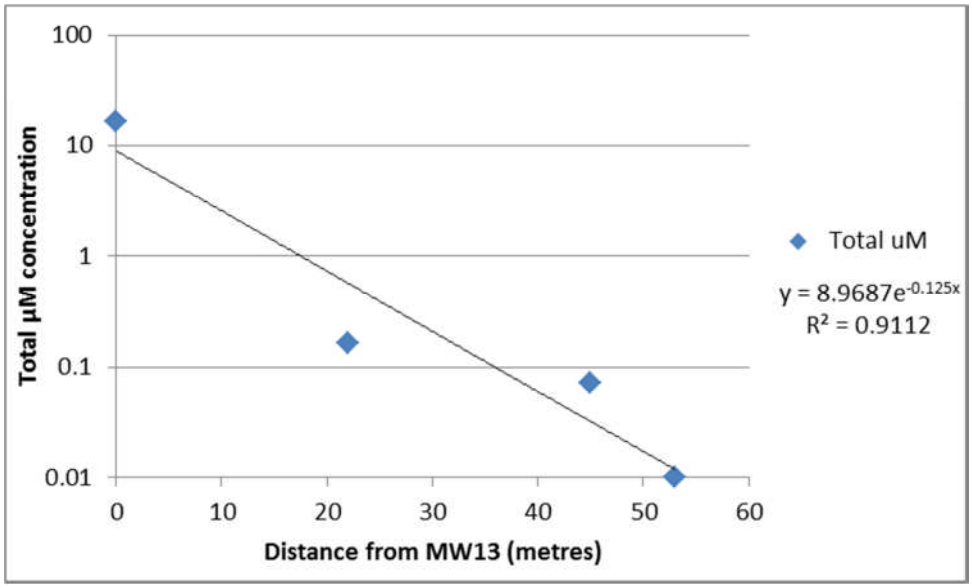


Figure 6.1 Total molar concentration of chlorinated compounds over distance from MW13 in August 2014

Based on the observed plume extent, and the stable concentrations reported in MW2 on the southern boundary and downgradient of MW13, the MNA assessment concluded that natural attenuation appears to be occurring at a rate which is balancing contaminant migration, which indicates that the plume appears unlikely to migrate offsite.

The Coffey Environments (September 2014) Assessment of Natural Attenuation report which provides further detail in regards the natural attenuation and stability of the chlorinated hydrocarbon plumes is provided in Appendix G of this report.

6.13 Soil Vapour Contamination Nature and Extent

Following the identification of VCHs in the deep aquifer at the site, a soil vapour assessment was undertaken.

The soil vapour assessment comprised the installation of one soil vapour bore (SVB01) adjacent to well MW13 where the highest concentrations of VCHs were identified in the deep aquifer on-site. A nested soil vapour well consisting of three discrete soil-vapour probes was installed at the site to target groundwater impact identified at MW13. The nested soil vapour probes were installed at depths of 1.5mbgs, 3.0mbgs and 5.0mbgs. The installation of bore SV01 was undertaken by Drillworx Services Pty Ltd under the supervision of LRM on the 12th August 2014.

One round of sampling of the soil vapour bore into evacuated canisters was undertaken on the 18th August 2014 by Coffey with collected soil vapour samples analysed for volatile organic compounds (VOCs) and aliphatic and aromatic TPH. Monitoring for general gases was also undertaken to evaluate the biodegradation processes occurring in the vadose zone.

The soil vapour results are summarised in Table 6.7 below.

Table 6.7 Summary of Soil Vapour Results (mg/m³)

Analyte	Max. Reported Concentration (mg/m³) (depth)	Adopted vapour intrusion screening level (mg/m³)[1]
Tetrachloroethene	<1.2	2[1]
Trichloroethene	<0.99	0.02[1]
Cis-1,2 dichloroethene	<0.88	0.08[1]
1,1 Dichloroethene	57 (5mbgs)	0.21[2]
Vinyl Chloride	1.4 (5mbgs)	0.03[1]
1,1,1-Trichloroethane	<0.88	0.06[1]
1,2-Dichloroethane	<1.1	2.4[3]
1,1-Dichloroethane	130 (5mbgs)	0.018[2]
Chloroethane	<0.66	10[2]

Notes:

1: NEPC (2013) Health Screening Levels for high density residential use – Soil Vapour HSL B (for Sand 1m-<2m / 2m-<4m / 4m-<8m) or Interim HILB.

2: US EPA (November 2013) Regional Screening Levels for Residential Air adjusted by a factor of 10 to account for a TR = 1 x 10^{-5} and HI = 1.

3: ATSDR (2001) MRL.

All values in mg/m³.

NE: Not Established. Shading denotes exceedance of screening levels.

The soil vapour results indicates that concentrations of VHCs comprising 1,1 DCA, 1,1 DCE and vinyl chloride were reported above the adopted soil vapour assessment criteria. Maximum concentrations were reported at 5.0mbgs, however concentrations above the adopted soil vapour assessment criteria were reported at all depths (i.e. 1.5m, 3.0m and 5.0mbgs).

Detectable concentrations of heptane, 1,2,4-trimethylbenzene and 2,2,4-trimethylpentane were also reported however no soil vapour assessment criteria were adopted.

The reported concentrations of VCHs in soil vapour (including the detectable concentrations of heptane, 1,2,4-trimethylbenzene and 2,2,4-trimethylpentane) were considered in the On-site Health Risk Assessment undertaken by Ms Karen Teague of Coffey, the Auditors expert support in Contaminant Transport and Assessment of Exposure Pathways and Risk.

6.14 Human Health Risk Assessment

Due to the presence of BaP in soil and volatile organics in groundwater in the perched and deep aquifers, the Auditor requested that his expert support in Contaminant Transport and Assessment of Exposure Pathways and Risk Ms Karen Teague of Coffey to undertake an On-site Health Risk Assessment to evaluate the potential human health risks to future users of the site in the context of its development of medium to high density residential use with recreational/open space areas.

The health risk assessment approach was conducted in accordance with the amended National Environment Protection (Assessment of Site Contamination) Measure and the Guidelines for Assessing Human Health Risks from Environmental Hazards (enHealth, 2012).

The risk assessment process comprises hazard identification, dose-response assessment, exposure assessment and risk characterisation (including uncertainty assessment).

The following potential exposure pathways were considered in the HRA:

- Future residents: inhalation of volatile chlorinated hydrocarbons as a result of vapour intrusion (for slab on ground and/or single level basement construction) or seepage into a basement and direct contact with the identified impacts in soil;
- Construction workers and maintenance workers conducting routine sub-surface work: direct contact with identified impacts in perched water and soil, and inhalation of volatile chlorinated hydrocarbons as a result of vapour intrusion or seepage into sub-surface work areas.

The exposure pathways assessed in the HRA are summarised in Table 6.8 and Table 6.9 below.

Table 6.8 HRA Exposure Pathway Evaluation – Soil

Source	Transport	Exposure Point	Exposure Route	Potential Receptors	Potential Complete Pathway
Soil	Volatilisation	Indoor Air	Inhalation	Residential	××
		Outdoor Air (1)		Residential	××
				Recreational	××
				Maintenance	××
				Construction	××
		Subsurface Works		Maintenance	××
				Construction	××
	Direct Contact	Surficial Soils	Incidental Ingestion	Residential	✓✓
				Recreational	✓✓
				Maintenance	✓✓
				Construction	✓✓
			Particulate inhalation	Residential	✓✓
				Recreational	✓✓
				Maintenance	✓✓
				Construction	✓✓
			Dermal contact	Residential	✓✓
				Recreational	✓✓
				Maintenance	✓✓
				Construction	✓✓
		Sub-surface works	Incidental Ingestion	Maintenance	✓✓
				Construction	✓✓
			Particulate inhalation	Maintenance	✓✓
				Construction	✓✓
			Dermal contact	Maintenance	✓✓
				Construction	✓✓

✓✓ Pathway potentially complete – assessed quantitatively; ✓ Pathway potentially complete – assessed qualitatively;
× Pathway insignificant; ×× Pathway incomplete; NA Pathway not applicable
1 Outdoor air scenarios are not modelled in the HRA as the indoor and subsurface scenarios are considered to reflect more significant exposures being in confined environments.

Table 6.9 HRA Exposure Pathway Evaluation – Groundwater

Source	Transport	Exposure Point	Exposure Route	Potential Receptors	Potential Complete Pathway
Groundwater (Perched and deep)	Volatilisation	Indoor Air	Inhalation	Residential	✓✓
		Outdoor Air (1)		Residential	×
				Recreational	×
				Maintenance	×
				Construction	×
		Subsurface Works		Maintenance	✓✓
				Construction	✓✓
	Groundwater Extraction (2)	Domestic Purposes	Direct Ingestion	Residential	✓
			Aerosol	Residential	✓
			Inhalation	Residential	✓
			Dermal Contact	Residential	✓
		Irrigation	Aerosol	Residential	✓
				Recreational	✓
			Inhalation	Residential	✓
				Recreational	✓
			Dermal Contact	Residential	✓
				Recreational	✓
	Subsurface Works		Direct Contact	Residential	××
				Maintenance	✓✓ (3)
				Construction	✓✓ (3)

✓✓ Pathway potentially complete – assessed quantitatively; ✓ Pathway potentially complete – assessed qualitatively;
× Pathway insignificant; ×× Pathway incomplete; NA Pathway not applicable
1 Exposure to petroleum hydrocarbons in outdoor air based on volatilisation from groundwater is considered to be an insignificant pathway based on the NEPC (2013) HSL-C criteria of 'non-limiting' for all volatile COPCs.
2 Potential health risks posed by extractive uses of groundwater have been assessed by comparison to regulatory guidelines.
3 Perched groundwater only.

The findings of the HRA, based on available data, exposure assumptions and constraints of the exposure assessment model are listed below. Please note, the Auditor has removed findings in relation to lead impacts in soil as no lead exceedances are considered to remain on-site.

- Volatile chlorinated hydrocarbon impact detected in perched groundwater indicates a potential unacceptable inhalation health risk may be present for residential occupants of a slab-on-ground building or a building with a basement structure.

- Volatile chlorinated hydrocarbon impact detected in the deeper aquifer is considered unlikely to pose an unacceptable inhalation health risk to for residential occupants of a slab-on-ground building or a building with a basement structure.

- Direct contact with polycyclic aromatic hydrocarbon impacted soil indicates a potential unacceptable direct contact health risk may be present for residential receptors.
- Direct contact with polycyclic aromatic hydrocarbons impacted soil indicates a potential unacceptable direct contact health risk may be present for recreational receptors.
- Hydrocarbon (chlorinated and non-volatile TRH) impact detected in perched groundwater indicates a potential unacceptable health risk may be present for maintenance workers working within trenches at the site based on combined inhalation and direct contact exposures.
- Volatile chlorinated hydrocarbon impact detected in the deeper aquifer is considered unlikely to pose an unacceptable inhalation health risk to for maintenance workers working within utility trenches at the site.
- Direct contact with polycyclic aromatic hydrocarbon impacted soil is considered unlikely to pose an unacceptable health risk for maintenance workers working within trenches at the site.
- Hydrocarbon (chlorinated and non-volatile TRH) impact detected in perched groundwater indicates a potential unacceptable inhalation and direct contact health risk may be present for construction workers working within excavations at the site.
- Volatile chlorinated hydrocarbon impact detected in the deeper aquifer is considered unlikely to pose an unacceptable inhalation health risk to for construction workers working within excavations at the site.
- Direct contact with polycyclic aromatic hydrocarbon impacted soil is considered unlikely to pose an unacceptable health risk for construction workers working within excavations at the site.

Potential health risks associated with perched water were found to be limited to the areas where impact associated with volatile chlorinated hydrocarbons has been identified around MW9A. Impact in perched water has been delineated at SW1, SW13 SW3 (dry) and SW8. Minor impacts were detected at SW02 however, in comparison to contamination reported at MW9A, the health risks are considered to be negligible. For direct contact risks associated with the heavy TPH fractions reported in perched water, the extent was found to be limited to SW8 and SW15.

The HRA concluded that the site could be made suitable for medium to high density residential land use through the implementation of vapour control measures and a site management plan to manage inhalation and/or direct contact risks to workers involved in sub-surface activities in perched water in the vicinity of MW9A. Vapour control measures would be necessary for buildings constructed in the vicinity of volatile chlorinated hydrocarbon impact at MW9A. Suitable vapour control measures may include a vapour barrier (with low permeability for chlorinated compounds) and an appropriate venting system beneath the foundation or within a basement. Any basements built within the perched water area should be constructed to prevent vapours and water seepage occurring through the walls and foundation. All vapour and seepage control measures should be installed under a construction quality assurance (CQA) plan with oversight from a suitably qualified engineer. Benzo(a)pyrene impacts in soil above the HIL criteria could either be removed from the site or managed through the placement of clean fill in areas that will have exposed soil, such as garden beds and open space land.

Given the transient nature of perched groundwater the extent of required vapour barriers will be extended well beyond the known impact at MW9A/MW9AR to ensure potential vapour impacts are properly managed over areas of possible future perched groundwater impact.

Table 6.10 below provides a summary of the findings of the on-site HRA. The on-site HRA report is provided in Appendix H of this report.

Table 6.10 Summary of HRA Findings

Source	Receptor Population	Exposure Point	Exposure Route	Potential Unacceptable Health Risk
Perched Groundwater	Residential Occupant	Slab-on-ground Building	Vapour inhalation	✓
	Residential Occupant	Building with a basement	Vapour inhalation	✓
	Maintenance Worker	1m Deep Trench	Vapour inhalation	✓
			Direct Contact	
	Construction Worker	3m Deep Excavation	Vapour inhalation	✓
			Direct Contact	
Deep Groundwater – Northern Plume	Residential Occupant	Slab-on-ground Building	Vapour inhalation	×
	Residential Occupant	Building with a basement	Vapour inhalation	×
	Maintenance Worker	1m Deep Trench	Vapour inhalation	×
	Construction Worker	3m Deep Excavation	Vapour inhalation	×
Deep Groundwater – Central Plume	Residential Occupant	Slab-on-ground Building	Vapour inhalation	×
	Residential Occupant	Building with a basement	Vapour inhalation	×
	Maintenance Worker	1m Deep Trench	Vapour inhalation	×
	Construction Worker	3m Deep Excavation	Vapour inhalation	×
Soil	Residential Occupant	Surficial Soils	Direct Contact	✓
	Recreational User	Surficial Soils	Direct Contact	✓
	Maintenance Worker	1m Deep Trench	Direct Contact	×
	Construction Worker	3m Deep Excavation	Direct Contact	×

✓The pathways assessed indicated that the exposures may present an unacceptable chronic risk to human health.

× The pathways assessed indicated that the exposures did not present an unacceptable chronic risk to human health.

7 Risk to Beneficial Uses

7.1 Soil Contamination Risks to Beneficial Uses of Land

In accordance with the land SEPP the relevant beneficial uses of the land to be protected are:

- Maintenance of Ecosystems (Modified and Highly Modified);
- Human Health;
- Buildings and Structures;
- Production of Food, Flora and Fibre (relevant for Certificate of Environmental Audit only); and
- Aesthetics.

In accordance with the definition provided in Appendix 4 of the EPA Victoria (September 2007) *Environmental Auditor (Contaminated Land) Guidelines for Issue of Certificates and Statements of Environmental Audit*, Publication 759.2, the proposed development is classified as high-density residential and recreational/open space. However, in the context of unrestricted site use, the protection of all beneficial uses has been considered for the purposes of the Audit.

7.1.1 Maintenance of Ecosystems

Concentrations of barium, manganese, vanadium, zinc, BaP and TRH fraction F3 above the adopted Ecological ILs for landuse settings Residential 'A', Residential 'B', Recreational/Open Space 'C and/or 'Commercial/Industrial' were reported within soils currently remaining at the site. In addition, pH was reported at concentrations exceeding the adopted Ecological ILs for all landuse settings were reported.

In the context of the unrestricted use of the site concentrations of BaP, TRH, and metals (barium, manganese, vanadium and zinc) may be potentially detrimental to the beneficial use of Maintenance of Ecosystems.

As such a Statement Condition has been included (see Appendix A) to enable the protected of the beneficial use Maintenance of Ecosystems in the context of the proposed development of the site (by requiring 0.5m of 'clean fill' to be present in all non-sealed areas). In the context of proposed development with the implementation of the Statement Condition to manage the exceedances, the beneficial use of Maintenance of Ecosystems is considered to be protected.

Concentrations of pH were considered to be regionally occurring in natural soils and therefore are not considered to represent site-derived pollution. The average pH concentrations in fill and natural soil were below the adopted Ecological ILs for all landuse settings.

7.1.2 Human Health

All contaminants of potential concern, including selected metals (as analysed), BTEX, TPH, PAH, chlorinated hydrocarbons, OCPs, PCBs, cyanide, fluoride, sulphate and phenols were either not detected or reported below the adopted Human Health ILs with the exception of the following:

- Carcinogenic PAHs (as BaP TEQ) above the above the adopted Human Health ILs for landuse settings 'A', 'B' and/or 'C'. Concentrations of BaP TEQ were below the adopted Human Health ILs for landuse setting 'D';

Elevated concentrations of carcinogenic PAHs were considered in the On-site HRA completed by Ms Karen Teague, the Auditor's EPA approved expert support for "assessment of exposure pathways and risk". The on-site HRA identified a potential unacceptable direct contact health risk for residential receptors following contact with PAH impacted soils and as such a Statement Condition has been included in order to mitigate the risk and

render the site suitable for the proposed development (by the requirement for 0.5m of 'clean fill' to be present in all non-sealed areas).

7.1.3 Buildings and Structures

The reported average soil pH was >5.5 units and reported sulphate concentrations were <5,000mg/kg. Therefore soil at the site is classified as non-aggressive in accordance with AS2159-2009 and this beneficial use is not considered to be precluded.

7.1.4 Production of Food, Flora and Fibre

The beneficial use of Production of Food, Flora and Fibre is considered to be potentially precluded under unrestricted land use due to the concentrations of BaP, metals (barium, manganese, vanadium and zinc) and TRH fraction F3 exceeding the adopted Ecological ILs. However in the context of proposed development, including the requirement to have 0.5m of 'clean fill in all non-sealed areas, the beneficial use of Production of Food, Flora and Fibre is considered to be protected.

7.1.5 Aesthetics

Inert wastes (including crushed rock, construction debris, brick and terracotta fragments, ballast, timber and steel) remained in fill at the site. In addition, grey/green coloured soils with a septic odour were identified in fill and natural soils in the south-west corner of the site.

In the context of the unrestricted use of the site the presence of inert waste and odours/staining in the south-west corner of the site may be potentially detrimental to the beneficial use of Aesthetics. However in the context of proposed development, a Statement Condition has been included (by the requirement for 0.5m of 'clean fill' to be present in all non-sealed areas) and as such, the site is considered suitable for the proposed development and the beneficial use of Aesthetics is considered to be protected.

7.1.6 Potential for Off-Site Contamination

Due to their reported low mobility and volatility, it is considered that metals, BaP and TRH fraction F3 impacts in soils at the site are unlikely to have caused, or have the potential to cause, off-site contamination.

7.2 Summary of Soil Contamination Impact to Beneficial Uses of Land

Given the nature and extent of contaminants in soils beneath the site, the following observations are made regarding impacts to protected beneficial uses of land.

- 'Maintenance of Ecosystems' is considered to be precluded at the site by concentrations of BaP, TRH fraction F3 and metals (barium, manganese, vanadium and zinc) exceeding the adopted Ecological ILs.
- 'Human Health' is considered to be precluded at the site by concentrations of carcinogenic PAHs (as BaP TEQ);
- 'Buildings and Structures' is not a precluded beneficial use at the site;
- 'Aesthetics' is considered to be precluded at the site by due to the presence of inert waste in fill and odours/staining in soils in the south-west corner of the site;
- 'Production of Food, Flora and Fibre' is considered to be precluded at the site by concentrations of BaP, TRH fraction F3 and metals (barium, manganese, vanadium and zinc) exceeding the adopted Ecological ILs;

In summary, the site in its current condition precludes or potentially precludes one or more beneficial uses of land in the context of unrestricted land use and therefore the Auditor is unable to issue a Certificate of Environmental Audit for the site. However, in the context of the proposed medium to high density development, with the inclusion of a Statement Condition to manage exposure to soil exceedances, the site is considered suitable for the proposed use and all relevant beneficial uses would be protected. The Statement of Environmental Audit, allowing for the proposed development, is provided in Appendix A.

7.3 Pollution of Groundwater

Groundwater at the site occurs at approximately 0.5 to 2mbgs in the perched aquifer and at approximately 7 to 10mbgs in the deep aquifer. Based upon a TDS range of 200 to 3,300mg/L for monitoring wells in the perched aquifer and 220 to 4,100mg/L for monitoring wells in the deep aquifer, groundwater is classified as Segment A1 in accordance with the SEPP (1997) *Groundwaters of Victoria* – refer to Table 7.1 below.

Table 7.1 Aquifer Classification Based on On-Site TDS Concentrations

Beneficial Uses	Segments Based on TDS Range (mg/L)				
	A1	A2	B	C	D
	0 - 500	501 – 1,000	1,001 – 3,500	3,501 – 13,000	Greater than 13,000
Maintenance of Ecosystems	✓	✓	✓	✓	✓
Potable Water Supply					
- Desirable	✓				
- Acceptable		✓			
Potable Mineral Water Supply	✓	✓	✓		
Agriculture, Parks and Gardens	✓	✓	✓		
Stock Watering	✓	✓	✓	✓	
Industrial Water Use	✓	✓	✓	✓	✓
Primary Contact Recreation	✓	✓	✓	✓	✓
Buildings & Structures	✓	✓	✓	✓	✓

Note: The above table is drawn from State Environment Protection Policy (Groundwaters of Victoria), December 1997.

Based on the Groundwater SEPP (1997), the following beneficial uses would need to be protected for the TDS reported at the site:

- Maintenance of Ecosystems;
- Desirable Potable Water Supply;
- Potable Mineral Water Supply;
- Agriculture, Parks and Gardens;
- Stock Watering;
- Industrial Water Use;

- Primary Contact Recreation; and
- Buildings and Structures.

7.3.1 Risk to Beneficial Uses of Groundwater

The likelihood of beneficial uses being realised, both on-site and off-site, are summarised in the following table. As mentioned previously it will be accepted, as a result of the wide and diverse potential for Industrial Use, that if any other beneficial use (excluding Maintenance of Ecosystem as this is not an extractive groundwater use) is precluded due to the presence of pollution then it will be deemed that Industrial Use is also precluded by the same contaminants.

Table 7.2: Likelihood of Beneficial Uses being Realised (Potential or Existing Use Shaded)

Beneficial Use	On-Site	Off-site
Maintenance of Ecosystems	UNLIKELY No on-site aquatic ecosystem.	POTENTIAL The closest receiving water is Port Phillip Bay located approximately 2.7km south-west of the site at its nearest point.
Desirable Potable Water Supply	UNLIKELY Given the current proposed high density residential and recreational and open space land use scenario, and the presence of a reticulated water supply.	POTENTIAL Bores registered for domestic use have been identified within 2km of the site.
Agriculture, Parks and Gardens	UNLIKELY Given the current proposed high density residential and recreational and open space land use scenario, and the presence of a reticulated water supply.	POTENTIAL Bores registered for irrigation use have been identified within 2km of the site.
Stock Watering	UNLIKELY Under to the current proposed high density residential and recreational and open space land use scenario, stock watering is considered unlikely.	POTENTIAL Bores registered for use have been identified within 2km of the site
Industrial Use	UNLIKELY Given the current proposed high density residential and recreational and open space land use scenario, and the presence of a reticulated water supply.	POTENTIAL One bore registered for industrial use has been identified within 2km of the site.
Primary Contact Recreation	UNLIKELY Given the current proposed high density residential and recreational and open space land use scenario, and the presence of a reticulated water supply	POTENTIAL Several bores registered for domestic use have been identified within 2km of the site.
Building and Structures	POTENTIAL Perched groundwater is present between 0.5 to 2mbgs and has the potential to come into contact with building foundations. Deep groundwater is present between 8-10mbgs and is unlikely to intercept building foundations.	POTENTIAL Perched groundwater is present between 0.5 to 2mbgs and has the potential to come into contact with building foundations. Deep groundwater is present between 7-10mbgs and is unlikely to intercept building foundations.

Protected beneficial uses of groundwater that are considered to have the potential to be realised on-site are limited to Buildings and Structures.

According to SEPP (1997), the groundwater quality objective for the beneficial use 'Building and Structures' is "introduced contaminants shall not cause groundwater to become corrosive to structures or building materials". With the exception of the acidic pH, none of the groundwater pollutants identified at the noted concentrations are

considered of potential concern to buildings and structures. The auditor considers that any on-site risk posed by groundwater pollution could be managed via recommendation to the EPA that the site be declared a Groundwater Quality Restricted Use Zone (GQRUZ) and a Statement Condition preventing the extractive use of groundwater at the site.

All protected beneficial uses of groundwater are considered to be potentially realised off-site however:

- The TRH and chlorinated hydrocarbon impacts identified in the perched aquifer are considered unlikely to migrate off-site in the future due to the discontinuous nature of the perched aquifer. In addition, the extremely low yielding nature of the aquifer means it is unlikely to be accessed for extractive use.
- The chlorinated hydrocarbon (1,1 DCA and 1,1 DCE) impact present in the deep aquifer is delineated on-site and considered unlikely to migrate off-site in the future (refer to Section 6.12 above).

Therefore, the Auditor has concluded that the protected beneficial uses of groundwater off-site are not precluded by the identified pollution.

7.3.2 Risk to Beneficial Uses of Land

As discussed in Section 6.14 above, an on-site HRA was undertaken by the Auditor's expert support in Contaminant Transport and Assessment of Exposure Pathways and Risk - Ms Karen Teague of Coffey.

The on-site HRA considered the potential human health risks to future users of the site associated with vapours emanating from volatile chlorinated hydrocarbon contaminants in perched and deep groundwater at the site.

It was concluded that vapour intrusion risks were considered unlikely to be associated with volatile chlorinated hydrocarbon contaminants in the deep groundwater for maintenance workers, construction workers and residential users for a slab on ground and a one level basement development.

In regards to the volatile chlorinated hydrocarbon contaminants in perched groundwater it was concluded that potential risks to all users of the site (maintenance workers, construction workers and residential users for a slab on ground and a one level basement development) existed. As such, vapour intrusion risks could be mitigated with the use of a suitable vapour barrier and venting system installed to isolate the impacts from the proposed development.

It should be noted that as perched water has not been observed across the entire extent of the site, requirement for the vapour barrier has been limited to the area of the groundwater exceedance (MW9A/MW9AR) and a buffer zone beyond this to cater for possible movement of the contaminated perched groundwater (see Figure 3A attached to the Statement of Environmental Audit, provided in Appendix A). It is noted that perched groundwater may not be present at all locations and at all times within the zone requiring vapour protection, but the potential exists for perched groundwater to migrate and as such the zone is defined as one continuous area.

7.4 Consideration of CUTEP

Given the identified presence of groundwater pollution at the site, consideration was given to the requirement for CUTEP under Section 13.6 and 13.7 of EPA Publication 759.2. A review of groundwater pollution, including source, extent, distribution, trends and risk was considered. The following was concluded:

- the site is a source (or likely source)
- NAPL is not present
- the pollution is located within the site boundary
- the extent of pollution is stable and is unlikely to migrate beyond the site boundary
- the presence of groundwater pollution does not affect the beneficial uses of land offsite

Based on the above and Section 13.7 of 759.2, the Auditor considered that an Auditor determined CUTEP was appropriate for the site. Such guidance was also sought and received from the EPA. The Auditor has completed a CUTEP report and it is presented in Appendix E (in accordance with EPA Publication 840.1 requirements).

The Auditor recommends that the site to be designated by EPA as a Groundwater Quality Restricted Use Zone (GQRUZ).

7.5 Ongoing Management of Polluted Groundwater

In considering the possible need for an on-going groundwater monitoring and management plan the Auditor has considered the following:

- The transient nature of the perched water across the site;
- The localised nature of the impact within the perched aquifer;
- The upgradient off-site source of chlorinated hydrocarbon contamination;
- The human health risk assessment for the deeper aquifer which concluded that there was no on-site vapour risk with respect to chlorinated hydrocarbons within the deeper aquifer. In addition, the natural attenuation assessment concluded that concentrations are stable and/or decreasing and as such are unlikely to pose a vapour intrusive risk to site users in the future. The natural attenuation assessment also concluded that the plume is unlikely to migrate off-site.

As such, the Auditor considers that a Groundwater Quality Management Plan (GQMP) should be implemented in order to monitor the extent of perched water across the site, ensuring that chlorinated hydrocarbon and TRH impacted perched water does not extend into areas where the vapour barrier and marker layer has not been specified. Given the stable and low risk nature of the deeper aquifer the Auditor does not consider a GQMP necessary for the deeper aquifer.

A copy of the GQMP is attached to the SoEA, provided within Appendix A of this report.

7.6 Groundwater Quality Restricted Use Zone (GQRUZ)

As indicated above in Section 7.4, the Auditor recommends that the site be declared a Groundwater Quality Restricted Use Zone (GQRUZ). A figure showing the extent of the proposed GQRUZ has been attached to the SoEA (provided as Appendix A).

As discussed above, the extractive beneficial uses of 'Potable Water', 'Agriculture, Parks and Gardens', 'Stock Watering', 'Primary Contact Recreation' and 'Industrial Use' are precluded on-site due to VCHs and TRH concentrations in groundwater at the site.

8 Audit Conclusions

8.1 Soil

The Auditor acknowledges that this Environmental Audit was undertaken in accordance with Part IXD of the Environment Protection Act (1970) in order to assess the suitability of the land for all potential land uses. Based on the findings of this Environmental Audit, the Auditor is of the opinion that the site in its current condition precludes or potentially precludes one or more beneficial uses of land in the context of unrestricted land use (i.e. 'Maintenance of Ecosystems', 'Human Health', 'Production of Food, Flora and Fibre' and 'Aesthetics') and, hence, the site is not unconditionally suitable for all potential land uses.

Concentrations of BaP, carcinogenic PAHs (as BaP TEQ), metals (barium, manganese, vanadium and zinc) and TRH fraction F3 exceed the Audit criteria for unrestricted sensitive uses. However in the context of the proposed

medium-high density residential and recreational/open space development , with the inclusion of a Statement Condition to manage potential exposure to impacted soil, the beneficial uses of 'Maintenance of Ecosystems', 'Human Health', 'Production of Food, Flora and Fibre' and 'Aesthetics are considered to be protected.

On the basis that some beneficial uses of land are precluded, the Auditor is unable to issue a Certificate of Environmental Audit for this site.

If a Certificate of Environmental Audit was required for this site, the removal of all soil impacts would need to be enacted.

8.2 Groundwater

Groundwater investigative works completed for the site identified the presence of two aquifers at the site, a perched Quaternary Sands aquifer at approximately 0.5 – 2.0mbgs and a deeper Brighton Group Aquifer at approximately 7.0 – 10mbgs. Assessment works completed for the site characterised the two aquifers identified at the site.

8.2.1 Perched Aquifer

Results of the groundwater investigative works in the perched aquifer identified elevated concentrations of pH, metals (aluminium, iron, arsenic, copper, manganese, molybdenum, nickel and zinc), nitrate, TRH C_6-C_{10}, TRH >C_{10}-C_{40}, TCE and PCE exceeding the adopted groundwater quality criteria for one or more protected beneficial uses. Acidic pH was also reported in groundwater.

Based on a review of the contaminant profile in on-site soils, consideration of the site history, the proximity of various historical industrial land-uses and the site's urban setting, as well as off-site up-gradient concentrations reported in groundwater at nearby Audit sites, the Auditor has concluded that:

- Concentrations of pH and metals (aluminium and iron) are considered naturally occurring and as such are not considered to be pollution at the site;
- Concentrations of metals (arsenic, copper, manganese, molybdenum, nickel and zinc) and nitrate are considered regional in nature or from an upgradient source and therefore are not considered to constitute pollution associated with historical activities conducted at the site;
- The subject site is considered to be a source of the TRH >C_{10}-C_{40}.
- The subject site is considered to be a co-source of the TRH C_6-C_{10}, TCE and PCE contamination.

8.2.2 Deep Aquifer

Results of the groundwater investigative works in the deep aquifer identified elevated concentrations of pH, metals (aluminium, iron, selenium, arsenic, total chromium, cobalt, copper, lead, manganese, nickel and zinc), nitrate, nitrite, fluoride, 1,1 DCA, 1,1 DCE, 1,2 DCA, TCE and VC exceeding the adopted groundwater quality criteria for one or more protected beneficial uses.

Based on a review of the contaminant profile in on-site soils, consideration of the site history, the proximity of various historical industrial land-uses and the site's urban setting, as well as off-site up-gradient concentrations reported in groundwater at nearby Audit sites, the Auditor has concluded that:

- Concentrations of pH and metals (aluminium, iron and selenium) are considered naturally occurring and as such are not considered to be pollution at the site;

- Concentrations of metals (arsenic, total chromium, cobalt, copper, lead, manganese, nickel and zinc), nitrate, nitrite and fluoride are considered regional in nature or from an upgradient source and therefore are not considered to constitute pollution associated with historical activities conducted at the site;
- The subject site is considered to be a co-source of the 1,1 DCA, 1,1 DCE, 1,2 DCA, TCE and VC contamination.

8.2.3 CUTEP

Given the identified presence of groundwater pollution at the site, consideration was given to the requirement for CUTEP under Section 13.6 and 13.7 of EPA Publication 759.2. The Auditor considered that clean-up to the extent practicable had been achieved for the site and an Auditor determined CUTEP was completed for the site in accordance with EPA Publication 840.1.

The Auditor recommends to the EPA that the site be designated as a Groundwater Quality Restricted Use Zone (GQRUZ).

8.3 Outcome of Auditor's Conclusions

Two statements of environmental audit have been issued for the site, one for the site (omitting the area on which the electrical substation stands) and one for the electrical substation. Copies of the statements have been provided in Appendix A and Appendix B of this report respectively.

8.4 Support Team Involved

Ms Karen Teague, the Auditor's EPA approved expert support for "assessment of exposure pathways and risk", prepared the March 2014 On-site HRA report and Mr Michal Blackam, the Auditor's EPA approved expert support for "hydrogeology", prepared the MNA Assessment. Ms. Teague and Mr. Blackam were assisted by Mr. Nick Woodford and Ms. Casey O'Farrell (from Coffey Environments) respectively.

Mrs. Ruth Jarman and Ms Meredith Burgon acted as the Auditor's representative on-site. Ms Meredith Burgon and Ms. Rebekah Fynnaart and Mrs. Ruth Jarman assisted in the preparation of the CUTEP Submission and Audit report.

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Figures

Environmental Audit Report
33 Jack Road, Cheltenham, Victoria, 3192



peraco	N	Drawing Number: **J8427-2**	Client: **Jack Road Investments Pty Ltd**
		Revision: **A**	Site: 33 Jack Road, Cheltenham
		Date: **11/09/14**	Title: Figure 1 - Site Location
		Author: **LZ** Checked by: **MB**	
		Data Source:	



Surrounding Audit Sites and Notable Features

Address: 33 Jack Road Cheltenham
Prepared by: LRM Global Pty Ltd
Prepared For: Jack Rd Investments Pty Ltd
Date: 04/09/2014 **Source:** Google Earth
Note: Figure only shows known contaminants on properties bordering the site.

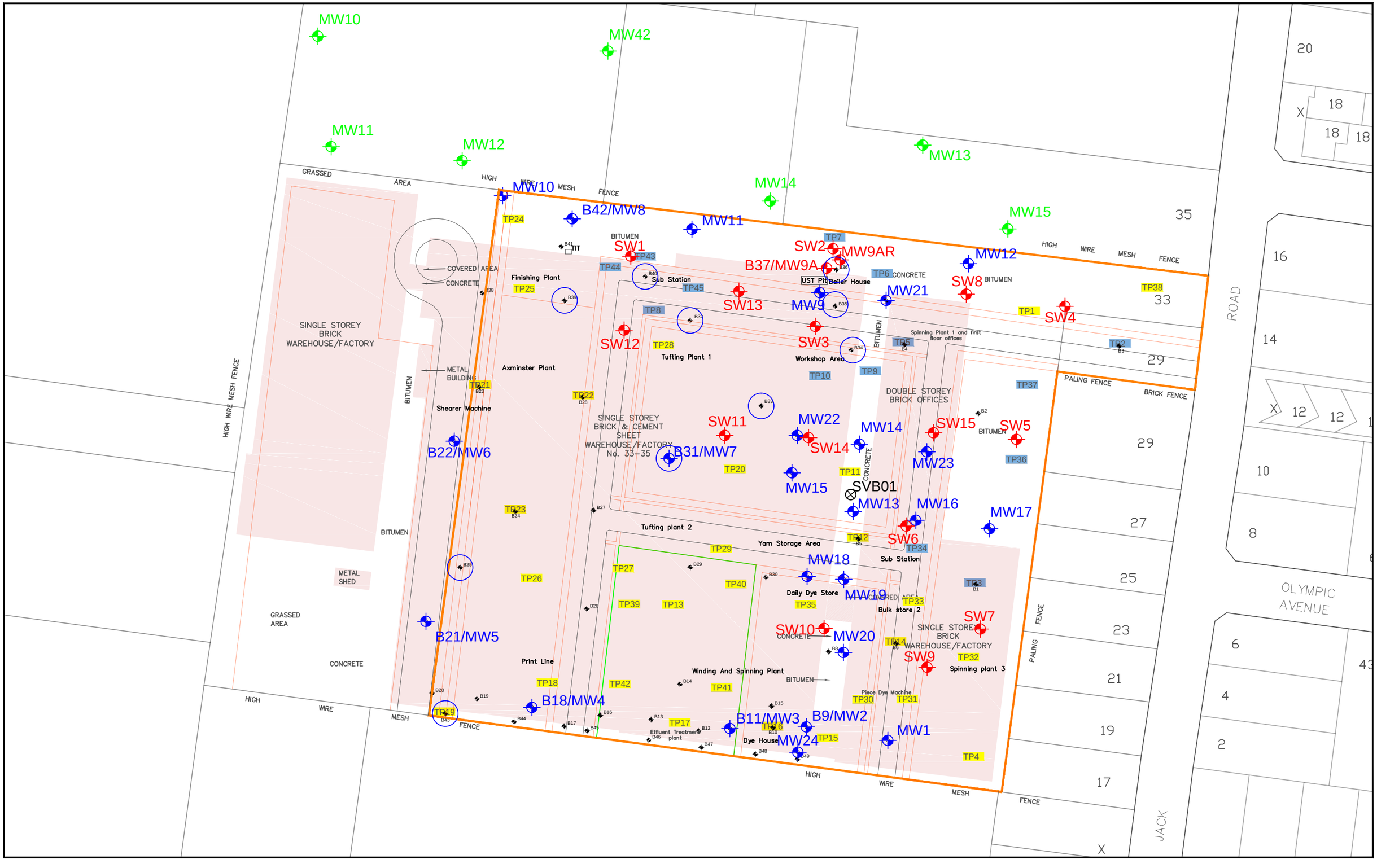
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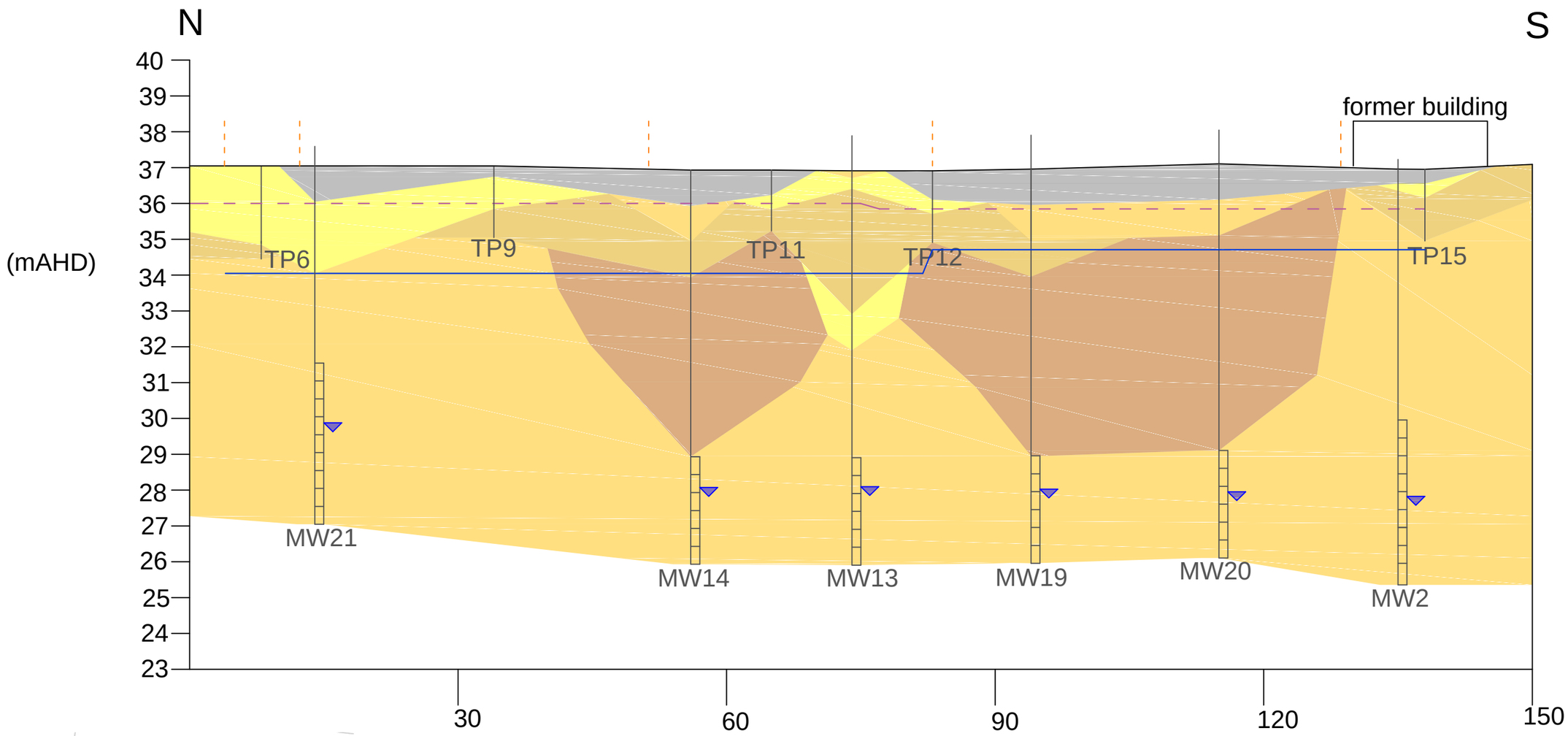
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Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	Checked by: **MB**
Data Source: **LRM Global**	

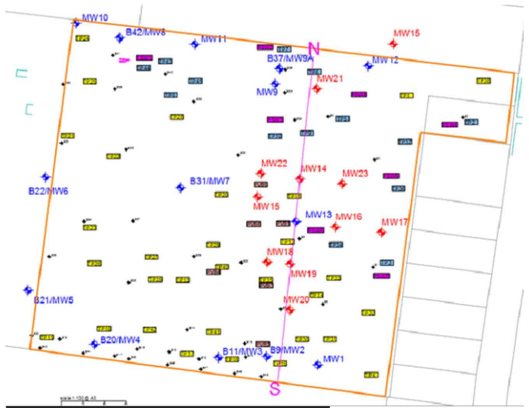
Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 2 - Surrounding Audit Sites



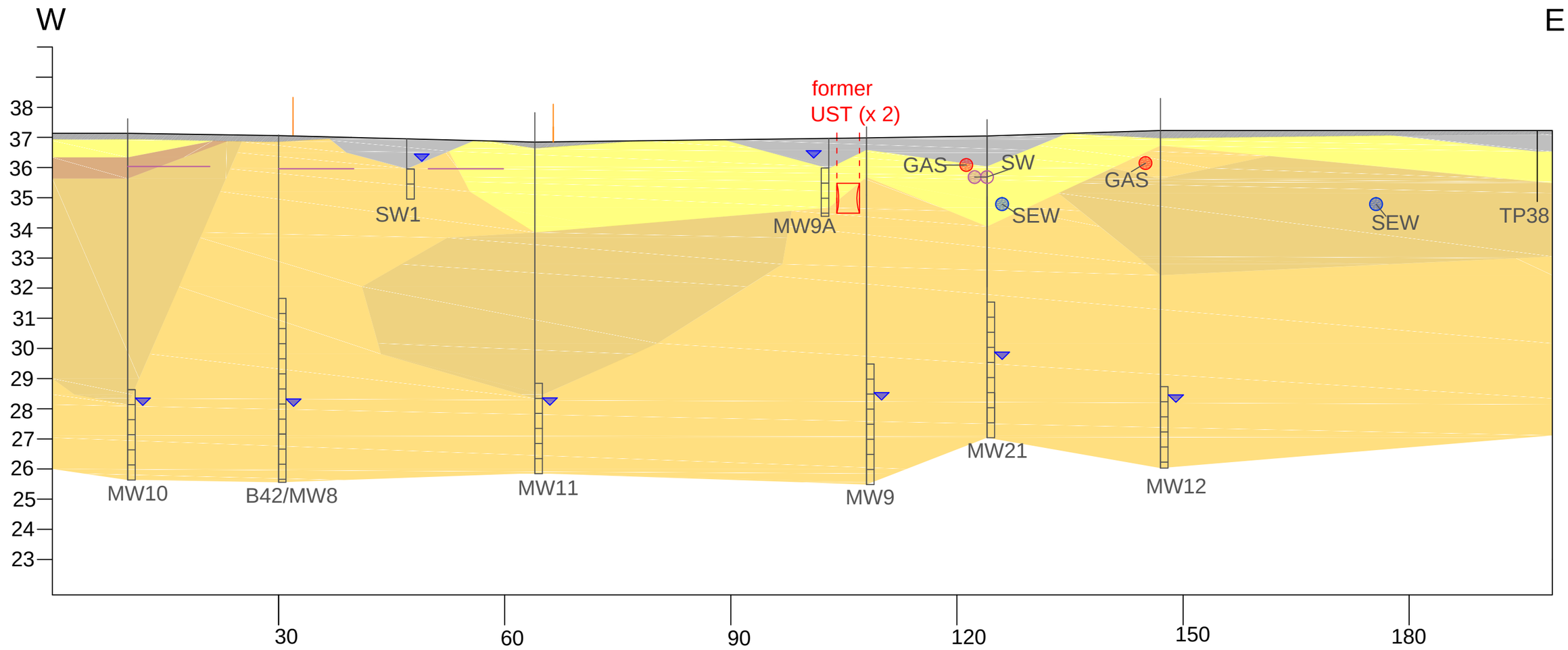
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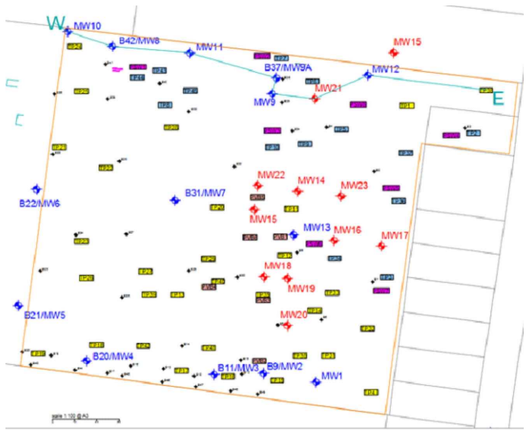
Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 3 - Sample Locations





peraco	*Drawing Number:* **J8427-2**	LEGEND	*Client* **Jack Road Investments Pty Ltd**
	Revision: **A**	FILL; CLAY; SANDY CLAY/ CLAYEY SAND; SILTY CLAY; SAND; GROUND WATER ELEVATION; SEWER (no longer intact) 500mm Ø; STORM WATER MAIN (no longer intact)375mm Ø; GATIC PIT (excavated from site)	*Site* 33 Jack Road, Cheltenham
	Date: **11/09/14**		*Title* Figure 4 - Hydrogeological Cross Section, North -South
	Author: **LZ** *Checked by:* **MB**		
	Data Source: **LRM Global, 10172, 25/08/14**		





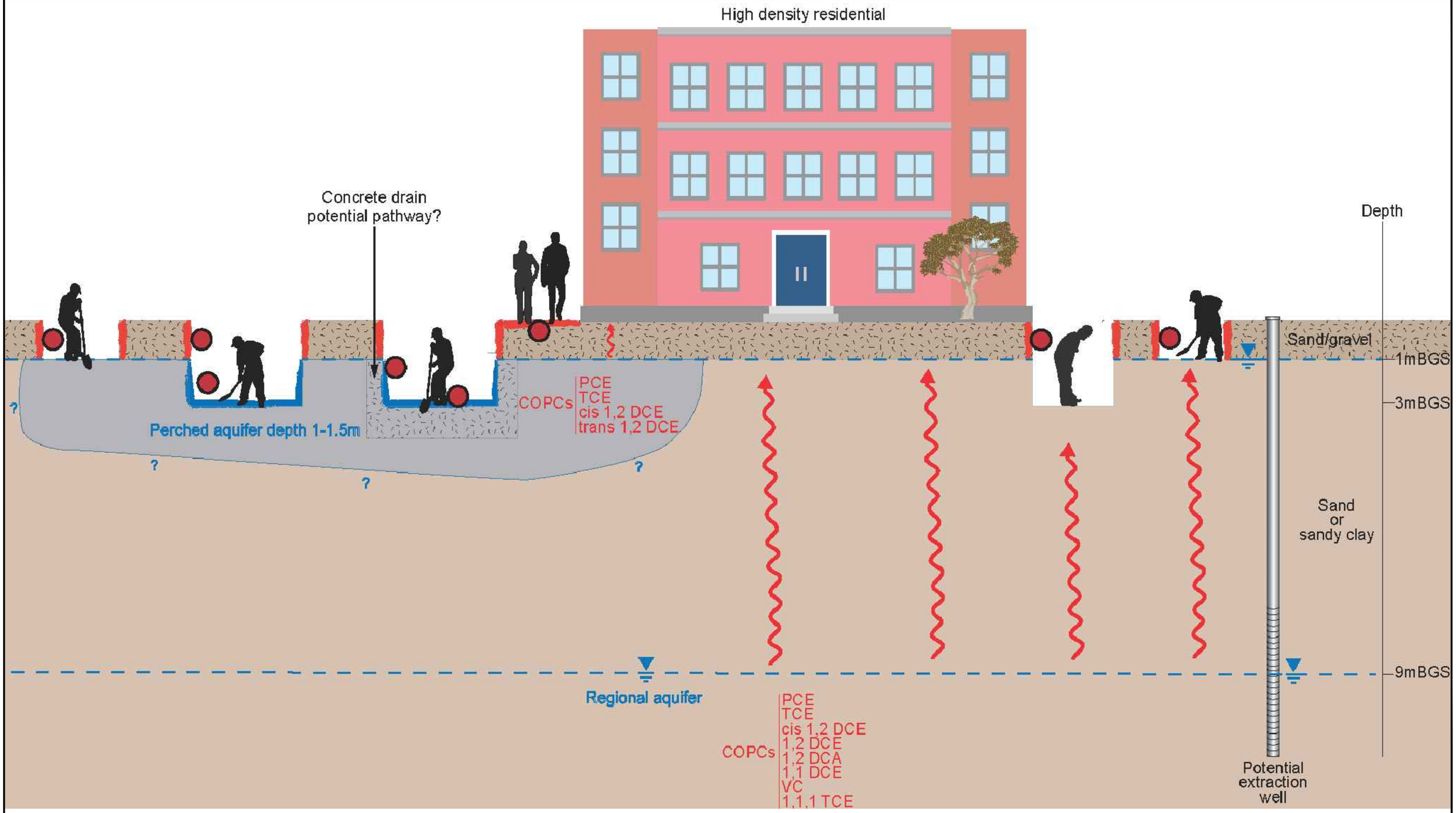
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Drawing Number: **J8427-2**	
Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **LRM Global, 10172, 25/08/14**	

LEGEND

- FILL
- CLAY
- SANDY CLAY/ CLAYEY SAND
- SILTY CLAY
- SAND
- GROUND WATER ELEVATION (AUGUST 2014)
- SEWER 500mm Ø
- STORM WATER MAIN 375mm Ø
- GATIC PIT (excavated from site)
- GAS

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 5 - Hydrogeological Cross Section, West-East



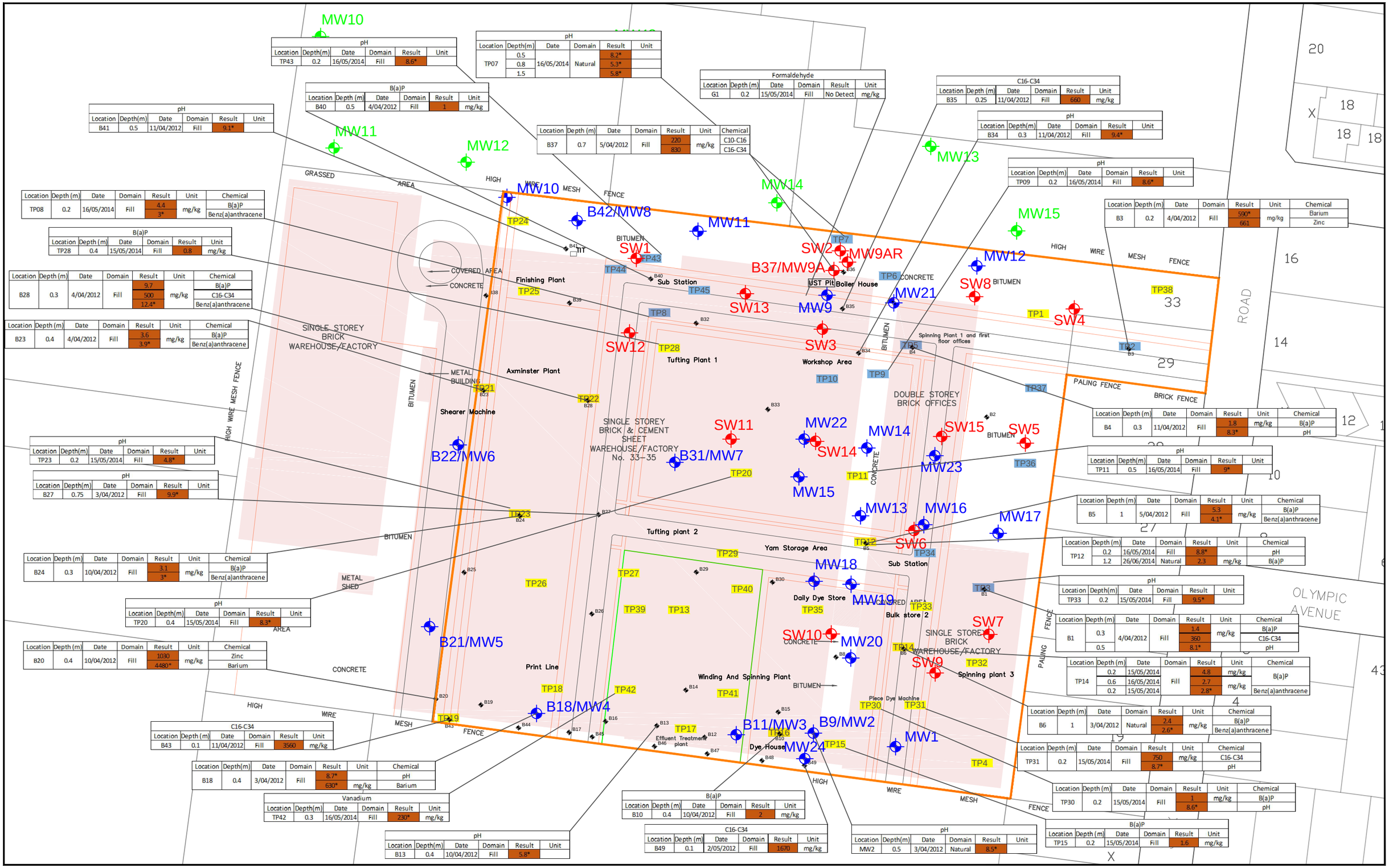
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Drawing Number:	J8427-2
Revision:	A
Date:	11/09/14
Author:	LZ
Checked by:	MB
Data Source:	LRM Global

LEGEND

- Direct contact
- Inhalation vapours
- Subsurface water seepage
- Impacted soil

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 6 - Conceptual Site Model



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Drawing Number: **J8427-2**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP

TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP

ENVIRONMENTAL AUDIT BOUNDARY

PROPOSED SITE CONSTRUCTION

PROPOSED OPEN SURFACE AREA

SHALLOW GROUNDWATER WELL

OFFSITE GROUNDWATER WELL

DEEP GROUNDWATER WELL

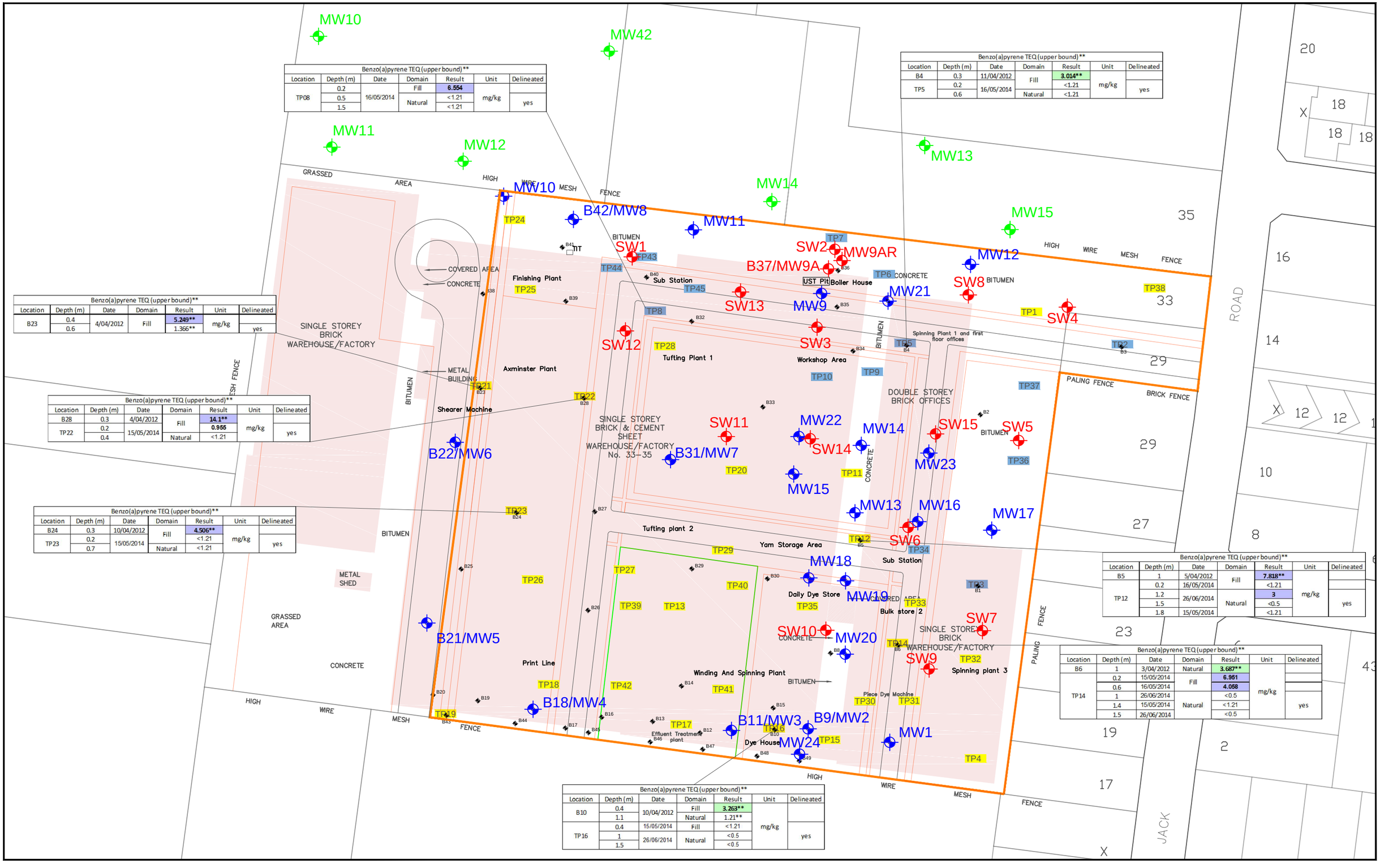
SOIL BORE

HISTORIC BUILDING OUTLINE

Exceeds NEPM ESL

* ADOPTED CRITERIA CANADIAN SOIL QUALITY GUIDELINES

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 7 - Soil Exceedances - EIL/ESL



Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
TP08	0.2	16/05/2014	Fill	6.554	mg/kg	yes
	0.5		Natural	<1.21		
	1.5			<1.21		

Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
B4	0.3	11/04/2012	Fill	3.014**	mg/kg	yes
TP5	0.2	16/05/2014		<1.21		
	0.6		Natural	<1.21		

Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
B23	0.4	4/04/2012	Fill	5.249**	mg/kg	yes
	0.6			1.366**		

Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
B28	0.3	4/04/2012	Fill	14.1**	mg/kg	yes
TP22	0.2	15/05/2014		0.955		
	0.4		Natural	<1.21		

Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
B24	0.3	10/04/2012	Fill	4.506**	mg/kg	yes
TP23	0.2	15/05/2014		<1.21		
	0.7		Natural	<1.21		

Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
B10	0.4	10/04/2012	Fill	3.263**	mg/kg	yes
	1.1		Natural	1.21**		
TP16	0.4	15/05/2014	Fill	<1.21		
	1	26/06/2014	Natural	<0.5		
	1.5			<0.5		

Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
B5	1	5/04/2012	Fill	7.818**	mg/kg	yes
TP12	0.2	16/05/2014		<1.21		
	1.2	26/06/2014	Natural	3		
	1.5			<0.5		
	1.8	15/05/2014		<1.21		

Benzo(a)pyrene TEQ (upper bound)**						
Location	Depth (m)	Date	Domain	Result	Unit	Delineated
B6	1	3/04/2012	Natural	3.687**	mg/kg	yes
TP14	0.2	15/05/2014	Fill	6.951		
	0.6	16/05/2014		4.058		
	1	26/06/2014	Natural	<0.5		
	1.4	15/05/2014		<1.21		
	1.5	26/06/2014		<0.5		

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Drawing Number: **J8427-2**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP

TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP

ENVIRONMENTAL AUDIT BOUNDARY

PROPOSED SITE CONSTRUCTION

PROPOSED OPEN SURFACE AREA

SHALLOW GROUNDWATER WELL

OFFSITE GROUNDWATER WELL

DEEP GROUNDWATER WELL

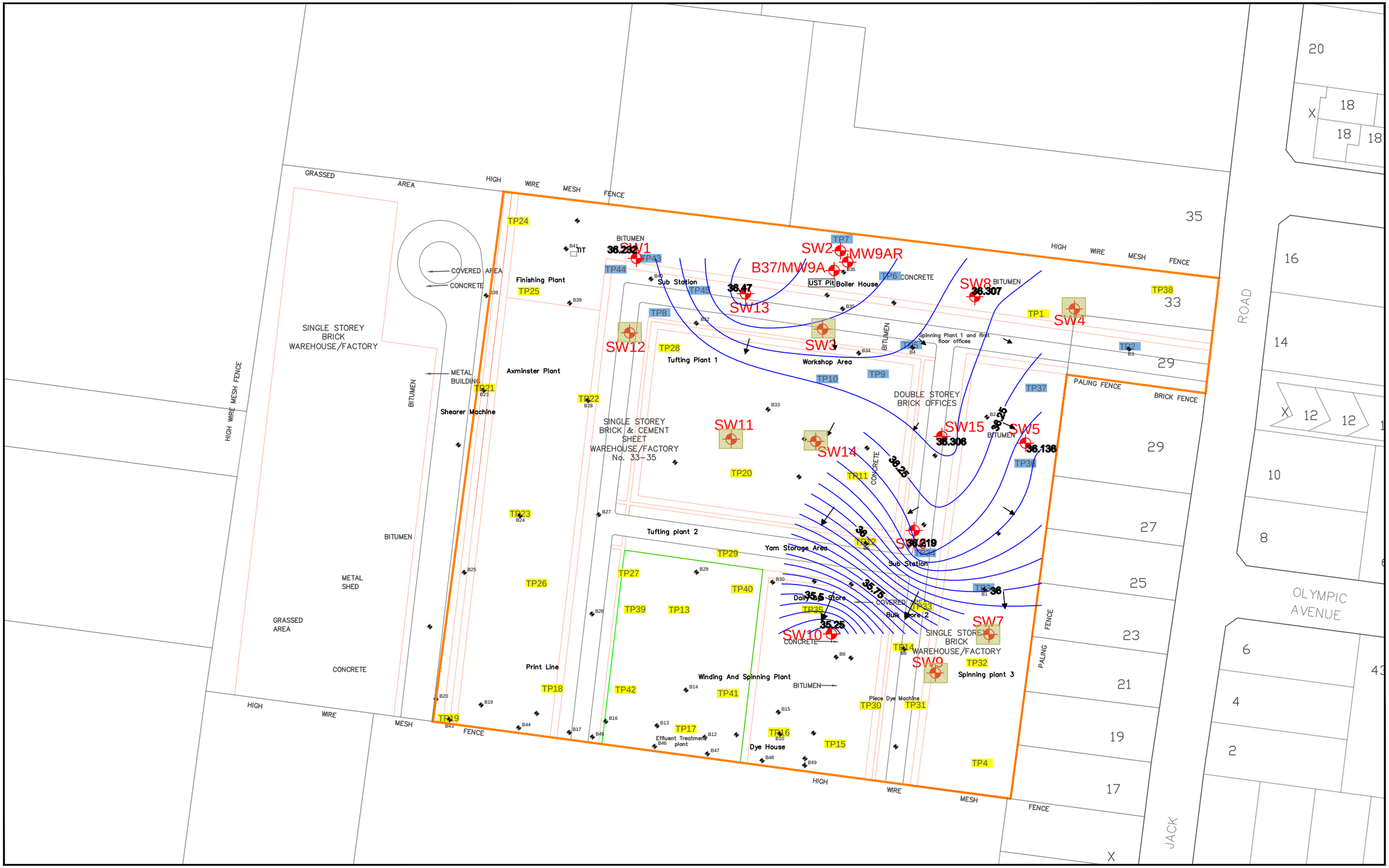
SOIL BORE

HISTORIC BUILDING OUTLINE

Exceeds		
NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil

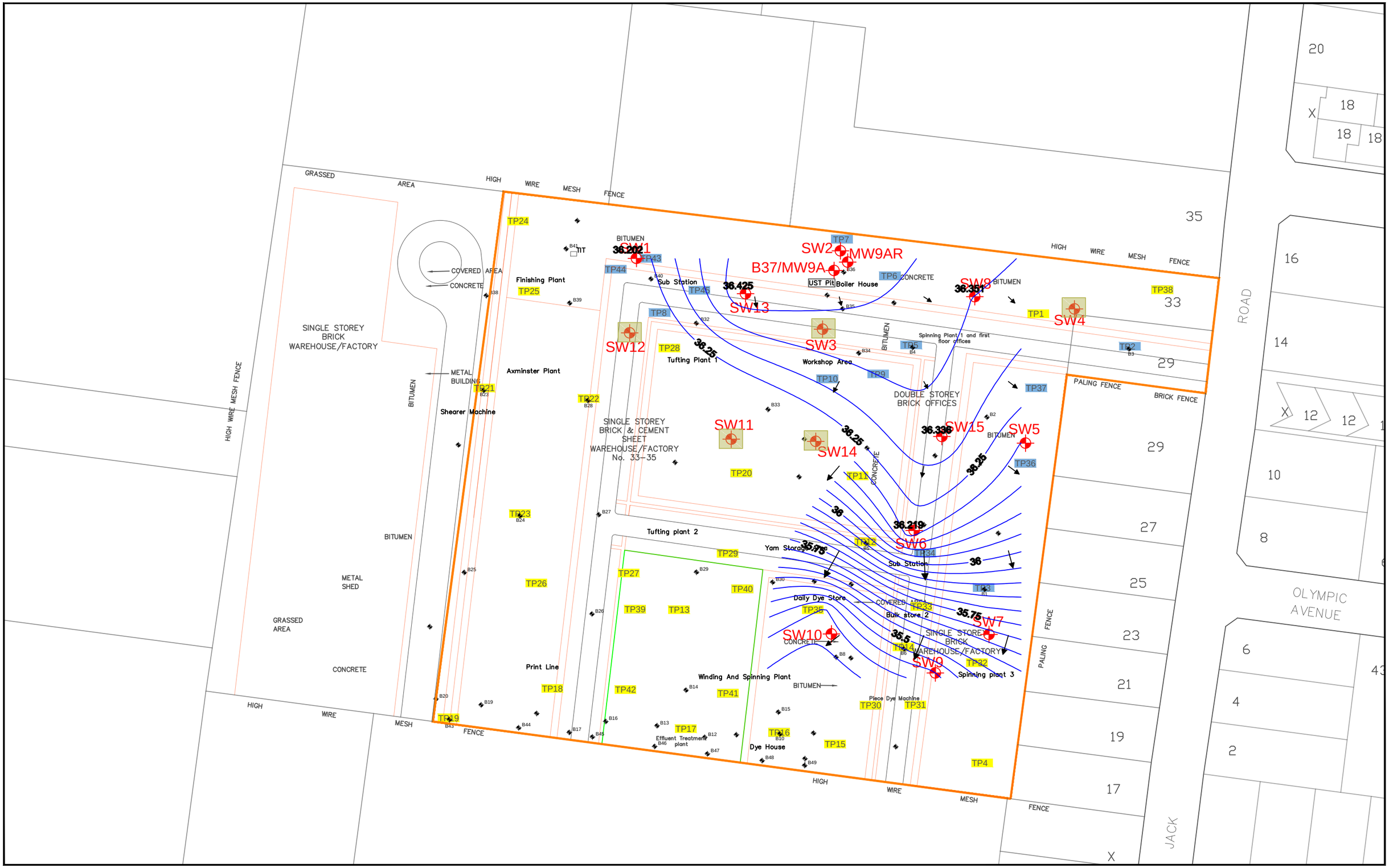
** CALCULATED BY LRM

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 8 - Soil Exceedances - HIL



peraco	0 10 20 m 1:1000 N	*Drawing Number:* **J8427-2** *Revision:* **A** *Date:* **11/09/14** *Author:* **LZ** *Checked by:* **MB** *Data Source:* **LRM Global, 10172, 25/08/14**	TEST PIT LOCATION TP TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP GROUNDWATER CONTOURS (mAHD) ENVIRONMENTAL AUDIT BOUNDARY PROPOSED SITE CONSTRUCTION PROPOSED OPEN SURFACE AREA SHALLOW GROUNDWATER WELL SOIL BORE DIRECTION OF GROUNDWATER FLOW DRY SHALLOW WELL NOTE* GROUNDWATER CONTOUR DOES NOT INCLUDE DATA FROM MW9AR AND SW2

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 9 - Groundwater Contour Plan, Perched Aquifer (July 2014)



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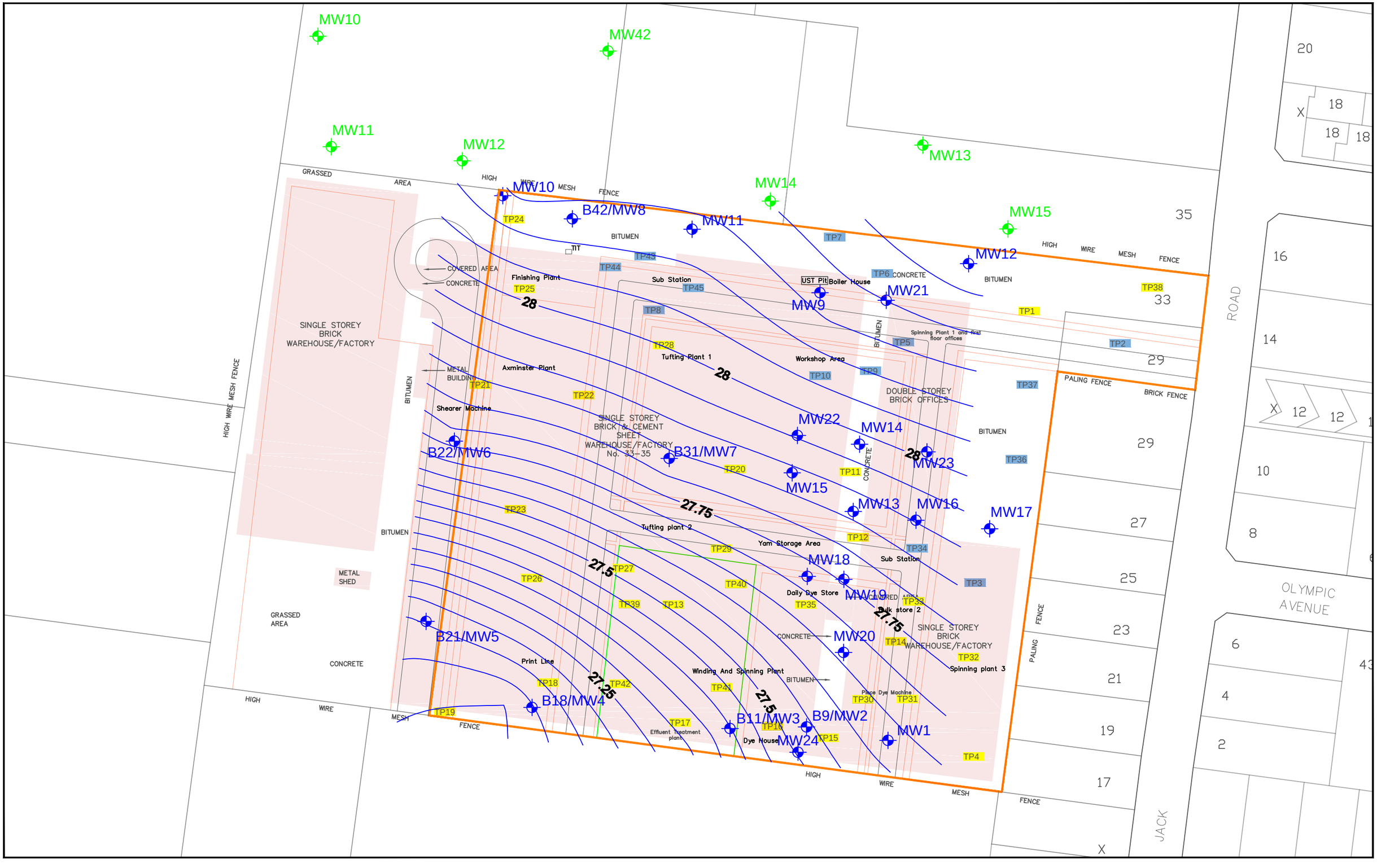
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Drawing Number: **J8427-2**	
Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **LRM Global, 10172, 25/08/14**	

TEST PIT LOCATION TP
TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP
GROUNDWATER CONTOURS (mAHD)
ENVIRONMENTAL AUDIT BOUNDARY
PROPOSED SITE CONSTRUCTION
PROPOSED OPEN SURFACE AREA
SHALLOW GROUNDWATER WELL
SOIL BORE
DIRECTION OF GROUNDWATER FLOW
DRY SHALLOW WELL
NOTE* GROUNDWATER CONTOUR DOES NOT INCLUDE DATA FROM MW9AR AND SW2

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 10 - Groundwater Contour Plan, Perched Aquifer (August 2014)



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Drawing Number: **J8427-2**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP

TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP

GROUNDWATER CONTOURS (mAHD)

ENVIRONMENTAL AUDIT BOUNDARY

PROPOSED SITE CONSTRUCTION

PROPOSED OPEN SURFACE AREA

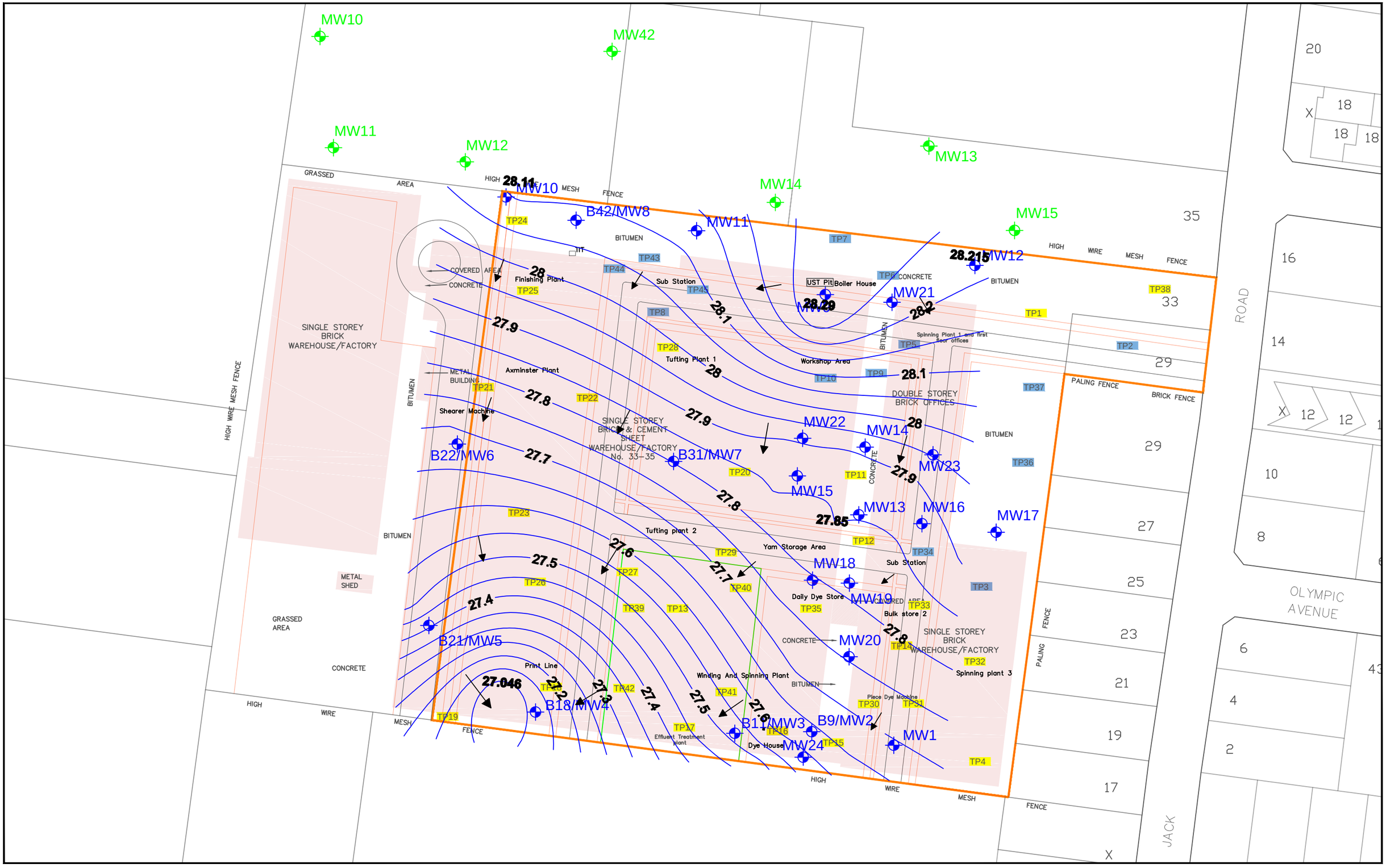
OFFSITE GROUNDWATER WELL

DEEP GROUNDWATER WELL

HISTORIC BUILDING OUTLINE

DIRECTION OF GROUNDWATER FLOW

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 11 - Groundwater Contour Plan, Deep Aquifer (April 2014)



peraco

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Drawing Number: **J8427-2**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP

TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP

GROUNDWATER CONTOURS (mAHD)

ENVIRONMENTAL AUDIT BOUNDARY

PROPOSED SITE CONSTRUCTION

PROPOSED OPEN SURFACE AREA

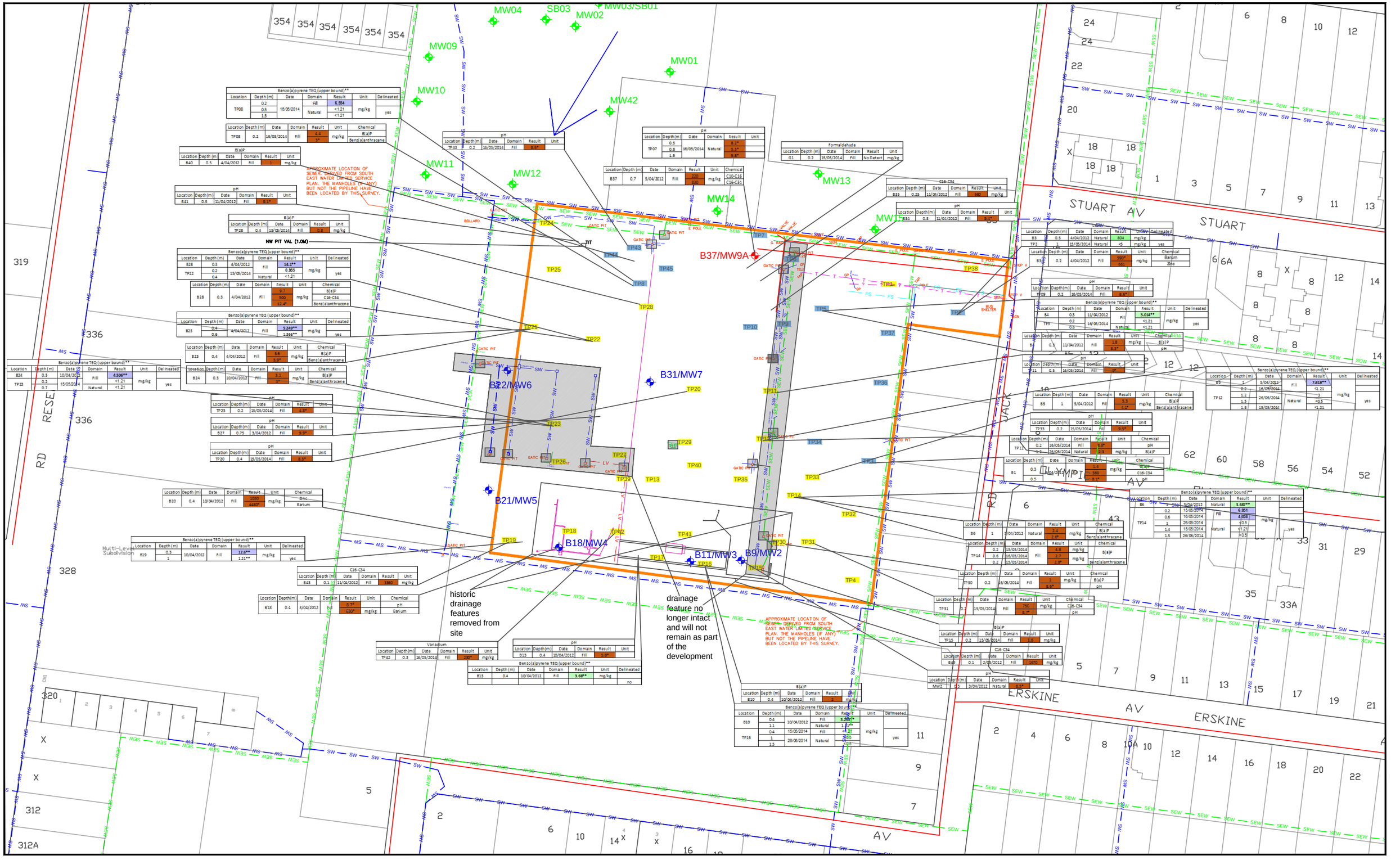
OFFSITE GROUNDWATER WELL

DEEP GROUNDWATER WELL

HISTORIC BUILDING OUTLINE

DIRECTION OF GROUNDWATER FLOW

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 12 - Groundwater Contour Plan, Deep Aquifer (August 2014)



peraco

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Drawing Number: **J8427-2**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

- SEW — SEW — SOUTH EAST WATER SEWER
- SW — SW — BAYSIDE CITY COUNCIL DRAINAGE
- UNITED ENERGY DISTRIBUTION
- MULTINET GAS
- PIPENETWORK DUCT
- T — T — T — TELSTRA
- UNKNOWN
- ENVIRONMENTAL AUDIT BOUNDARY
- HISTORICAL DRAINAGE
- GATIC PITS EXCAVATED FROM SITE
- OFFSITE GROUNDWATER WELL

Exceeds		
NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil

Exceeds
NEPM ESL

* ADOPTED CRITERIA CANADIAN SOIL QUALITY GUIDELINES

** CALCULATED BY LRM

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 13 - On-site Services



peraco	0 30 60 m 1:3000 N	*Drawing Number:* **J8427-2** *Revision:* **A** *Date:* **11/09/14** *Author:* **LZ** *Checked by:* **MB** *Data Source:* **LRM Global, 10172, 25/08/14**	SEW SEW SOUTH EAST WATER SEWER SW SW BAYSIDE CITY COUNCIL DRAINAGE UNITED ENERGY DISTRIBUTION MULTINET GAS PIPENETWORK DUCT T T T TELSTRA UNKNOWN ENVIRONMENTAL AUDIT BOUNDARY HISTORICAL DRAINAGE GATIC PITS EXCAVATED FROM SITE OFFSITE GROUNDWATER WELL INFERRED GROUNDWATER FLOW DIRECTION 18-22 HAMLET ST

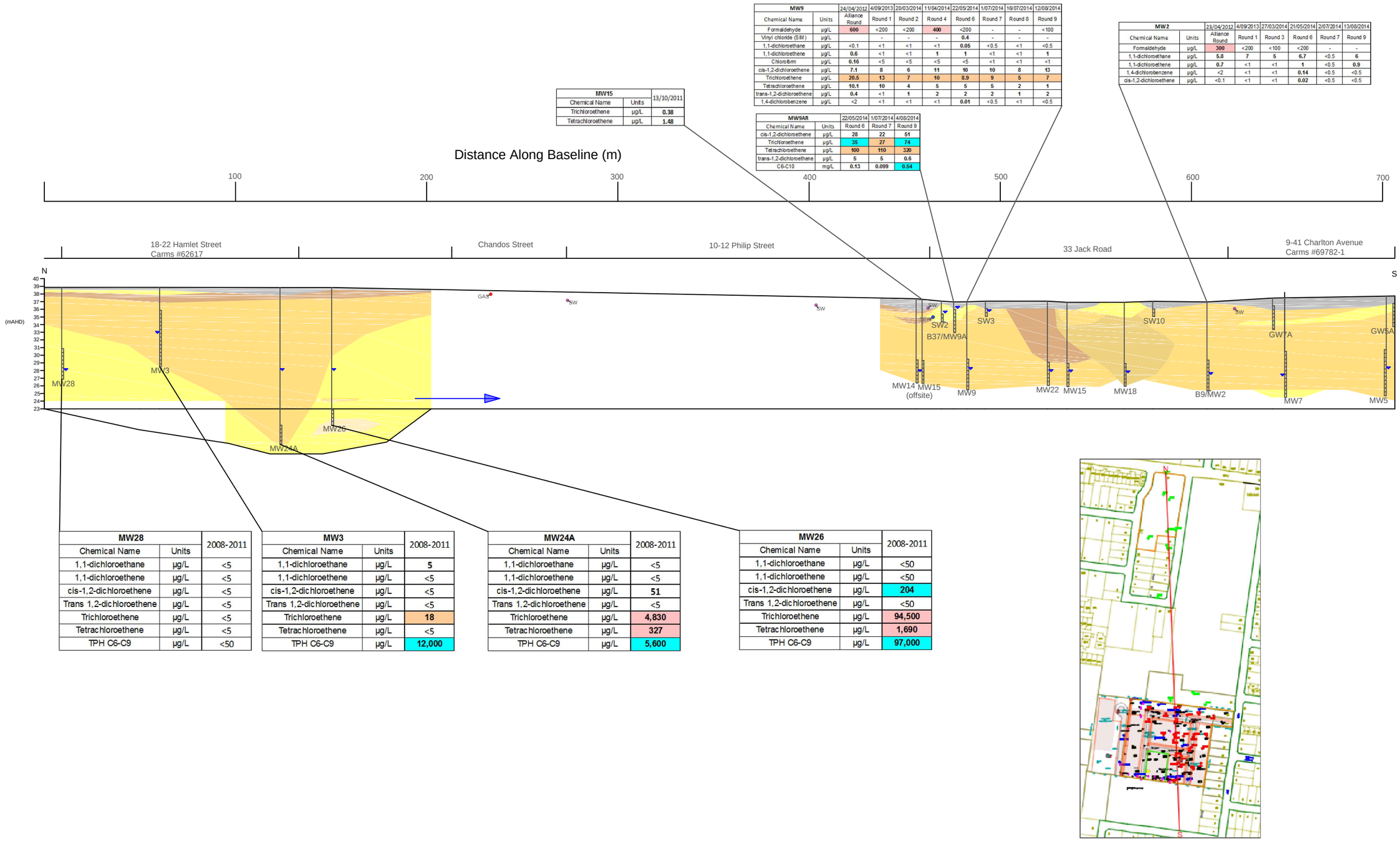
Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 14 - Off-site Services

MW15		13/10/2011
Chemical Name	Units	
Trichloroethene	µg/L	0.38
Tetrachloroethene	µg/L	1.48

MW9		24/04/2012	4/09/2013	20/03/2014	11/04/2014	22/05/2014	1/07/2014	16/07/2014	12/09/2014
Chemical Name	Units	Alliance Round	Round 1	Round 2	Round 4	Round 6	Round 7	Round 8	Round 9
Formaldehyde	µg/L	600	<200	<200	400	<200	-	-	<100
Vinyl chloride (S/M)	µg/L		-	-	-	0.4	-	-	-
1,1-dichloroethane	µg/L	<0.1	<1	<1	<1	0.05	<0.5	<1	<0.5
1,1-dichloroethene	µg/L	0.6	<1	<1	1	1	<1	<1	1
Chloroform	µg/L	0.16	<5	<5	<5	<5	<1	<1	<1
cis-1,2-dichloroethene	µg/L	7.1	8	6	11	10	10	8	13
Trichloroethene	µg/L	20.5	13	7	10	8.9	9	5	7
Tetrachloroethene	µg/L	10.1	10	4	5	5	5	2	1
trans-1,2-dichloroethene	µg/L	0.4	<1	1	2	2	2	1	2
1,4-dichlorobenzene	µg/L	<2	<1	<1	<1	0.01	<0.5	<1	<0.5

MW9AR		22/05/2014	1/07/2014	4/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
cis-1,2-dichloroethene	µg/L	28	22	51
Trichloroethene	µg/L	35	27	74
Tetrachloroethene	µg/L	100	110	320
trans-1,2-dichloroethene	µg/L	5	5	0.6
C6-C10	mg/L	0.13	0.099	0.54

MW2		23/04/2012	4/09/2013	27/03/2014	21/05/2014	2/07/2014	13/08/2014
Chemical Name	Units	Alliance Round	Round 1	Round 3	Round 6	Round 7	Round 9
Formaldehyde	µg/L	300	<200	<100	<200	-	-
1,1-dichloroethane	µg/L	5.8	7	5	6.7	<0.5	6
1,1-dichloroethene	µg/L	0.7	<1	<1	1	<0.5	0.9
1,4-dichlorobenzene	µg/L	<2	<1	<1	0.14	<0.5	<0.5
cis-1,2-dichloroethene	µg/L	<0.1	<1	<1	0.02	<0.5	<0.5



MW28		2008-2011
Chemical Name	Units	
1,1-dichloroethane	µg/L	<5
1,1-dichloroethene	µg/L	<5
cis-1,2-dichloroethene	µg/L	<5
Trans 1,2-dichloroethene	µg/L	<5
Trichloroethene	µg/L	<5
Tetrachloroethene	µg/L	<5
TPH C6-C9	µg/L	<50

MW3		2008-2011
Chemical Name	Units	
1,1-dichloroethane	µg/L	5
1,1-dichloroethene	µg/L	<5
cis-1,2-dichloroethene	µg/L	<5
Trans 1,2-dichloroethene	µg/L	<5
Trichloroethene	µg/L	18
Tetrachloroethene	µg/L	<5
TPH C6-C9	µg/L	12,000

MW24A		2008-2011
Chemical Name	Units	
1,1-dichloroethane	µg/L	<5
1,1-dichloroethene	µg/L	<5
cis-1,2-dichloroethene	µg/L	51
Trans 1,2-dichloroethene	µg/L	<5
Trichloroethene	µg/L	4,830
Tetrachloroethene	µg/L	327
TPH C6-C9	µg/L	5,600

MW26		2008-2011
Chemical Name	Units	
1,1-dichloroethane	µg/L	<50
1,1-dichloroethene	µg/L	<50
cis-1,2-dichloroethene	µg/L	204
Trans 1,2-dichloroethene	µg/L	<50
Trichloroethene	µg/L	94,500
Tetrachloroethene	µg/L	1,690
TPH C6-C9	µg/L	97,000

INFERRED GROUNDWATER FLOW DIRECTION

Exceeds			
Maintenance of Ecosystems	Acceptable Potable Water Supply	Agriculture, Parks and Gardens	Primary Contact Recreation

LEGEND

- FILL
- CLAY
- SANDY CLAY/ CLAYEY SAND
- SILTY CLAY
- SAND
- GROUND WATER ELEVATION
- SEWER 500mm Ø
- STORM WATER MAIN 375mm Ø
- GAS

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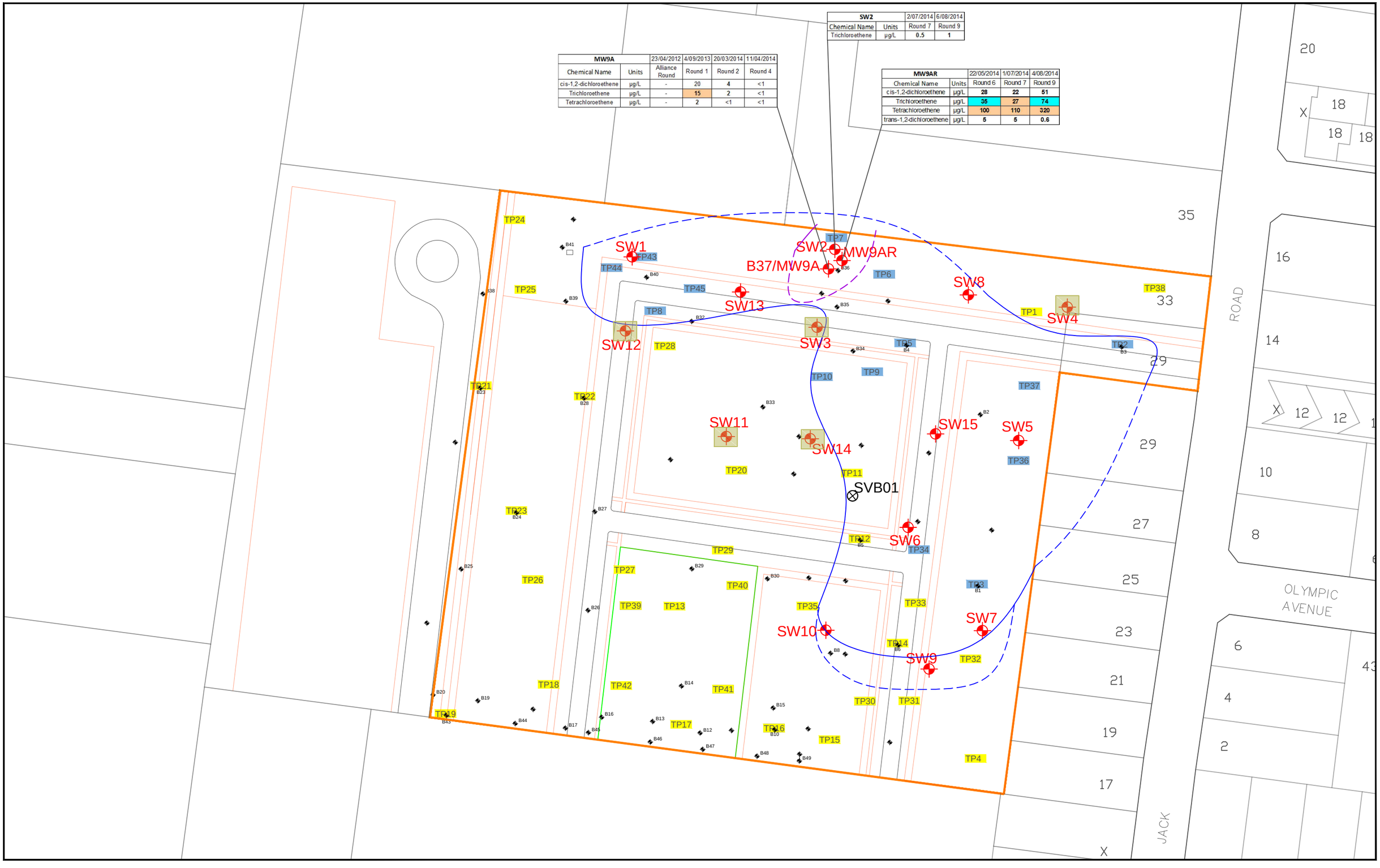
Drawing Number: **J8427-2**
Revision: **A**
Date: **11/09/14**
Author: **LZ** *Checked by:* **MB**
Data Source: **LRM Global, 10172, 25/08/14**

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 15 - Hydrogeological Cross Section and Regional Groundwater Impacts

MW9A		23/04/2012	4/09/2013	20/03/2014	11/04/2014
Chemical Name	Units	Alliance Round	Round 1	Round 2	Round 4
cis-1,2-dichloroethene	µg/L	-	20	4	<1
Trichloroethene	µg/L	-	15	2	<1
Tetrachloroethene	µg/L	-	2	<1	<1

SW2		2/07/2014	6/08/2014
Chemical Name	Units	Round 7	Round 9
Trichloroethene	µg/L	0.5	1

MW9AR		22/05/2014	1/07/2014	4/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
cis-1,2-dichloroethene	µg/L	28	22	51
Trichloroethene	µg/L	35	27	74
Tetrachloroethene	µg/L	100	110	320
trans-1,2-dichloroethene	µg/L	5	5	0.6



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Drawing Number: **J8427-2**
Revision: **A**
Date: **11/09/14**
Author: **LZ** *Checked by:* **MB**
Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP
TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP
TRICHLOROETHENE PLUME
INFERRED SHALLOW GROUNDWATER AQUIFER
ENVIRONMENTAL AUDIT BOUNDARY
PROPOSED SITE CONSTRUCTION
PROPOSED OPEN SURFACE AREA
SHALLOW GROUNDWATER WELL
SOIL BORE
DRY SHALLOW WELL

Exceeds				
Maintenance of Ecosystems	Acceptable Potable Water Supply	Agriculture, Parks and Gardens	Stock Watering	Primary Contact Recreation

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 16 - Groundwater Impacts, Perched Aquifer: VCHs

MW9A		23/04/2012	4/09/2013	20/03/2014	11/04/2014
Chemical Name	Units	Alliance Round	Round 1	Round 2	Round 4
C6-C10	µg/L	**30**	**20**	<20	<20

MW9AR		22/05/2014	1/07/2014	4/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
C6-C10	µg/L	**130**	**99**	**540**

SW8		2/07/2014	4/08/2014
Chemical Name	Units	Round 7	Round 9
C10-C16	µg/L	<50	**160**
C16-C34	µg/L	**300**	**1600**
C34-C40	µg/L	<100	**340**
C10 - C40 (Sum of total)	µg/L	**300**	**2100**

SW15		3/07/2014	6/08/2014
Chemical Name	Units	Round 7	Round 9
C16-C34	µg/L	**130**	**1500**
C34-C40	µg/L	<100	**320**
C10 - C40 (Sum of total)	µg/L	**130**	**1820**

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Drawing Number: **J8427-2**

Revision: **A**

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Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP

TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP

TPH PLUME

INFERRED SHALLOW GROUNDWATER AQUIFER

ENVIRONMENTAL AUDIT BOUNDARY

PROPOSED SITE CONSTRUCTION

PROPOSED OPEN SURFACE AREA

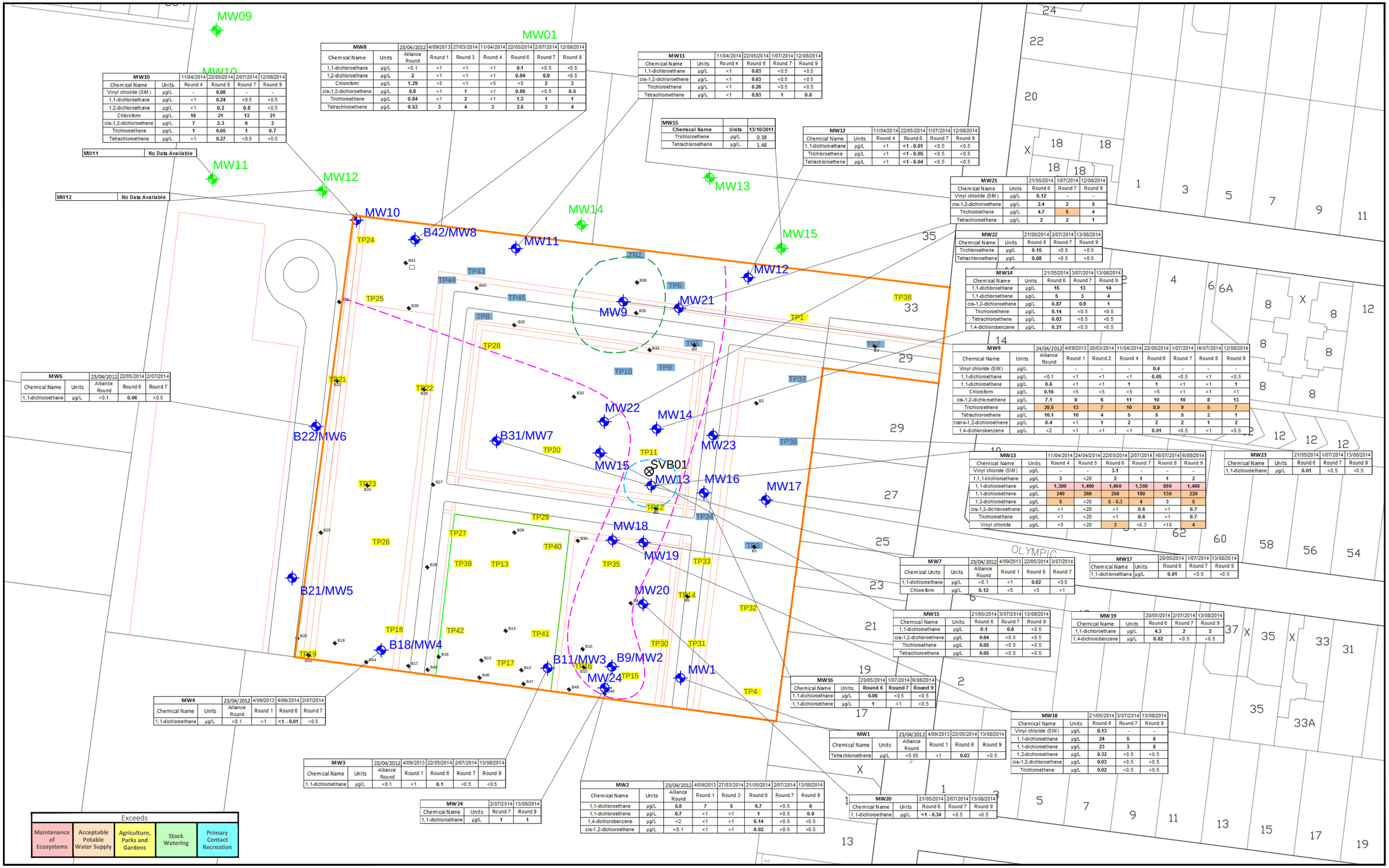
SHALLOW GROUNDWATER WELL

SOIL BORE

DRY SHALLOW WELL

Exceeds				
Maintenance of Ecosystems	Acceptable Potable Water Supply	Agriculture, Parks and Gardens	Stock Watering	Primary Contact Recreation

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 17 - Groundwater Impacts, Perched Aquifer: TRHs



MW10		11/04/2014	22/05/2014	2/07/2014	12/08/2014
Chemical Name	Units	Round 4	Round 6	Round 7	Round 9
Vinyl chloride (SIM)	µg/L	-	**0.08**	-	-
1,1-dichloroethane	µg/L	<1	**0.24**	<0.5	<0.5
1,2-dichloroethane	µg/L	<1	**0.2**	**0.8**	<0.5
Chloroform	µg/L	**16**	**21**	**13**	**21**
cis-1,2-dichloroethene	µg/L	**7**	**2.3**	**6**	**2**
Trichloroethene	µg/L	**1**	**0.65**	**1**	**0.7**
Tetrachloroethene	µg/L	<1	**0.27**	<0.5	<0.5

MW11	No Data Available

MW12	No Data Available

MW8		23/04/2012	4/09/2013	27/03/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014
Chemical Name	Units	Alliance Round	Round 1	Round 3	Round 4	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	<0.1	<1	<1	<1	**0.1**	<0.5	<0.5
1,2-dichloroethane	µg/L	**2**	<1	<1	<1	**0.04**	**0.9**	<0.5
Chloroform	µg/L	**1.29**	<5	<1	<5	<5	**2**	**3**
cis-1,2-dichloroethene	µg/L	**0.8**	<1	**1**	<1	**0.86**	<0.5	**0.5**
Trichloroethene	µg/L	**0.84**	<1	**2**	<1	**1.3**	**1**	**1**
Tetrachloroethene	µg/L	**0.53**	**3**	**4**	**3**	**2.5**	**3**	**4**

MW11		11/04/2014	22/05/2014	1/07/2014	12/08/2014
Chemical Name	Units	Round 4	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	<1	**0.03**	<0.5	<0.5
cis-1,2-dichloroethene	µg/L	<1	**0.03**	<0.5	<0.5
Trichloroethene	µg/L	<1	**0.26**	<0.5	<0.5
Tetrachloroethene	µg/L	<1	**0.93**	**1**	**0.8**

MW15		
Chemical Name	Units	13/10/2011
Trichloroethene	µg/L	0.38
Tetrachloroethene	µg/L	1.48

MW12		11/04/2014	22/05/2014	1/07/2014	12/08/2014
Chemical Name	Units	Round 4	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	<1	**<1 - 0.01**	<0.5	<0.5
Trichloroethene	µg/L	<1	**<1 - 0.05**	<0.5	<0.5
Tetrachloroethene	µg/L	<1	**<1 - 0.04**	<0.5	<0.5

MW21		21/05/2014	1/07/2014	12/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
Vinyl chloride (SIM)	µg/L	**0.12**	-	-
cis-1,2-dichloroethene	µg/L	**2.4**	**2**	**5**
Trichloroethene	µg/L	**4.7**	**5**	**4**
Tetrachloroethene	µg/L	**2**	**2**	**1**

MW22		21/05/2014	2/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
Trichloroethene	µg/L	**0.15**	<0.5	<0.5
Tetrachloroethene	µg/L	**0.08**	<0.5	<0.5

MW14		21/05/2014	3/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
1,1-dichloroethene	µg/L	**15**	**13**	**14**
1,1-dichloroethene	µg/L	**5**	**3**	**4**
cis-1,2-dichloroethene	µg/L	**0.87**	**0.9**	**1**
Trichloroethene	µg/L	**0.14**	<0.5	<0.5
Tetrachloroethene	µg/L	**0.03**	<0.5	<0.5
1,4-dichlorobenzene	µg/L	**0.21**	<0.5	<0.5

MW9		24/04/2012	4/09/2013	20/03/2014	11/04/2014	22/05/2014	1/07/2014	16/07/2014	12/08/2014
Chemical Name	Units	Alliance Round	Round 1	Round 2	Round 4	Round 6	Round 7	Round 8	Round 9
Vinyl chloride (SIM)	µg/L		-	-	-	**0.4**	-	-	-
1,1-dichloroethane	µg/L	<0.1	<1	<1	<1	**0.05**	<0.5	<1	<0.5
1,1-dichloroethene	µg/L	**0.6**	<1	<1	**1**	**1**	<1	<1	**1**
Chloroform	µg/L	**0.16**	<5	<5	<5	<5	<1	<1	<1
cis-1,2-dichloroethene	µg/L	**7.1**	**8**	**6**	**11**	**10**	**10**	**8**	**13**
Trichloroethene	µg/L	**20.5**	**13**	**7**	**10**	**8.9**	**9**	**5**	**7**
Tetrachloroethene	µg/L	**10.1**	**10**	**4**	**5**	**5**	**5**	**2**	**1**
trans-1,2-dichloroethene	µg/L	**0.4**	<1	**1**	**2**	**2**	**2**	**1**	**2**
1,4-dichlorobenzene	µg/L	<2	<1	<1	<1	**0.01**	<0.5	<1	<0.5

MW13		11/04/2014	24/04/2014	22/05/2014	2/07/2014	16/07/2014	6/08/2014
Chemical Name	Units	Round 4	Round 5	Round 6	Round 7	Round 8	Round 9
Vinyl chloride (SIM)	µg/L	-	-	**3.1**	-	-	-
1,1,1-trichloroethane	µg/L	3	<20	**2**	**1**	**1**	**2**
1,1-dichloroethane	µg/L	**1,300**	**1,400**	**1,400**	**1,300**	**890**	**1,400**
1,1-dichloroethene	µg/L	**240**	**260**	**250**	**180**	**130**	**220**
1,2-dichloroethane	µg/L	**5**	<20	**5 - 5.3**	**4**	**3**	**5**
cis-1,2-dichloroethene	µg/L	<1	<20	<1	**0.6**	<1	**0.7**
Trichloroethene	µg/L	<1	<20	<1	**0.6**	<1	**0.7**
Vinyl chloride	µg/L	<5	<20	**3**	<0.3	<10	**4**

MW23		21/05/2014	1/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
1,1-dichloroethene	µg/L	**0.01**	<0.5	<0.5

MW7		23/04/2012	4/09/2013	22/05/2014	3/07/2014
Chemical Units	Units	Alliance Round	Round 1	Round 6	Round 7
1,1-dichloroethane	µg/L	<0.1	<1	**0.02**	<0.5
Chloroform	µg/L	**0.12**	<5	<5	<1

MW17		20/05/2014	1/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	**0.01**	<0.5	<0.5

MW15		21/05/2014	3/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
1,1-dichloroethene	µg/L	**0.1**	**0.8**	<0.5
cis-1,2-dichloroethene	µg/L	**0.04**	<0.5	<0.5
Trichloroethene	µg/L	**0.05**	<0.5	<0.5
Tetrachloroethene	µg/L	**0.05**	<0.5	<0.5

MW19		20/05/2014	2/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	**4.3**	**2**	**2**
1,4-dichlorobenzene	µg/L	**0.02**	<0.5	<0.5

MW6		23/04/2012	22/05/2014	2/07/2014
Chemical Name	Units	Alliance Round	Round 6	Round 7
1,1-dichloroethane	µg/L	<0.1	**0.06**	<0.5

MW4		23/04/2012	4/09/2013	4/06/2014	2/07/2014
Chemical Name	Units	Alliance Round	Round 1	Round 6	Round 7
1,1-dichloroethane	µg/L	<0.1	<1	**<1 - 0.01**	<0.5

MW3		23/04/2012	4/09/2013	22/05/2014	2/07/2014	13/08/2014
Chemical Name	Units	Alliance Round	Round 1	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	<0.1	<1	**0.1**	<0.5	<0.5

MW24		2/07/2014	13/08/2014
Chemical Name	Units	Round 7	Round 9
1,1-dichloroethene	µg/L	**1**	**1**

MW2		23/04/2012	4/09/2013	27/03/2014	21/05/2014	2/07/2014	13/08/2014
Chemical Name	Units	Alliance Round	Round 1	Round 3	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	**5.8**	**7**	**5**	**6.7**	<0.5	**6**
1,1-dichloroethene	µg/L	**0.7**	<1	<1	**1**	<0.5	**0.9**
1,4-dichlorobenzene	µg/L	<2	<1	<1	**0.14**	<0.5	<0.5
cis-1,2-dichloroethene	µg/L	<0.1	<1	<1	**0.02**	<0.5	<0.5

MW16		20/05/2014	1/07/2014	6/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
1,1-dichloroethane	µg/L	**0.06**	<0.5	<0.5
1,1-dichloroethene	µg/L	**1**	<1	<0.5

MW1		23/04/2012	4/09/2013	22/05/2014	13/08/2014
Chemical Name	Units	Alliance Round	Round 1	Round 6	Round 9
Tetrachloroethene	µg/L	<0.05	<1	**0.03**	<0.5

MW18		21/05/2014	3/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
Vinyl chloride (SIM)	µg/L	**0.13**	-	-
1,1-dichloroethane	µg/L	**24**	**5**	**8**
1,1-dichloroethene	µg/L	**23**	**3**	**8**
1,2-dichloroethane	µg/L	**0.32**	<0.5	<0.5
cis-1,2-dichloroethene	µg/L	**0.03**	<0.5	<0.5
Trichloroethene	µg/L	**0.02**	<0.5	<0.5

MW20		21/05/2014	2/07/2014	13/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
1,1-dichloroethene	µg/L	**<1 - 0.34**	<0.5	<0.5

Exceeds				
Maintenance of Ecosystems	Acceptable Potable Water Supply	Agriculture, Parks and Gardens	Stock Watering	Primary Contact Recreation

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Drawing Number: **J8427-2**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP

TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP

ENVIRONMENTAL AUDIT BOUNDARY

PROPOSED SITE CONSTRUCTION

PROPOSED OPEN SURFACE AREA

OFFSITE GROUNDWATER WELL

DEEP GROUNDWATER WELL

SOIL BORE

HISTORIC BUILDING OUTLINE

INFERRED REGIONAL HALOGENATED VOLATILE COMPOUND PLUME

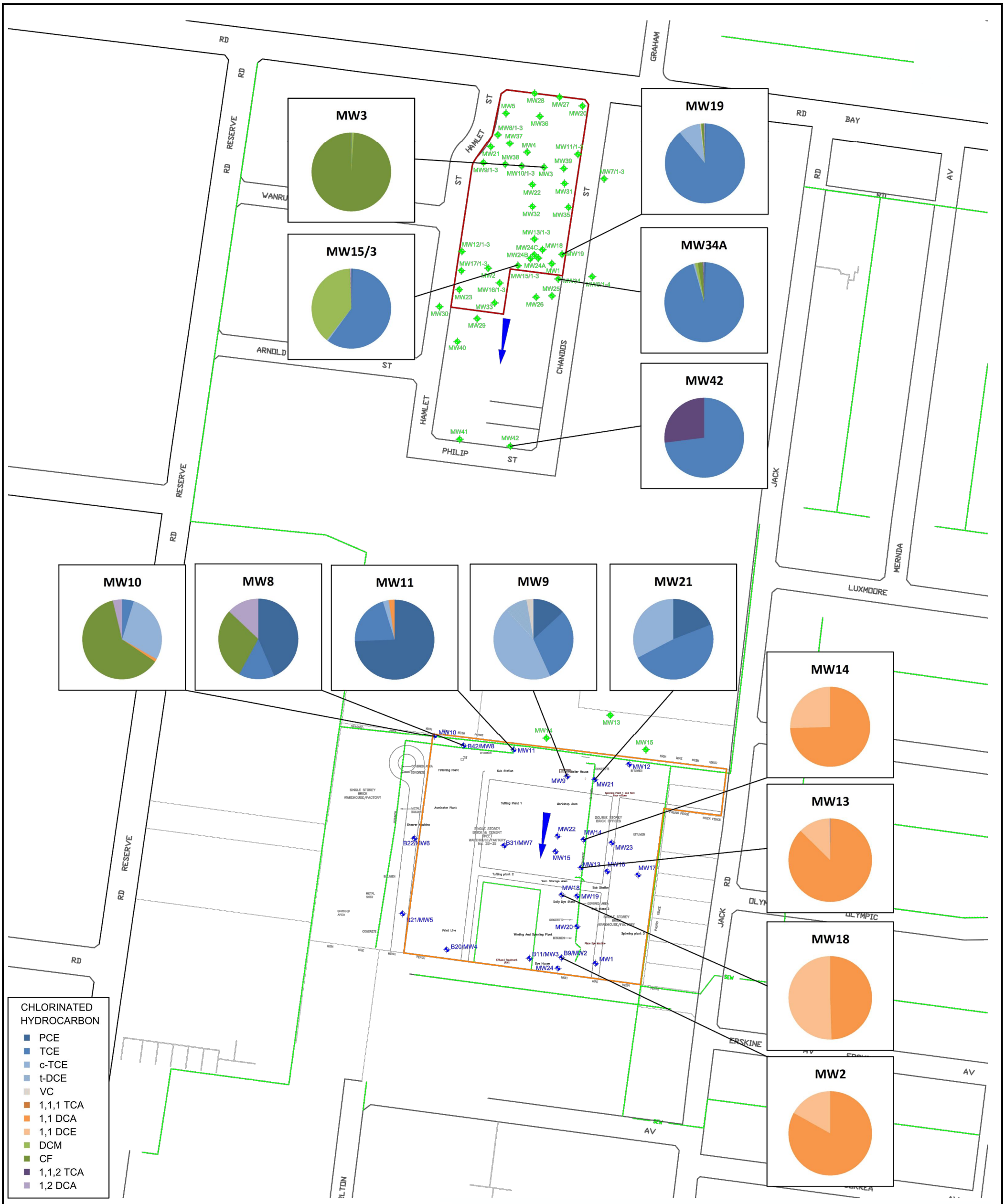
INFERRED 1,1-DCE 1,1-DCA 1,2 DCA +VC PLUME EXCEEDING CRITERIA

INFERRED TRICHLOROETHENE PLUME EXCEEDING CRITERIA

Client **Jack Road Investments Pty Ltd**

Site 33 Jack Road, Cheltenham

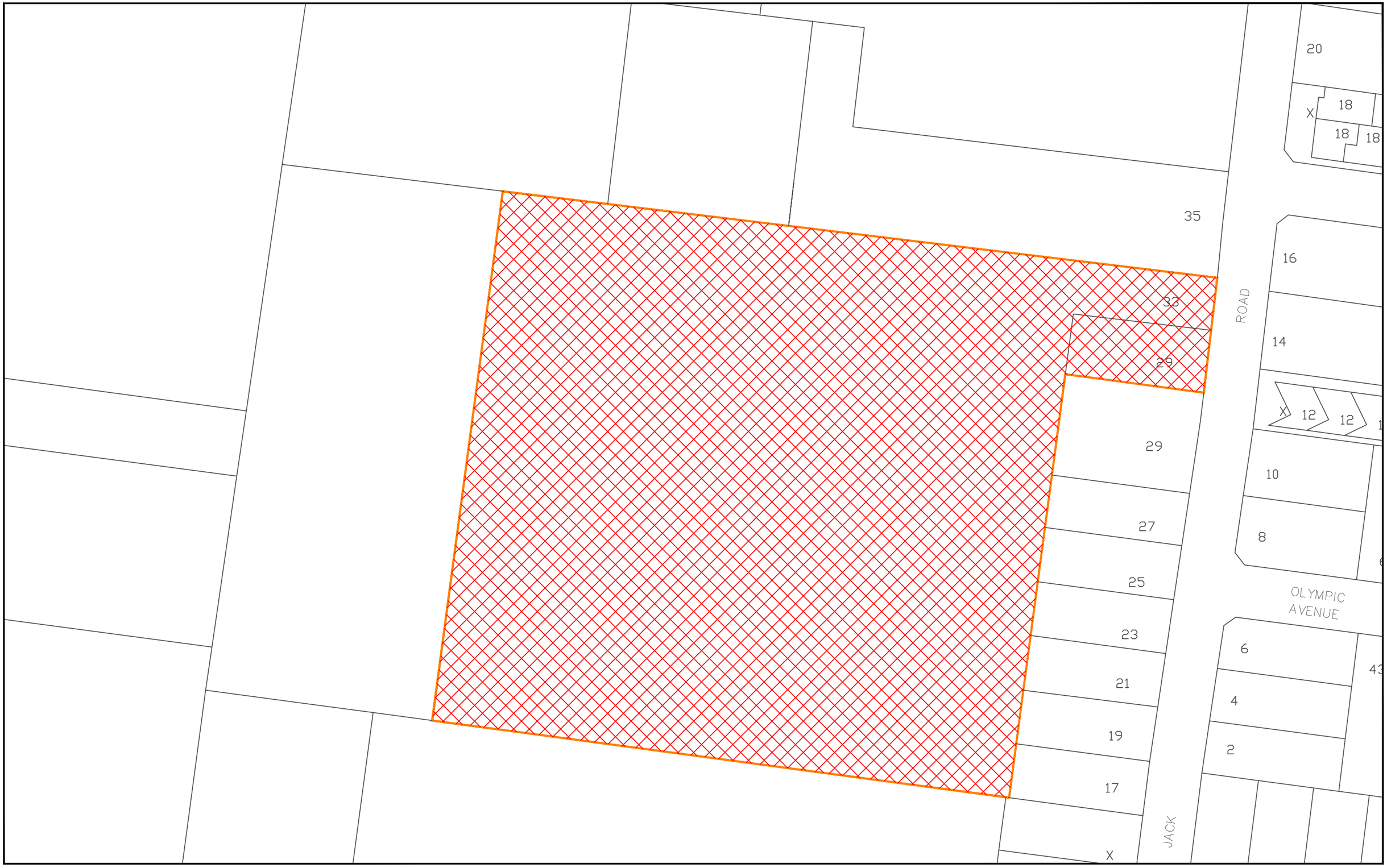
Title Figure 18 - Groundwater Impacts, Deep Aquifer: VCHs



peraco

Drawing Number: **J8427-2**	
Revision: **A**	
Date: **25/09/2014**	
Author: **LZ**	Checked by: **MB**
Data Source: **Coffey, ENAUABTF00982AA, 27/08/14**	

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 19 - Chlorinated Hydrocarbon Composition in Groundwater



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Drawing Number: **J8427-2**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source:
LRM Global, 10172, 25/08/14

ENVIRONMENTAL AUDIT BOUNDARY

GQRUZ EXTENT

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 20 - Auditor Recommended Groundwater Quality Restricted Use Zone

Tables

Environmental Audit Report
33 Jack Road, Cheltenham, Victoria, 3192

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	11/4/12	5/4/12	5/4/12	3/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12
Sample Matrix	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs

Selected Metals	LOR																			
Arsenic	5	100	400	20	1-50	-	-	<5	<5	**15**	**11**	<5	**35**	<5	**8**	<5	<5	**9**	<5	<5	**8**
Barium	10	-	-	300	100-3,000	-	-	**140**	**10**	**10**	**590**	**200**	**200**	-	-	**20**	**20**	**20**	<10	**10**	**20**
Beryllium	1	20	80	-	-	-	-	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
Boron	50	3,000	12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
Cadmium	1	20	80	3	1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	2	120,000	480,000	400	5-1,000	-	-	**10**	**12**	**20**	**24**	**6**	**20**	**20**	**13**	**16**	**3**	**20**	**22**	<2	**30**
Hexavalent Chromium	0.5	100	400	1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
Cobalt	2	100	400	-	1-40	-	-	**16**	**3**	**2**	**5**	<2	**3**	-	-	**3**	<2	**4**	<2	<2	**7**
Copper	5	1,000	4,000	100	2-100	-	-	**35**	**7**	<5	**41**	**36**	<5	**25**	**63**	**13**	**6**	<5	<5	<5	**24**
Lead	5	300	1,200	600	2-200	-	-	**20**	**12**	**19**	**978**	**804**	**43***	<5	**178**	**41**	**20**	**11**	**5**	**10**	**28**
Manganese	5	1,500	6,000	500	850	-	-	**77**	**67**	**21**	**106**	**59**	**24***	-	-	**111**	**32**	**24**	**7**	**7**	**20**
Mercury	0.1	15	60	1	0.03	-	-	<0.1	<0.1	<0.1	<0.1	**0.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	2	600	2,400	60	5-500	-	-	**14**	**16**	**6**	**17**	<2	**8.3***	**109**	**31**	**9**	<2	**7**	**4**	<2	**6**
Vanadium	5	-	-	50	20-500	-	-	**19**	**26**	**62**	**17**	**8**	**84**	-	-	**38**	**5**	**62**	**40**	**6**	**40**
Zinc	5	7,000	28,000	200	10-300	-	-	**28**	**19**	**7**	**661**	**242**	**11**	**37**	**120**	**24**	**22**	**29**	<5	**7**	**57**

Polynuclear Aromatic Hydrocarbons (PAH)																				
Naphthalene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	<0.5	**1.2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**5**	<0.5	**1.2**	<0.5	**1.2**	<0.5	<0.5	<0.5	<0.5
Anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**1.2**	<0.5	**0.9**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**5.1**	<0.5	**5.5**	<0.5	**4**	<0.5	<0.5	<0.5	**1.4**
Pyrene	0.5	-	-	-	-	-	-	**1.1**	<0.5	<0.5	<0.5	<0.5	**5.3**	<0.5	**6.7**	<0.5	**3.9**	<0.5	<0.5	<0.5	**1.7**
Benz(a)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**2.2**	<0.5	**4.1**	<0.5	**2.6**	<0.5	<0.5	<0.5	**1.4**
Chrysene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**2.1**	<0.5	**3.4**	<0.5	**2.4**	<0.5	<0.5	<0.5	**1.5**
Benzo (b) fluoranthene	0.5	-	-	-	-	-	-	**1.2**	<0.5	<0.5	<0.5	<0.5	**2.1**	<0.5	**5.8**	<0.5	**1.8**	<0.5	<0.5	<0.5	**1.8**
Benzo(k)fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**	<0.5	**2.3**	<0.5	**1.9**	<0.5	<0.5	<0.5	**1.7**
Benzo(a)pyrene	0.5	1	4	-	-		-	**1.4**	<0.5	<0.5	<0.5	<0.5	**1.8**	<0.5	**5.3**	<0.5	**2.4**	<0.5	<0.5	<0.5	**2**
Indeno(1.2.3.cd)pyrene	0.5	-	-	-	-	-	-	**1**	<0.5	<0.5	<0.5	<0.5	**1.7***	<0.5	**3.2**	<0.5	**1.2**	<0.5	<0.5	<0.5	**1.4**
Dibenz(a.h)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.9**	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**
Benzo(g.h.i)perylene	0.5	-	-	-	-	-	-	2.3	<0.5	<0.5	<0.5	<0.5	**1.3**	<0.5	**4.4**	<0.5	**1.3**	<0.5	<0.5	<0.5	**1.8**
7.12 Dimethylbenzene (a) anthracene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-2-Fluorenyl Acetamide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Methylcholanthrene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of PAHs	0.5	20	80	-	-		-	**7**	<0.5	<0.5	<0.5	<0.5	**29.1**	<0.5	**44.9**	<0.5	**22.7**	<0.5	<0.5	<0.5	**15.3**

Total Recoverable Hydrocarbons (NEPM 2010 Draft)	LOR																			
(C_6-C_{10})	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
(C_6-C_{10}) Fraction minus BTEX	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
>(C_{10}-C_{16})	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
>(C_{16}-C_{34})	100	-	-	-	-	-	-	**360**	<100	<100	<100	<100	**150**	<100	**230**	<100	<100	<100	<100	<100	**180**
>(C_{34}-C_{40})	100	-	-	-	-	-	-	**200**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>(C_{10}-C_{40}) (sum)	50	-	-	-	-	-	-	**560**	<50	<50	<50	<50	**150**	<50	**230**	<50	<50	<50	<50	<50	**180**

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	10/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12	10/4/12
Sample Matrix	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill

Selected Metals	LOR	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs													
Arsenic	5	100	400	20	1-50	-	-	<5	**10**	<5	-	**5**	<5	<5	**6**	<5	<5	<5	<5	-	<5
Barium	10	-	-	300	100-3,000	-	-	<10	<10	<10	-	**10**	**10**	<10	<10	**30**	<10	<10	**630**	-	<10
Beryllium	1	20	80	-	-	-	-	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	-	<1
Boron	50	3,000	12,000	-	-	-	-	-	<50	-	-	-	-	-	-	<50	-	-	-	-	<50
Cadmium	1	20	80	3	1	-	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
Chromium	2	120,000	480,000	400	5-1,000	-	-	<2	**28**	<2	-	**12**	**2**	**4**	**18**	**14**	<2	<2	<2	-	**7**
Hexavalent Chromium	0.5	100	400	1	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5
Cobalt	2	100	400	-	1-40	-	-	<2	**2**	<2	-	<2	<2	<2	<2	**39**	<2	<2	<2	-	<2
Copper	5	1,000	4,000	100	2-100	-	-	<5	<5	<5	-	<5	<5	<5	<5	**75**	<5	<5	**12**	-	<5
Lead	5	300	1,200	600	2-200	-	-	<5	**24**	**7**	-	**11**	**10**	**32**	**25**	<5	<5	<5	**9**	-	<5
Manganese	5	1,500	6,000	500	850	-	-	<5	**8**	**6**	-	**14**	**16**	**24**	**16**	**467**	<5	<5	**9**	-	<5
Mercury	0.1	15	60	1	0.03	-	-	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	<0.1	-	<0.1
Nickel	2	600	2,400	60	5-500	-	-	<2	**5**	<2	-	**2**	<2	**2**	**4**	**101**	<2	<2	<2	-	**3**
Vanadium	5	-	-	50	20-500	-	-	**15**	**87**	<5	-	**32**	**6**	**9**	**40**	**7**	<5	<5	<5	-	**7**
Zinc	5	7,000	28,000	200	10-300	-	-	<5	**92**	**6**	-	**6**	**15**	**16**	**18**	**51**	<5	<5	**34***	-	<5
Polynuclear Aromatic Hydrocarbons (PAH)																				
Naphthalene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Acenaphthylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Acenaphthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Fluorene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Phenanthrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	**0.9**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Benz(a)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Chrysene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Benzo (b) fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<10	<0.5
Benzo(k)fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5		<0.5
Benzo(a)pyrene	0.5	1	4	-	-		-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Indeno(1.2.3.cd)pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Dibenz(a.h)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Benzo(g.h.i)perylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
7.12 Dimethylbenzene (a) anthracene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	<0.5	-	<5.0	-
2-Methylnaphthalene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	<0.5	-	<5.0	-
2-Chloronaphthalene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	<0.5	-	<5.0	-
N-2-Fluorenyl Acetamide	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	<0.5	-	<5.0	-
3-Methylcholanthrene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	<0.5	-	<5.0	-
Sum of PAHs	0.5	20	80	-	-		-	<0.5	<0.5	<0.5	<1.5	**1.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
Total Recoverable Hydrocarbons (NEPM 2010 Draft)																				
(C_6-C_{10})	10	-	-	-	-	-	-	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	-	<10
(C_6-C_{10}) Fraction minus BTEX	10	-	-	-	-	-	-	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	-	<10
>(C_{10}-C_{16})	50	-	-	-	-	-	-	<50	<50	<50	-	<50	<50	<50	<50	<50	<50	<50	<50	-	<50
>(C_{16}-C_{34})	100	-	-	-	-	-	-	<100	**170**	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
>(C_{34}-C_{40})	100	-	-	-	-	-	-	<100	<100	<100	-	<100	<100	<100	<100	**130**	<100	<100	<100	-	<100
>(C_{10}-C_{40}) (sum)	50	-	-	-	-	-	-	<50	**170**	<50	-	<50	<50	<50	<50	**130**	<50	<50	<50	-	<50

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	3/4/12	4/4/12	4/4/12	4/4/12	10/4/12	10/4/12	3/4/12	3/4/12	3/4/12	4/4/12	5/4/12	5/4/12	5/4/12	11/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill

Selected Metals	LOR	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs																
Arsenic	5	100	400	20	1-50	-	-	<5	<5	<5	**11**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Barium	10	-	-	300	100-3,000	-	-	**4,480**	**140**	<10	**20**	**30**	**20**	<10	<10	**60**	<10	**10**	<10	**280**	**10**	**20**	**40**	
Beryllium	1	20	80	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Boron	50	3,000	12,000	-	-	-	-	-	<50	-	-	-	<50	-	-	-	-	-	-	<50	-	-	-	
Cadmium	1	20	80	3	1	-	-	**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chromium	2	120,000	480,000	400	5-1,000	-	-	**11**	**4**	<2	**38**	**14**	**21**	**2**	<2	**15**	**3**	**3**	**3**	**12**	**3**	**11**	**17**	
Hexavalent Chromium	0.5	100	400	1	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	
Cobalt	2	100	400	-	1-40	-	-	**5**	<2	<2	4	**24**	**18**	**6**	<2	**27**	<2	<2	**10**	**3**	<2	<2	**6**	
Copper	5	1,000	4,000	100	2-100	-	-	**149**	<5	<5	<5	**24**	**19**	<5	<5	**29**	<5	<5	**22**	**7**	**6**	**<5**	**25**	
Lead	5	300	1,200	600	2-200	-	-	**61**	<5	<5	**12**	<5	**9**	<5	<5	<5	<5	**12**	<5	**31**	**12**	**27**	**15**	
Manganese	5	1,500	6,000	500	850	-	-	**98**	<5	<5	**33**	**576**	**326**	**71**	**7**	**536**	**20**	**26**	**78**	**51**	**16**	**31**	**92**	
Mercury	0.1	15	60	1	0.03	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Nickel	2	600	2,400	60	5-500	-	-	**11**	<2	<2	**11**	**101**	**77**	**13**	<2	**103**	<2	**4**	**13**	**12**	<2	**3**	**19**	
Vanadium	5	-	-	50	20-500	-	-	**9**	**6**	<5	**70**	**10**	**26**	<5	<5	**10**	**16**	<5	<5	**26**	**7**	**23**	**31**	
Zinc	5	7,000	28,000	200	10-300	-	-	**1,030**	<5	<5	**11**	**44**	**42**	**6**	<5	**47**	<5	**9**	**6**	**23**	**29**	**22**	**20**	

Polynuclear Aromatic Hydrocarbons (PAH)																								
Naphthalene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**1**	<0.5	**0.8**	<0.5	<0.5	<0.5	<0.5	**1.3**	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**6.9**	**1.6**	**7.8**	<0.5	<0.5	<0.5	<0.5	**8.9**	**0.8**	<0.5	<0.5	<0.5	
Anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**2.1**	**0.8**	**3.1**	<0.5	<0.5	<0.5	<0.5	**3.6**	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**9.6**	**2.3**	**7.9**	<0.5	<0.5	<0.5	<0.5	**22.9**	**0.7**	<0.5	<0.5	<0.5	
Pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	**0.6**	**10.9**	**2.6**	**7.9**	<0.5	<0.5	<0.5	<0.5	**25.3**	**1.5**	<0.5	**0.8**	<0.5	
Benz(a)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**3.9**	**0.7**	**3**	<0.5	<0.5	<0.5	<0.5	**12.4**	<0.5	<0.5	<0.5	<0.5	
Chrysene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**3.5**	**1.1**	**3.1**	<0.5	<0.5	<0.5	<0.5	**8.7**	**0.7**	<0.5	<0.5	<0.5	
Benzo (b) fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**4**	**0.8**	**2.2**	<0.5	<0.5	<0.5	<0.5	**11.4**	**0.5**	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**1.3**	<0.5	**2.1**	<0.5	<0.5	<0.5	<0.5	**3.8**	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	0.5	1	4	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**3.6**	**0.6**	**3.1**	<0.5	<0.5	<0.5	<0.5	**9.7**	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**1.7**	<0.5	**1.3**	<0.5	<0.5	<0.5	<0.5	**4**	<0.5	<0.5	<0.5	<0.5	
Dibenz(a.h)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.1**	<0.5	<0.5	<0.5	<0.5	
Benzo(g.h.i)perylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	**2.4**	**0.5**	**1.5**	<0.5	<0.5	<0.5	<0.5	**5.3**	**0.6**	<0.5	<0.5	<0.5	
7.12 Dimethylbenzene (a) anthracene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2-Methylnaphthalene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2-Chloronaphthalene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N-2-Fluorenyl Acetamide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3-Methylcholanthrene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sum of PAHs	0.5	20	80	-	-		-	<0.5	<0.5	<0.5	**0.6**	**50.9**	**11**	**43.8**	<0.5	<0.5	<0.5	<0.5	**118**	**4.8**	<0.5	**0.8**	<0.5	

Total Recoverable Hydrocarbons (NEPM 2010 Draft)	LOR																							
(C_6-C_{10})	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
(C_6-C_{10}) Fraction minus BTEX	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
>(C_{10}-C_{16})	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	**60**	<50	<50	<50	<50	
>(C_{16}-C_{34})	100	-	-	-	-	-	-	<100	<100	<100	<100	**170**	<100	**130**	<100	<100	<100	<100	**500***	<100	<100	<100	<100	
>(C_{34}-C_{40})	100	-	-	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	**120**	**120***	<100	<100	<100	<100	
>(C_{10}-C_{40}) (sum)	50	-	-	-	-	-	-	<50	<50	<50	<50	**170**	<50	**130**	<50	<50	<50	**120**	**680**	<50	<50	<50	<50	

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B37-0.7	B37-3.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5	B40-1.2
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	5/4/12	5/4/12	5/4/12	5/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12
Sample Matrix	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural

Selected Metals	LOR	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs															
Arsenic	5	100	400	20	1-50	-	-	<5	<5	<5	<5	<5	<5	-	-	-	-	<5	<5	<5	5	**9**	<5
Barium	10	-	-	300	100-3,000	-	-	**10**	**90**	**70**	**100**	<10	**20**	-	-	-	-	**20**	**20**	**30**	**20**	-	-
Beryllium	1	20	80	-	-	-	-	<1	<1	**1**	**1**	<1	<1	-	-	-	-	<1	<1	<1	<1	-	-
Boron	50	3,000	12,000	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	-	-	<50	-	-	-
Cadmium	1	20	80	3	1	-	-	<1	<1	<1	<1	<1	<1	-	-	-	-	<1	<1	<1	<1	<1	<1
Chromium	2	120,000	480,000	400	5-1,000	-	-	<2	**42**	**40**	**51**	<2	**12**	-	-	-	-	**16**	**4**	**14**	**18**	**31**	**3**
Hexavalent Chromium	0.5	100	400	1	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
Cobalt	2	100	400	-	1-40	-	-	<2	**41**	**37**	**40**	<2	**13**	-	-	-	-	**26**	<2	**30**	**4**	-	-
Copper	5	1,000	4,000	100	2-100	-	-	<5	**76**	**75**	**78**	<5	**17**	-	-	-	-	**31**	<5	**32**	<5	<5	<5
Lead	5	300	1,200	600	2-200	-	-	**18**	<5	<5	<5	**12**	<5	<5	**6**	<5	**7**	<5	**20**	<5	**20**	**11**	<5
Manganese	5	1,500	6,000	500	850	-	-	**11**	**964**	**802**	**898**	**26**	**235**	-	-	-	-	**433**	**62**	**574**	**31**	-	-
Mercury	0.1	15	60	1	0.03	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	2	600	2,400	60	5-500	-	-	<2	**158**	**153**	**162**	<2	**38**	-	-	-	-	**106**	**2**	**114**	**9**	**10**	**3**
Vanadium	5	-	-	50	20-500	-	-	<5	**31**	**31**	**41**	<5	**12**	-	-	-	-	**12**	**15**	**10**	**49**	-	-
Zinc	5	7,000	28,000	200	10-300	-	-	<5	**57**	**54**	**53**	**8**	**18**	-	-	-	-	**53**	**26**	**56**	**11**	**8**	**11**

Polynuclear Aromatic Hydrocarbons (PAH)																							
Naphthalene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.7**	<0.5	**1.1**	<0.5
Pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**	<0.5	**2**	<0.5
Benz(a)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**	<0.5
Chrysene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1**	<0.5
Benzo (b) fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.4**	<0.5
Benzo(k)fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5
Benzo(a)pyrene	0.5	1	4	-	-		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1**	<0.5
Indeno(1.2.3.cd)pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.7**	<0.5
7.12 Dimethylbenzene (a) anthracene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-2-Fluorenyl Acetamide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Methylcholanthrene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of PAHs	0.5	20	80	-	-		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.5**	<0.5	**8.6**	<0.5

Total Recoverable Hydrocarbons (NEPM 2010 Draft)	LOR																						
(C_6-C_{10})	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
(C_6-C_{10}) Fraction minus BTEX	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
>(C_{10}-C_{16})	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	<50	<50	<50	**220**	<50	<50	<50	<50	<50	<50	<50
>(C_{16}-C_{34})	100	-	-	-	-	-	-	<100	<100	<100	<100	<100	**660**	<100	<100	**830**	<100	<100	<100	<100	<100	<100	<100
>(C_{34}-C_{40})	100	-	-	-	-	-	-	<100	<100	<100	<100	<100	**1,040**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
>(C_{10}-C_{40}) (sum)	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	**1,700**	<50	<50	**1,050**	<50	<50	<50	<50	<50	<50	<50

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	11/4/12	11/4/12	11/4/12	11/4/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	3/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs

Selected Metals	LOR																			
Arsenic	5	100	400	20	1-50	-	-	<5	<5	<5	<5	<5	<5	<5	**10**	**7**	<5	**18**	**5**	**12**	<5
Barium	10	-	-	300	100-3,000	-	-	**40**	**<10**	**20**	**40**	<10	**30**	**20**	**40**	**10**	**20**	**30**	**40**	**30**	**20**
Beryllium	1	20	80	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Boron	50	3,000	12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	1	20	80	3	1	-	-	<1	<1	**4**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	2	120,000	480,000	400	5-1,000	-	-	**14**	**3**	**3**	**8**	<2	**15**	**26**	**30**	**19**	**18**	**37**	**10**	**32**	**15**
Hexavalent Chromium	0.5	100	400	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	2	100	400	-	1-40	-	-	**24**	<2	**12**	**3**	<2	<2	<2	**3**	<2	**10**	**6**	**5**	**6**	<2
Copper	5	1,000	4,000	100	2-100	-	-	**27**	<5	<5	**139**	**17**	**135**	<5	**27**	**6**	**21**	**6**	**19**	**16**	<5
Lead	5	300	1,200	600	2-200	-	-	<5	**13**	**12**	**42**	**9**	**64**	**8**	**41**	**8**	**39**	**20**	**149**	**43**	**47**
Manganese	5	1,500	6,000	500	850	-	-	**545**	**24**	<5	**80**	<5	**27**	**11**	**42**	**10**	**196**	**60**	**55**	**38**	**41**
Mercury	0.1	15	60	1	0.03	-	-	<0.1	**0.1**	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	**0.1**	<0.1	<0.1
Nickel	2	600	2,400	60	5-500	-	-	**102**	<2	<2	**8**	<2	**5**	**5**	**12**	**4**	**33**	**13**	**8**	**13**	**4**
Vanadium	5	-	-	50	20-500	-	-	**11**	**5**	<5	**10**	<5	**18**	**41**	**45**	**49**	**11**	**83**	**19**	**90**	**32**
Zinc	5	7,000	28,000	200	10-300	-	-	**47**	**12**	**422**	**153**	**18**	**115**	**6**	**300**	**31**	**331**	**232**	**205**	**166**	**31**

Polynuclear Aromatic Hydrocarbons (PAH)																				
Naphthalene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo (b) fluoranthene	0.5	-	-	-	-	-	-	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<0.5	<1
Benzo(k)fluoranthene	0.5	-	-	-	-	-	-		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	
Benzo(a)pyrene	0.5	1	4	-	-		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7.12 Dimethylbenzene (a) anthracene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
2-Methylnaphthalene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
2-Chloronaphthalene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
N-2-Fluorenyl Acetamide	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
3-Methylcholanthrene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Sum of PAHs	0.5	20	80	-	-		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Total Recoverable Hydrocarbons (NEPM 2010 Draft)	LOR																			
(C_6-C_{10})	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
(C_6-C_{10}) Fraction minus BTEX	10	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	-	<10	<10	<10
>(C_{10}-C_{16})	50	-	-	-	-	-	-	<50	<50	**70**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
>(C_{16}-C_{34})	100	-	-	-	-	-	-	<100	<100	**3,560**	<100	<100	**200**	<100	<100	<100	<100	<100	**1,670**	<100	<100
>(C_{34}-C_{40})	100	-	-	-	-	-	-	<100	<100	**670**	<100	<100	<100	<100	<100	<100	<100	<100	**860**	<100	<100
>(C_{10}-C_{40}) (sum)	50	-	-	-	-	-	-	<50	<50	**4,300**	<50	<50	**200**	<50	<50	<50	<50	<50	**2,530**	<50	<50

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0
Sample Date	3/4/12	5/4/12	11/4/12	11/4/12	11/4/12	11/4/12	4/4/12	4/4/12	11/4/12
Sample Matrix	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural

Selected Metals	LOR	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs								
Arsenic	5	100	400	20	1-50	-	-	**6**	-	-	-	**14**	**52**	<5	**5**	<5
Barium	10	-	-	300	100-3,000	-	-	<10	-	-	-	<10	<10	**20**	<10	<10
Beryllium	1	20	80	-	-	-	-	<1	-	-	-	<1	<1	<1	<1	<1
Boron	50	3,000	12,000	-	-	-	-	<50	-	-	-	-	-	-	-	-
Cadmium	1	20	80	3	1	-	-	<1	-	-	-	<1	<1	<1	<1	<1
Chromium	2	120,000	480,000	400	5-1,000	-	-	**23**	-	-	-	**42**	**40**	**13**	**15**	**13**
Hexavalent Chromium	0.5	100	400	1	-	-	-	<0.5	-	-	-	-	-	-	-	-
Cobalt	2	100	400	-	1-40	-	-	**5**	-	-	-	**2**	**3**	**20**	<2	<2
Copper	5	1,000	4,000	100	2-100	-	-	**11**	-	-	-	<5	<5	**23**	<5	<5
Lead	5	300	1,200	600	2-200	-	-	**16**	-	-	-	**6**	**14**	<5	**6**	<5
Manganese	5	1,500	6,000	500	850	-	-	**39**	-	-	-	**12**	**10**	**391**	**5**	<5
Mercury	0.1	15	60	1	0.03	-	-	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	2	600	2,400	60	5-500	-	-	**7**	-	-	-	<2	**4**	**81**	<2	<2
Vanadium	5	-	-	50	20-500	-	-	**45**	-	-	-	**80**	**156**	**11**	**31**	**14**
Zinc	5	7,000	28,000	200	10-300	-	-	**56**	-	-	-	<5	**10**	**37**	<5	<5
Polynuclear Aromatic Hydrocarbons (PAH)																
Naphthalene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo (b) fluoranthene	0.5	-	-	-	-	-	-	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<1	<0.5
Benzo(k)fluoranthene	0.5	-	-	-	-	-	-	<0.5				<0.5	<0.5	<0.5		<0.5
Benzo(a)pyrene	0.5	1	4	-	-		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	0.5	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7.12 Dimethylbenzene (a) anthracene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2-Methylnaphthalene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2-Chloronaphthalene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
N-2-Fluorenyl Acetamide	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
3-Methylcholanthrene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Sum of PAHs	0.5	20	80	-	-		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Total Recoverable Hydrocarbons (NEPM 2010 Draft)	LOR															
(C_6-C_{10})	10	-	-	-	-	-	-	<10	-	-	-	<10	<10	<10	<10	<10
(C_6-C_{10}) Fraction minus BTEX	10	-	-	-	-	-	-	<10	-	-	-	<10	<10	<10	<10	<10
>(C_{10}-C_{16})	50	-	-	-	-	-	-	<50	-	-	-	<50	<50	<50	<50	<50
>(C_{16}-C_{34})	100	-	-	-	-	-	-	<100	-	-	-	<100	<100	<100	<100	<100
>(C_{34}-C_{40})	100	-	-	-	-	-	-	<100	-	-	-	<100	<100	<100	<100	<100
>(C_{10}-C_{40}) (sum)	50	-	-	-	-	-	-	<50	-	-	-	<50	<50	<50	<50	<50

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	11/4/12	5/4/12	5/4/12	3/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12
Sample Matrix	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs													
Total Petroleum Hydrocarbons (TPH)	**LOR**																		
(C_6-C_9)	10	-	-	-	-	65	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
(C_{10}-C_{14})	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
(C_{15}-C_{28})	100	-	-	-	-	-	-	**160**	<100	<100	<100	<100	**85***	<100	**110**	<100	<100	<100	<100	<100	**110**
(C_{29}-C_{36})	100	-	-	-	-	-	-	**270**	<100	<100	<100	<100	<100	<100	**150**	<100	<100	<100	<100	<100	<100
(C_{10}-C_{36}) (sum)	50	-	-	-	-	1,000	-	**430**	<50	<50	<50	<50	**85**	<50	**260**	<50	<50	<50	<50	<50	**110**
Miscellaneous	**LOR**																		
pH (units)	-	-	-	-	-	-	-	-	**8.1**	-	-	**7.6**	**8.3**	-	-	-	**7.3**	-	**7.9**	-	-
Free Cyanide	1	250	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
Total Cyanide	1	500	2,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
Total Phosphorus	2	-	-	2,000	-	-	-	-	**166**	-	-	**506**	**104**	-	-	-	**412**	**382**	**38**	-	-
Total Sulfur	0.01	-	-	600				-	-	-	-	-	-	-	-	-	-	**0.01**	-	-	-
Sulphate	50	-	-	2,000	-	-	-	-	**110**	-	-	<50	**280**	-	-	-	**160**	**200**	**140**	-	-
Nitrite as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate as N	0.1	-	-	-	-	-	-	-	**42.9**	-	-	**1.1**	**47.2**	-	-	-	**0.4**	-	**5**	-	-
Nitrite + Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Polychlorinated Biphenyls	0.1	10	40	-	-	-	-	-	-	-	-	-	-	<0.10	<2.00	-	-	<0.10	-	-	-
VOLATILE ORGANIC COMPOUNDS																			
Monocyclic Aromatic Hydrocarbons	**LOR**																		
Benzene	0.2	-	-	-	-	1	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	0.5	-	-	-	-	130	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	-	-	-	-	50	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	0.5	-	-	-	100[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ortho-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	0.5	-	-	-	-	25	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3.5-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	0.5	-	-	-	220[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.4-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxygenated Compounds																			
Vinyl Acetate	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone (MBK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfonated Compounds																			
Carbon disulfide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	10/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12	10/4/12
Sample Matrix	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs													
Total Petroleum Hydrocarbons (TPH)	**LOR**																		
(C_6-C_9)	10	-	-	-	-	65	-	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	-	<10
(C_{10}-C_{14})	50	-	-	-	-	-	-	<50	<50	<50	-	<50	<50	<50	<50	<50	<50	<50	-	<50
(C_{15}-C_{28})	100	-	-	-	-	-	-	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	-	<100
(C_{29}-C_{36})	100	-	-	-	-	-	-	<100	**110**	<100	-	<100	<100	<100	<100	<100	<100	<100	-	<100
(C_{10}-C_{36}) (sum)	50	-	-	-	-	1,000	-	<50	**110**	<50	-	<50	<50	<50	<50	<50	<50	<50	-	<50
Miscellaneous	**LOR**																		
pH (units)	-	-	-	-	-	-	-	**6.4**	-	-	**5.8**	-	**6.7**	-	-	-	-	**8**	**8.7**	-	-
Free Cyanide	1	250	1,000	-	-	-	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	<1
Total Cyanide	1	500	2,000	-	-	-	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	<1
Total Phosphorus	2	-	-	2,000	-	-	-	**95**	**120**	-	**147**	-	**336**	-	-	**543**	-	**17**	**40**	-	**26**
Total Sulfur	0.01	-	-	600				-	**0.05**	-	-	-	-	-	-	**0.02**	-	-	-	-	**0.01**
Sulphate	50	-	-	2,000	-	-	-	**360**	**1170**	-	**1040**	-	**110**	-	-	<50	-	<50	<50	-	<50
Nitrite as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate as N	0.1	-	-	-	-	-	-	**0.7**	-	-	**7.7**	-	**8.6**	-	-	-	-	**0.2**	**2.4**	-	-
Nitrite + Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Polychlorinated Biphenyls	0.1	10	40	-	-	-	-	-	<0.10	-	-	-	-	-	-	<0.30	-	-	-	-	<0.10
VOLATILE ORGANIC COMPOUNDS																			
Monocyclic Aromatic Hydrocarbons	**LOR**																		
Benzene	0.2	-	-	-	-	1	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	0.5	-	-	-	-	130	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	-	-	-	-	50	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	0.5	-	-	-	100[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
ortho-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	0.5	-	-	-	-	25	14	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5
Isopropylbenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
n-Propylbenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
1.3.5-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
sec-Butylbenzene	0.5	-	-	-	220[2]	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
1.2.4-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
tert-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
p-Isopropyltoluene	0.5	-	-	-	-	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
n-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5					-	-	<0.5		<0.5	-
Oxygenated Compounds																			
Vinyl Acetate	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
2-Butanone (MEK)	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
4-Methyl-2-pentanone (MIBK)	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
2-Hexanone (MBK)	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
Sulfonated Compounds																			
Carbon disulfide	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	3/4/12	4/4/12	4/4/12	4/4/12	10/4/12	10/4/12	3/4/12	3/4/12	3/4/12	4/4/12	5/4/12	5/4/12	5/4/12	11/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs

Total Petroleum Hydrocarbons (TPH)	LOR																	
(C_6-C_9)	10	-	-	-	-	65	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
(C_{10}-C_{14})	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	**70**	<50	<50	<50	<50
(C_{15}-C_{28})	100	-	-	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	**410***	<100	<100	<100	<100
(C_{29}-C_{36})	100	-	-	-	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	**120**	**220***	<100	<100	<100	<100
(C_{10}-C_{36}) (sum)	50	-	-	-	-	1,000	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	**120**	**700**	<50	<50	<50	<50

Miscellaneous	LOR																			
pH (units)	-	-	-	-	-	-	-	-	-	-	**7**	-	-	**7.7**	-	-	**9.9**	-	-	-	**7.9**	-
Free Cyanide	1	250	1,000	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	-
Total Cyanide	1	500	2,000	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	-
Total Phosphorus	2	-	-	2,000	-	-	-	-	**22**	-	**108**	-	**459**	-	**93**	-	-	**502**	-	**129**	-	**45**	-
Total Sulfur	0.01	-	-	600				-	**1.16**	-	-	-	<0.01	-	-	-	-	-	-	<0.01	-	-	-
Sulphate	50	-	-	2,000	-	-	-	-	<50	-	**170**	-	**60**	-	<50	-	-	<50	-	**60**	-	<50	-
Nitrite as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	**77.7**	-	-	-	**17.8**	-	-	**1**	-	-	-	**2.2**	-
Nitrite + Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Polychlorinated Biphenyls	0.1	10	40	-	-	-	-	-	<0.10	-	-	-	<0.10	-	-	-	-	-	<0.20	-	-	-	-

VOLATILE ORGANIC COMPOUNDS																							
Monocyclic Aromatic Hydrocarbons	LOR																						
Benzene	0.2	-	-	-	-	1	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	0.5	-	-	-	-	130	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	-	-	-	-	50	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	0.5	-	-	-	100[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ortho-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	0.5	-	-	-	-	25	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3.5-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	0.5	-	-	-	220[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.4-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxygenated Compounds																							
Vinyl Acetate	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone (MBK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfonated Compounds																							
Carbon disulfide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B37-0.7	B37-3.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5	B40-1.2
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	5/4/12	5/4/12	5/4/12	5/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12
Sample Matrix	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs

Total Petroleum Hydrocarbons (TPH)	LOR																	
(C_6-C_9)	10	-	-	-	-	65	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
(C_{10}-C_{14})	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	<50	**100**	<50	<50	<50	<50	<50
(C_{15}-C_{28})	100	-	-	-	-	-	-	<100	<100	<100	<100	<100	**190**	<100	<100	**750**	<100	<100	<100
(C_{29}-C_{36})	100	-	-	-	-	-	-	<100	<100	<100	<100	<100	**750**	<100	<100	**170**	<100	<100	<100
(C_{10}-C_{36}) (sum)	50	-	-	-	-	1,000	-	<50	<50	<50	<50	<50	**940**	<50	<50	**1,020**	<50	<50	<50

Miscellaneous	LOR																	
pH (units)	-	-	-	-	-	-	-	**6**	-	-	**9.4**	-	-	-	-	-	**7.9**	-	-	-	-
Free Cyanide	1	250	1,000	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-
Total Cyanide	1	500	2,000	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-
Total Phosphorus	2	-	-	2,000	-	-	-	**281**	-	**974**	**824**	-	-	-	-	-	**632**	**856**	-	-	-
Total Sulfur	0.01	-	-	600				-	-	<0.01	-	-	-	-	-	-	-	<0.01	-	-	-
Sulphate	50	-	-	2,000	-	-	-	<50	-	<50	**70**	-	-	-	-	-	<50	**60**	-	-	-
Nitrite as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate as N	0.1	-	-	-	-	-	-	**3.7**	-	-	**19.9**	-	-	-	-	-	**8.3**	-	-	-	-
Nitrite + Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Polychlorinated Biphenyls	0.1	10	40	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	<0.10	-	<0.30	<0.10

VOLATILE ORGANIC COMPOUNDS																					
Monocyclic Aromatic Hydrocarbons	LOR																				
Benzene	0.2	-	-	-	-	1	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	0.5	-	-	-	-	130	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	-	-	-	-	50	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	0.5	-	-	-	100[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ortho-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	0.5	-	-	-	-	25	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3.5-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	0.5	-	-	-	220[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.4-Trimethylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxygenated Compounds																					
Vinyl Acetate	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (MIBK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone (MBK)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfonated Compounds																					
Carbon disulfide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	11/4/12	11/4/12	11/4/12	11/4/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	3/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs														
Total Petroleum Hydrocarbons (TPH)	**LOR**																			
(C_6-C_9)	10	-	-	-	-	65	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
(C_{10}-C_{14})	50	-	-	-	-	-	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
(C_{15}-C_{28})	100	-	-	-	-	-	-	<100	<100	**2,110**	<100	<100	**160**	<100	<100	<100	<100	<100	**780**	<100	<100
(C_{29}-C_{36})	100	-	-	-	-	-	-	<100	<100	**1,710**	<100	<100	<100	<100	<100	<100	<100	<100	**1,250**	<100	<100
(C_{10}-C_{36}) (sum)	50	-	-	-	-	1,000	-	<50	<50	**3,820**	<50	<50	**160**	<50	<50	<50	<50	<50	**2,030**	<50	<50
Miscellaneous	**LOR**																			
pH (units)	-	-	-	-	-	-	-	**9.1**	-	-	-	**7.1**	-	-	-	**6.2**	-	**6.8**	-	-	**8.5**
Free Cyanide	1	250	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cyanide	1	500	2,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Phosphorus	2	-	-	2,000	-	-	-	**994**	-	-	-	**27**	-	-	-	**65**	-	**92**	-	-	**60**
Total Sulfur	0.01	-	-	600				-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulphate	50	-	-	2,000	-	-	-	<50	-	-	-	<50	-	-	-	**170**	-	**140**	-	-	**90**
Nitrite as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.8**	-	**3.3**	-	-	-
Nitrate as N	0.1	-	-	-	-	-	-	**0.9**	-	-	-	**0.7**	-	-	-	**0.1**	-	<0.1	-	-	**2.2**
Nitrite + Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.9**	-	**3.3**	-	-	-
Total Polychlorinated Biphenyls	0.1	10	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VOLATILE ORGANIC COMPOUNDS																				
Monocyclic Aromatic Hydrocarbons	**LOR**																			
Benzene	0.2	-	-	-	-	1	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	0.5	-	-	-	-	130	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	-	-	-	-	50	3.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	**1.0**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	0.5	-	-	-	100[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
ortho-Xylene	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	0.5	-	-	-	-	25	14	-	<0.5	<0.5	<0.5	<0.5	**1.0**	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-
Isopropylbenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
n-Propylbenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.3.5-Trimethylbenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
sec-Butylbenzene	0.5	-	-	-	220[2]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2.4-Trimethylbenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
tert-Butylbenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
p-Isopropyltoluene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
n-Butylbenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Oxygenated Compounds																				
Vinyl Acetate	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
2-Butanone (MEK)	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
4-Methyl-2-pentanone (MIBK)	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
2-Hexanone (MBK)	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
Sulfonated Compounds																				
Carbon disulfide	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0
Sample Date	3/4/12	5/4/12	11/4/12	11/4/12	11/4/12	11/4/12	4/4/12	4/4/12	11/4/12
Sample Matrix	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs									
Total Petroleum Hydrocarbons (TPH)	**LOR**														
(C_6-C_9)	10	-	-	-	-	65	-	<10	-	-	-	<10	<10	<10	<10	<10
(C_{10}-C_{14})	50	-	-	-	-	-	-	<50	-	-	-	<50	<50	<50	<50	<50
(C_{15}-C_{28})	100	-	-	-	-	-	-	<100	-	-	-	<100	<100	<100	<100	<100
(C_{29}-C_{36})	100	-	-	-	-	-	-	<100	-	-	-	<100	<100	<100	<100	<100
(C_{10}-C_{36}) (sum)	50	-	-	-	-	1,000	-	<50	-	-	-	<50	<50	<50	<50	<50
Miscellaneous	**LOR**														
pH (units)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Free Cyanide	1	250	1,000	-	-	-	-	<1	-	-	-	-	-	-	-	-
Total Cyanide	1	500	2,000	-	-	-	-	<1	-	-	-	-	-	-	-	-
Total Phosphorus	2	-	-	2,000	-	-	-	**92**	-	-	-	-	-	-	-	-
Total Sulfur	0.01	-	-	600				**0.05**	-	-	-	-	-	-	-	-
Sulphate	50	-	-	2,000	-	-	-	**1800**	-	-	-	-	-	-	-	-
Nitrite as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite + Nitrate as N	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Polychlorinated Biphenyls	0.1	10	40	-	-	-	-	<0.10	-	-	-	-	-	-	-	-
VOLATILE ORGANIC COMPOUNDS																
Monocyclic Aromatic Hydrocarbons	**LOR**															
Benzene	0.2	-	-	-	-	1	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2
Toluene	0.5	-	-	-	-	130	1.4	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
Ethylbenzene	0.5	-	-	-	-	50	3.1	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
meta- & para-Xylene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
Styrene	0.5	-	-	-	100[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
ortho-Xylene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
Total Xylenes	0.5	-	-	-	-	25	14	-	-	-	-	<0.5	<0.5	-	-	<0.5
Isopropylbenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
n-Propylbenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.3.5-Trimethylbenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
sec-Butylbenzene	0.5	-	-	-	220[2]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2.4-Trimethylbenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
tert-Butylbenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
p-Isopropyltoluene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
n-Butylbenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Oxygenated Compounds																
Vinyl Acetate	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
2-Butanone (MEK)	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
4-Methyl-2-pentanone (MIBK)	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
2-Hexanone (MBK)	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
Sulfonated Compounds																
Carbon disulfide	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	11/4/12	5/4/12	5/4/12	3/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12
Sample Matrix	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs														
Fumigants																					
2.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dibromoethane (EDB)	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Aliphatic Compounds																					
Dichlorodifluoromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloroethene	0.5	-	-	-	0.3[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.1-Trichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichloroethane	0.5	-	-	-	4[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	0.5	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2-Trichloroethane	0.5	-	-	-	10[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	0.5	-	-	-	4[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.1.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.3-Trichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dibromo-3-chloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Aromatic Compounds																					
Chlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.3-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trihalomethanes																					
Chloroform	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	10/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12	10/4/12
Sample Matrix	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs														
Fumigants																					
2.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
cis-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
trans-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.2-Dibromoethane (EDB)	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Halogenated Aliphatic Compounds																					
Dichlorodifluoromethane	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
Chloromethane	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
Vinyl chloride	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
Bromomethane	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
Chloroethane	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
Trichlorofluoromethane	5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5	-	<5	-
1.1-Dichloroethene	0.5	-	-	-	0.3[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Iodomethane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
trans-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.1-Dichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
cis-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.1.1-Trichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.1-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Carbon Tetrachloride	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.2-Dichloroethane	0.5	-	-	-	4[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Trichloroethene	0.5	-	60	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Dibromomethane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.1.2-Trichloroethane	0.5	-	-	-	10[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.3-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Tetrachloroethene	0.5	-	-	-	4[1]	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.1.1.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
trans-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
cis-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.1.2.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.2.3-Trichloropropane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Pentachloroethane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.2-Dibromo-3-chloropropane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Halogenated Aromatic Compounds																					
Chlorobenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Bromobenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
2-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
4-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
1.2.3-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Trihalomethanes																					
Chloroform	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Bromodichloromethane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Dibromochloromethane	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-
Bromoform	0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	3/4/12	4/4/12	4/4/12	4/4/12	10/4/12	10/4/12	3/4/12	3/4/12	3/4/12	4/4/12	5/4/12	5/4/12	5/4/12	11/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs																
Fumigants																							
2.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dibromoethane (EDB)	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Aliphatic Compounds																							
Dichlorodifluoromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloroethene	0.5	-	-	-	0.3[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.1-Trichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichloroethane	0.5	-	-	-	4[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	0.5	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2-Trichloroethane	0.5	-	-	-	10[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	0.5	-	-	-	4[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.1.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.3-Trichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dibromo-3-chloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Aromatic Compounds																							
Chlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.3-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trihalomethanes																							
Chloroform	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B37-0.7	B37-3.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5	B40-1.2
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	5/4/12	5/4/12	5/4/12	5/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12
Sample Matrix	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs																
Fumigants																							
2.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dibromoethane (EDB)	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Aliphatic Compounds																							
Dichlorodifluoromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloroethene	0.5	-	-	-	0.3[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.1-Trichloroethane	0.5	-	-	-	15[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1-Dichloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichloroethane	0.5	-	-	-	4[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	0.5	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2-Trichloroethane	0.5	-	-	-	10[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3-Dichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	0.5	-	-	-	4[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.1.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.3-Trichloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dibromo-3-chloropropane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Aromatic Compounds																							
Chlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.3-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trihalomethanes																							
Chloroform	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	11/4/12	11/4/12	11/4/12	11/4/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	3/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs												
Fumigants																			
2.2-Dichloropropane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2-Dichloropropane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
cis-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
trans-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2-Dibromoethane (EDB)	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Halogenated Aliphatic Compounds																			
Dichlorodifluoromethane	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
Chloromethane	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
Vinyl chloride	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
Bromomethane	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
Chloroethane	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
Trichlorofluoromethane	5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5
1.1-Dichloroethene	0.5	-	-	-	0.3[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Iodomethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
trans-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.1-Dichloroethane	0.5	-	-	-	15[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
cis-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.1.1-Trichloroethane	0.5	-	-	-	15[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.1-Dichloropropylene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Carbon Tetrachloride	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2-Dichloroethane	0.5	-	-	-	4[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Trichloroethene	0.5	-	60	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Dibromomethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.1.2-Trichloroethane	0.5	-	-	-	10[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.3-Dichloropropane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Tetrachloroethene	0.5	-	-	-	4[1]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.1.1.2-Tetrachloroethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
trans-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
cis-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.1.2.2-Tetrachloroethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2.3-Trichloropropane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Pentachloroethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2-Dibromo-3-chloropropane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Halogenated Aromatic Compounds																			
Chlorobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Bromobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
2-Chlorotoluene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4-Chlorotoluene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2.3-Trichlorobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Trihalomethanes																			
Chloroform	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Bromodichloromethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Dibromochloromethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Bromoform	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0
Sample Date	3/4/12	5/4/12	11/4/12	11/4/12	11/4/12	11/4/12	4/4/12	4/4/12	11/4/12
Sample Matrix	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs								
Fumigants															
2.2-Dichloropropane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2-Dichloropropane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
cis-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
trans-1.3-Dichloropropylene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2-Dibromoethane (EDB)	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Halogenated Aliphatic Compounds															
Dichlorodifluoromethane	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
Chloromethane	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
Vinyl chloride	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
Bromomethane	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
Chloroethane	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
Trichlorofluoromethane	5	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	<5	-
1.1-Dichloroethene	0.5	-	-	-	0.3[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Iodomethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
trans-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.1-Dichloroethane	0.5	-	-	-	15[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
cis-1.2-Dichloroethene	0.5	-	-	-	1[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.1.1-Trichloroethane	0.5	-	-	-	15[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.1-Dichloropropylene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Carbon Tetrachloride	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2-Dichloroethane	0.5	-	-	-	4[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Trichloroethene	0.5	-	60	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Dibromomethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.1.2-Trichloroethane	0.5	-	-	-	10[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.3-Dichloropropane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Tetrachloroethene	0.5	-	-	-	4[1]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.1.1.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
trans-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
cis-1.4-Dichloro-2-butene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.1.2.2-Tetrachloroethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2.3-Trichloropropane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Pentachloroethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2-Dibromo-3-chloropropane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Halogenated Aromatic Compounds															
Chlorobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Bromobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2-Chlorotoluene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Chlorotoluene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2.3-Trichlorobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Trihalomethanes															
Chloroform	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Bromodichloromethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Dibromochloromethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Bromoform	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	11/4/12	5/4/12	5/4/12	3/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12
Sample Matrix	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs

SEMIVOLATILE ORGANIC COMPOUNDS																						
Phenolic Compounds	LOR																					
Phenol	0.5		34,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
2-Chlorophenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
2-Methylphenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
3- & 4-Methylphenol	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-
2-Nitrophenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
2.4-Dimethylphenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
2.4-Dichlorophenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
2.6-Dichlorophenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
4-Chloro-3-Methylphenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
2.4.6-Trichlorophenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
2.4.5-Trichlorophenol	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
Pentachlorophenol	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2.0	-	-	-
Phthalate Esters																						
Dimethyl phthalate	0.5	-	-	-	280,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	0.5	-	-	-	220,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butyl phthalate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	0.5	-	-	-	56,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-ethylhexyl) phthalate	5.0	-	-	-	140[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octylphthalate	0.5	-	-	-	11,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrosamines																						
N-Nitrosomethylethylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiethylamine	0.5	-	-	-	0.013[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosopyrrolidine	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosomorpholine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosopiperidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodibutylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenyl & Diphenylamine	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methapyrilene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitroaromatics and Ketones																						
2-Picoline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Naphthylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroquinoline-N-oxide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5-Nitro-o-toluidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azobenzene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3.5-Trinitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenacetin	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Aminobiphenyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloronitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pronamide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylaminoazobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzilate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haloethers																						
Bis(2-chloroethyl) ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethoxy) methane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	10/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12	10/4/12
Sample Matrix	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs													
SEMIVOLATILE ORGANIC COMPOUNDS																			
Phenolic Compounds	**LOR**																		
Phenol	0.5		34,000	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
2-Chlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
2-Methylphenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
3- & 4-Methylphenol	1.0	-	-	-	-	-	-	-	<1.0	-	<3.0	-	-	-	-	<1.0	-	<1.0	-	<10.0	<1.0
2-Nitrophenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
2.4-Dimethylphenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
2.4-Dichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
2.6-Dichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
4-Chloro-3-Methylphenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
2.4.6-Trichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
2.4.5-Trichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	<1.5	-	-	-	-	<0.5	-	<0.5	-	<5.0	<0.5
Pentachlorophenol	2.0	-	-	-	-	-	-	-	<2.0	-	<3	-	-	-	-	<2.0	-	<1	-	<10	<2.0
Phthalate Esters																			
Dimethyl phthalate	0.5	-	-	-	280,000[2]	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Diethyl phthalate	0.5	-	-	-	220,000[2]	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Di-n-butyl phthalate	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Butyl benzyl phthalate	0.5	-	-	-	56,000[2]	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
bis(2-ethylhexyl) phthalate	5.0	-	-	-	140[2]	-	-	-	-	-	<15.0	-	-	-	-	-	-	<5.0	-	<50.0	-
Di-n-octylphthalate	0.5	-	-	-	11,000[2]	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Nitrosamines																			
N-Nitrosomethylethylamine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
N-Nitrosodiethylamine	0.5	-	-	-	0.013[2]	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
N-Nitrosopyrrolidine	1.0	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	<1.0	-	<10.0	-
N-Nitrosomorpholine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
N-Nitrosodi-n-propylamine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
N-Nitrosopiperidine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
N-Nitrosodibutylamine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
N-Nitrosodiphenyl & Diphenylamine	1.0	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	<1.0	-	<10.0	-
Methapyrilene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Nitroaromatics and Ketones																			
2-Picoline	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Acetophenone	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Nitrobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Isophorone	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
2.6-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	<1.0	-	<10.0	-
2.4-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	<1.0	-	<10.0	-
1-Naphthylamine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
4-Nitroquinoline-N-oxide	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
5-Nitro-o-toluidine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Azobenzene	1.0	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	-	<1	-	<10	-
1.3.5-Trinitrobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Phenacetin	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
4-Aminobiphenyl	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Pentachloronitrobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Pronamide	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Dimethylaminoazobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Chlorobenzilate	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Haloethers																			
Bis(2-chloroethyl) ether	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Bis(2-chloroethoxy) methane	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
4-Chlorophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
4-Bromophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	3/4/12	4/4/12	4/4/12	4/4/12	10/4/12	10/4/12	3/4/12	3/4/12	3/4/12	4/4/12	5/4/12	5/4/12	5/4/12	11/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs
SEMIVOLATILE ORGANIC COMPOUNDS						
Phenolic Compounds	**LOR**					
Phenol	0.5		34,000	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
2-Chlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
2-Methylphenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
3- & 4-Methylphenol	1.0	-	-	-	-	-	-	-	<1.0	-	-	-	<1.0	-	-	-	-	-	-	<1.0	-	-	-
2-Nitrophenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
2.4-Dimethylphenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
2.4-Dichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
2.6-Dichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
4-Chloro-3-Methylphenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
2.4.6-Trichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
2.4.5-Trichlorophenol	0.5	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-
Pentachlorophenol	2.0	-	-	-	-	-	-	-	<2.0	-	-	-	<2.0	-	-	-	-	-	-	<2.0	-	-	-
Phthalate Esters																							
Dimethyl phthalate	0.5	-	-	-	280,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	0.5	-	-	-	220,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butyl phthalate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	0.5	-	-	-	56,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-ethylhexyl) phthalate	5.0	-	-	-	140[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octylphthalate	0.5	-	-	-	11,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrosamines																							
N-Nitrosomethylethylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiethylamine	0.5	-	-	-	0.013[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosopyrrolidine	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosomorpholine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosopiperidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodibutylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenyl & Diphenylamine	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methapyrilene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitroaromatics and Ketones																							
2-Picoline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Naphthylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroquinoline-N-oxide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5-Nitro-o-toluidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azobenzene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3.5-Trinitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenacetin	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Aminobiphenyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloronitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pronamide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylaminoazobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzilate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haloethers																							
Bis(2-chloroethyl) ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethoxy) methane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B37-0.7	B37-3.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5	B40-1.2
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	5/4/12	5/4/12	5/4/12	5/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12
Sample Matrix	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs
SEMIVOLATILE ORGANIC COMPOUNDS						
Phenolic Compounds	**LOR**					
Phenol	0.5		34,000	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
2-Chlorophenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
2-Methylphenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
3- & 4-Methylphenol	1.0	-	-	-	-	-	-	-	-	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	-	-	<1.0	-	-	-
2-Nitrophenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
2.4-Dimethylphenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
2.4-Dichlorophenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
2.6-Dichlorophenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
4-Chloro-3-Methylphenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
2.4.6-Trichlorophenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
2.4.5-Trichlorophenol	0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-
Pentachlorophenol	2.0	-	-	-	-	-	-	-	-	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	-	-	<2.0	-	-	-
Phthalate Esters																							
Dimethyl phthalate	0.5	-	-	-	280,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	0.5	-	-	-	220,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butyl phthalate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	0.5	-	-	-	56,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-ethylhexyl) phthalate	5.0	-	-	-	140[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octylphthalate	0.5	-	-	-	11,000[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrosamines																							
N-Nitrosomethylethylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiethylamine	0.5	-	-	-	0.013[2]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosopyrrolidine	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosomorpholine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosopiperidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodibutylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenyl & Diphenylamine	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methapyrilene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitroaromatics and Ketones																							
2-Picoline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-Dinitrotoluene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Naphthylamine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroquinoline-N-oxide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5-Nitro-o-toluidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azobenzene	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3.5-Trinitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenacetin	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Aminobiphenyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloronitrobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pronamide	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylaminoazobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzilate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haloethers																							
Bis(2-chloroethyl) ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethoxy) methane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	11/4/12	11/4/12	11/4/12	11/4/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	3/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs
SEMIVOLATILE ORGANIC COMPOUNDS						
Phenolic Compounds	**LOR**					
Phenol	0.5		34,000	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
2-Chlorophenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
2-Methylphenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
3- & 4-Methylphenol	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	-
2-Nitrophenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
2.4-Dimethylphenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
2.4-Dichlorophenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
2.6-Dichlorophenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
4-Chloro-3-Methylphenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
2.4.6-Trichlorophenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
2.4.5-Trichlorophenol	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
Pentachlorophenol	2.0	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	<1	-	<1	-	-	-
Phthalate Esters																					
Dimethyl phthalate	0.5	-	-	-	280,000[2]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Diethyl phthalate	0.5	-	-	-	220,000[2]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Di-n-butyl phthalate	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Butyl benzyl phthalate	0.5	-	-	-	56,000[2]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
bis(2-ethylhexyl) phthalate	5.0	-	-	-	140[2]	-	-	<5.0	-	-	-	-	-	-	-	<5.0	-	<5.0	-	-	<5.0
Di-n-octylphthalate	0.5	-	-	-	11,000[2]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Nitrosamines																					
N-Nitrosomethylethylamine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
N-Nitrosodiethylamine	0.5	-	-	-	0.013[2]	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
N-Nitrosopyrrolidine	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
N-Nitrosomorpholine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
N-Nitrosodi-n-propylamine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
N-Nitrosopiperidine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
N-Nitrosodibutylamine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
N-Nitrosodiphenyl & Diphenylamine	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
Methapyrilene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Nitroaromatics and Ketones																					
2-Picoline	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Acetophenone	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Nitrobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Isophorone	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
2.6-Dinitrotoluene	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
2.4-Dinitrotoluene	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
1-Naphthylamine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4-Nitroquinoline-N-oxide	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
5-Nitro-o-toluidine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Azobenzene	1.0	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	<1	-	<1	-	-	<1
1.3.5-Trinitrobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Phenacetin	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4-Aminobiphenyl	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Pentachloronitrobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Pronamide	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Dimethylaminoazobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Chlorobenzilate	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Haloethers																					
Bis(2-chloroethyl) ether	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Bis(2-chloroethoxy) methane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4-Chlorophenyl phenyl ether	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4-Bromophenyl phenyl ether	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0
Sample Date	3/4/12	5/4/12	11/4/12	11/4/12	11/4/12	11/4/12	4/4/12	4/4/12	11/4/12
Sample Matrix	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs									
SEMIVOLATILE ORGANIC COMPOUNDS															
Phenolic Compounds	**LOR**														
Phenol	0.5		34,000	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2-Chlorophenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2-Methylphenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
3- & 4-Methylphenol	1.0	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0	-	-	-	<1.0	-
2-Nitrophenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2.4-Dimethylphenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2.4-Dichlorophenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2.6-Dichlorophenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Chloro-3-Methylphenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2.4.6-Trichlorophenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2.4.5-Trichlorophenol	0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Pentachlorophenol	2.0	-	-	-	-	-	-	<1	<1	<1	<1	-	-	-	<1	-
Phthalate Esters															
Dimethyl phthalate	0.5	-	-	-	280,000[2]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Diethyl phthalate	0.5	-	-	-	220,000[2]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Di-n-butyl phthalate	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Butyl benzyl phthalate	0.5	-	-	-	56,000[2]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
bis(2-ethylhexyl) phthalate	5.0	-	-	-	140[2]	-	-	-	<5.0	<5.0	<5.0	-	-	-	<5.0	-
Di-n-octylphthalate	0.5	-	-	-	11,000[2]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Nitrosamines															
N-Nitrosomethylethylamine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
N-Nitrosodiethylamine	0.5	-	-	-	0.013[2]	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
N-Nitrosopyrrolidine	1.0	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	-
N-Nitrosomorpholine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
N-Nitrosodi-n-propylamine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
N-Nitrosopiperidine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
N-Nitrosodibutylamine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
N-Nitrosodiphenyl & Diphenylamine	1.0	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	-
Methapyrilene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Nitroaromatics and Ketones															
2-Picoline	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Acetophenone	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Nitrobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Isophorone	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2.6-Dinitrotoluene	1.0	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	-
2.4-Dinitrotoluene	1.0	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	-
1-Naphthylamine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Nitroquinoline-N-oxide	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
5-Nitro-o-toluidine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Azobenzene	1.0	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	<1	-
1.3.5-Trinitrobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Phenacetin	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Aminobiphenyl	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Pentachloronitrobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Pronamide	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Dimethylaminoazobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Chlorobenzilate	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Haloethers															
Bis(2-chloroethyl) ether	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Bis(2-chloroethoxy) methane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Chlorophenyl phenyl ether	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Bromophenyl phenyl ether	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	11/4/12	5/4/12	5/4/12	3/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12
Sample Matrix	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs														
Chlorinated Hydrocarbons																					
1.3-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.4-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene (HCB)	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines and Benzidines																					
Aniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3`-Dichlorobenzidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides																					
alpha-BHC	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
beta-BHC	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Hexachlorobenzene (HCB)	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
gamma-BHC	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
delta-BHC	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Heptachlor	0.05	10	40	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Aldrin	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Heptachlor epoxide	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
alpha-Endosulfan	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
4.4`-DDE	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
cis-Chlordane	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
trans-Chlordane	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Endrin	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
beta-Endosulfan	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
4.4`-DDD	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Endosulfan sulfate	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Endrin aldehyde	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
4.4`-DDT	0.2	-	-	-	-	-	-	-	-	-	<0.2	<4.0	-	-	<0.2	-	-	-	-	-	-
Endrin Ketone	0.05	-	-	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Methoxychlor	0.2	-	-	-	-	-	-	-	-	-	<0.2	<4.0	-	-	<0.2	-	-	-	-	-	-
Sum of Aldrin + Dieldrin	0.05	10	40	-	-	-	-	-	-	-	<0.05	<1.00	-	-	<0.05	-	-	-	-	-	-
Sum of DDD + DDE + DDT	-	200	800	-	-	-	-	-	-	-	<0.3	<6.0	-	-	<0.3	-	-	-	-	-	-
Organophosphorus Pesticides																					
Dichlorvos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethoate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diazinon	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos-methyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malathion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenthion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pirimphos-ethyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorfenvinphos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prothiofos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	10/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12	10/4/12
Sample Matrix	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs													
Chlorinated Hydrocarbons																				
1.3-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
1.4-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
1.2-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Hexachloroethane	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
1.2.4-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Hexachloropropylene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Hexachlorobutadiene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Hexachlorocyclopentadiene	2.5	-	-	-	-	-	-	-	-	-	<7.5	-	-	-	-	-	-	<2.5	-	<25.0	-
Pentachlorobenzene	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Hexachlorobenzene (HCB)	1.0	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	<1.0	-	<10.0	-
Anilines and Benzidines																				
Aniline	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
4-Chloroaniline	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
2-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	<1.0	-	<10.0	-
3-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	<1.0	-	<10.0	-
Dibenzofuran	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
4-Nitroaniline	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Carbazole	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
3.3`-Dichlorobenzidine	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Organochlorine Pesticides																				
alpha-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
beta-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
Hexachlorobenzene (HCB)	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	<0.15	-	-	-	-	<0.05
gamma-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
delta-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
Heptachlor	0.05	10	40	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
Aldrin	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
Heptachlor epoxide	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
alpha-Endosulfan	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
4.4`-DDE	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
cis-Chlordane	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	<0.15	-	-	-	-	<0.05
Dieldrin	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
trans-Chlordane	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	<0.15	-	-	-	-	<0.05
Endrin	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
beta-Endosulfan	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
4.4`-DDD	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
Endosulfan sulfate	0.05	-	-	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
Endrin aldehyde	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	<0.15	-	-	-	-	<0.05
4.4`-DDT	0.2	-	-	-	-	-	-	-	<0.2	-	<3.0	-	-	-	-	<0.6	-	<1.0	-	<10.0	<0.2
Endrin Ketone	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	<0.15	-	-	-	-	<0.05
Methoxychlor	0.2	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	<0.6	-	-	-	-	<0.2
Sum of Aldrin + Dieldrin	0.05	10	40	-	-	-	-	-	<0.05	-	<1.5	-	-	-	-	<0.15	-	<0.5	-	<5.0	<0.05
Sum of DDD + DDE + DDT	-	200	800	-	-	-	-	-	<0.3	-	<6.0	-	-	-	-	<0.9	-	<2.0	-	<20.0	<0.3
Organophosphorus Pesticides																				
Dichlorvos	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Dimethoate	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Diazinon	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Chlorpyrifos-methyl	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Malathion	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Fenthion	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Chlorpyrifos	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Pirimphos-ethyl	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Chlorfenvinphos	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Prothiofos	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-
Ethion	0.5	-	-	-	-	-	-	-	-	-	<1.5	-	-	-	-	-	-	<0.5	-	<5.0	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	10/4/12	10/4/12	3/4/12	4/4/12	4/4/12	4/4/12	10/4/12	10/4/12	3/4/12	3/4/12	3/4/12	4/4/12	5/4/12	5/4/12	5/4/12	11/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs																
Chlorinated Hydrocarbons																							
1.3-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.4-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene (HCB)	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines and Benzidines																							
Aniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3`-Dichlorobenzidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides																							
alpha-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
beta-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Hexachlorobenzene (HCB)	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
gamma-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
delta-BHC	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Heptachlor	0.05	10	40	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Aldrin	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Heptachlor epoxide	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
alpha-Endosulfan	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
4.4`-DDE	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
cis-Chlordane	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Dieldrin	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
trans-Chlordane	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Endrin	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
beta-Endosulfan	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
4.4`-DDD	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Endosulfan sulfate	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Endrin aldehyde	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
4.4`-DDT	0.2	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	-	-	-	-	<0.4	-	-	-
Endrin Ketone	0.05	-	-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Methoxychlor	0.2	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	-	-	-	-	<0.4	-	-	-
Sum of Aldrin + Dieldrin	0.05	10	40	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.10	-	-	-
Sum of DDD + DDE + DDT	-	200	800	-	-	-	-	-	<0.3	-	-	-	<0.3	-	-	-	-	-	-	<0.6	-	-	-
Organophosphorus Pesticides																							
Dichlorvos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethoate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diazinon	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos-methyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malathion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenthion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pirimphos-ethyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorfenvinphos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prothiofos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B37-0.7	B37-3.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5	B40-1.2
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	10/4/12	11/4/12	11/4/12	11/4/12	11/4/12	5/4/12	5/4/12	5/4/12	5/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12
Sample Matrix	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs																
Chlorinated Hydrocarbons																							
1.3-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2-Dichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2.4-Trichlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloropropylene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobenzene	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene (HCB)	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines and Benzidines																							
Aniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3`-Dichlorobenzidine	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides																							
alpha-BHC	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
beta-BHC	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Hexachlorobenzene (HCB)	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
gamma-BHC	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
delta-BHC	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Heptachlor	0.05	10	40	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Aldrin	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Heptachlor epoxide	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
alpha-Endosulfan	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
4.4`-DDE	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
cis-Chlordane	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Dieldrin	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
trans-Chlordane	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Endrin	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
beta-Endosulfan	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
4.4`-DDD	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Endosulfan sulfate	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Endrin aldehyde	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
4.4`-DDT	0.2	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	<0.2	-	<0.6	<0.2
Endrin Ketone	0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Methoxychlor	0.2	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	<0.2	-	<0.6	<0.2
Sum of Aldrin + Dieldrin	0.05	10	40	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	<0.05	-	<0.15	<0.05
Sum of DDD + DDE + DDT	-	200	800	-	-	-	-	-	-	<0.3	-	-	-	-	-	-	-	-	-	<0.3	-	<0.9	<0.3
Organophosphorus Pesticides																							
Dichlorvos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethoate	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diazinon	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos-methyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malathion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenthion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pirimphos-ethyl	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorfenvinphos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prothiofos	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethion	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	11/4/12	11/4/12	11/4/12	11/4/12	11/4/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	2/5/12	3/4/12
Sample Matrix	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs												
Chlorinated Hydrocarbons																			
1.3-Dichlorobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.4-Dichlorobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2-Dichlorobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Hexachloroethane	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
1.2.4-Trichlorobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Hexachloropropylene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Hexachlorobutadiene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Hexachlorocyclopentadiene	2.5	-	-	-	-	-	-	<2.5	-	-	-	-	-	-	-	<2.5	-	<2.5	-	-	<2.5
Pentachlorobenzene	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Hexachlorobenzene (HCB)	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
Anilines and Benzidines																			
Aniline	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4-Chloroaniline	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
2-Nitroaniline	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
3-Nitroaniline	1.0	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
Dibenzofuran	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4-Nitroaniline	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Carbazole	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
3.3`-Dichlorobenzidine	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Organochlorine Pesticides																			
alpha-BHC	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
beta-BHC	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Hexachlorobenzene (HCB)	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
delta-BHC	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Heptachlor	0.05	10	40	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Aldrin	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Heptachlor epoxide	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
alpha-Endosulfan	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4.4`-DDE	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
cis-Chlordane	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-
Dieldrin	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
trans-Chlordane	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
beta-Endosulfan	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
4.4`-DDD	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Endosulfan sulfate	0.05	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Endrin aldehyde	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4`-DDT	0.2	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	<1.0	-	<1.0	-	-	<1.0
Endrin Ketone	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of Aldrin + Dieldrin	0.05	10	40	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Sum of DDD + DDE + DDT	-	200	800	-	-	-	-	<2.0	-	-	-	-	-	-	-	<2.0	-	<2.0	-	-	<2.0
Organophosphorus Pesticides																			
Dichlorvos	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Dimethoate	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Diazinon	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Chlorpyrifos-methyl	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Malathion	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Fenthion	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Chlorpyrifos	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Pirimphos-ethyl	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Chlorfenvinphos	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Prothiofos	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5
Ethion	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0
PID Result (ppm)	0	0	0	0	0	0	0	0	0
Sample Date	3/4/12	5/4/12	11/4/12	11/4/12	11/4/12	11/4/12	4/4/12	4/4/12	11/4/12
Sample Matrix	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural

	Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs								
Chlorinated Hydrocarbons															
1.3-Dichlorobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.4-Dichlorobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2-Dichlorobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Hexachloroethane	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
1.2.4-Trichlorobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Hexachloropropylene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Hexachlorobutadiene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Hexachlorocyclopentadiene	2.5	-	-	-	-	-	-	-	<2.5	<2.5	<2.5	-	-	-	<2.5	-
Pentachlorobenzene	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Hexachlorobenzene (HCB)	1.0	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	-
Anilines and Benzidines															
Aniline	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Chloroaniline	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
2-Nitroaniline	1.0	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	-
3-Nitroaniline	1.0	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	-	-	<1.0	-
Dibenzofuran	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4-Nitroaniline	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Carbazole	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
3.3`-Dichlorobenzidine	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Organochlorine Pesticides															
alpha-BHC	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
beta-BHC	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Hexachlorobenzene (HCB)	0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
gamma-BHC	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
delta-BHC	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Heptachlor	0.05	10	40	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Aldrin	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Heptachlor epoxide	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
alpha-Endosulfan	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4.4`-DDE	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
cis-Chlordane	0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
trans-Chlordane	0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
Endrin	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
beta-Endosulfan	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
4.4`-DDD	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Endosulfan sulfate	0.05	-	-	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Endrin aldehyde	0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
4.4`-DDT	0.2	-	-	-	-	-	-	<0.2	<1.0	<1.0	<1.0	-	-	-	<1.0	-
Endrin Ketone	0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
Methoxychlor	0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-
Sum of Aldrin + Dieldrin	0.05	10	40	-	-	-	-	<0.05	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Sum of DDD + DDE + DDT	-	200	800	-	-	-	-	<0.3	<2.0	<2.0	<2.0	-	-	-	<2.0	-
Organophosphorus Pesticides															
Dichlorvos	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Dimethoate	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Diazinon	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Chlorpyrifos-methyl	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Malathion	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Fenthion	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Chlorpyrifos	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Pirimphos-ethyl	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Chlorfenvinphos	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Prothiofos	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-
Ethion	0.5	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-

TABLE A1:
Soil Analytical Summary
33 Jack Road, Cheltenham, Victoria

Sample ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4
PID Result (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sample Date	4/4/12	4/4/12	4/4/12	4/4/12	4/4/12	11/4/12	5/4/12	5/4/12	3/4/12	3/4/12	3/4/12	3/4/12	3/4/12	10/4/12
Sample Matrix	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill

Guideline	NEPM A	NEPM D	NEPM EILs	NEPM Background Range	NSW EPA HILs	NSW EPA EILs

Notes:
All concentrations are listed in mg/kg.
" - " Denotes No Investigation Level Available or Sample Not Analysed
* Duplicate/Triplicate Sample Concentration Adopted For Interpretive Use Due to RPD Exceedance
LOR Denotes Laboratory Limit of Reporting

Guidelines:
NEPM HIL A denotes Health Investigation Levels for Standard Residential Setting with Soil Access.
NEPM HIL D denotes Health Investigation Levels for Residential Setting with Minimal Opportunities for Soil Access.
NEPM EILs denotes Interim Urban Ecological Investigation Levels based on considerations of phytotoxicity.
NSW EPA HILs denotes New South Wales Environmental Protection Authority (Human Health Investigation Levels - sensitive land use).
NSW EPA EILs denotes New South Wales Environmental Protection Authority (ecological investigation levels)
NEPM Background Range NEPM background ranges for where HILs and EILs are set.
1. Netherland (2000) Circular on Target Values & Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning & the Environment, Netherlands Government (Dutch Intervention Value).
2. USEPA (2004) Region 9 Prelinimary Remediation Goals (PRG) assuming direct contact exposure pathways for residential use.

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	4/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012	11/04/2012	5/04/2012	5/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	11/04/2012
								Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
								Geology	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill
								Field ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Aniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
BTEX	Benzene	mg/kg	0.1	50	0.5	0.5		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Ethylbenzene	mg/kg	0.1	70	55	55		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Toluene	mg/kg	0.1	85	160/220/310	160/220/310		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (m & p)	mg/kg	0.2	105				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (o)	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene Total	mg/kg	0.3		40/60/95	40/60/95		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
	C6-C10 less BTEX (F1)	mg/kg	20		45/70/110	45/70/110		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,1,1-trichloroethane	mg/kg	0.05	5*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,1,2,2-tetrachloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,1,2-trichloroethane	mg/kg	0.05	5*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,1-dichloroethane	mg/kg	0.05	5*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,1-dichloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,2,3-trichloropropane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,2-dichloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,2-dichloropropane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,3-dichloropropane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Bromoform	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Carbon tetrachloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Chlorodibromomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Chloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	Chloroform	mg/kg	0.05	5				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Chloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	cis-1,2-dichloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	cis-1,3-dichloropropene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Dibromomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Dichloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<7.5	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Trichloroethene	mg/kg	0.05	0.01*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Tetrachloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	trans-1,2-dichloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	trans-1,3-dichloropropene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Vinyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	11/04/2012	11/04/2012	11/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	3/04/2012	4/04/2012	4/04/2012	4/04/2012	10/04/2012	10/04/2012	3/04/2012	3/04/2012
								Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
								Geology	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural
								Field ID	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	<1	-	<10	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	<1	-	<10	-	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	<1	-	<10	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	50	0.5	0.5		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Ethylbenzene	mg/kg	0.1	70	55	55		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Toluene	mg/kg	0.1	85	160/220/310	160/220/310		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (m & p)	mg/kg	0.2	105				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (o)	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene Total	mg/kg	0.3		40/60/95	40/60/95		<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	C6-C10 less BTEX (F1)	mg/kg	20		45/70/110	45/70/110		<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,1-trichloroethane	mg/kg	0.05	5*				-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,2,2-tetrachloroethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,2-trichloroethane	mg/kg	0.05	5*				-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloroethane	mg/kg	0.05	5*				-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloroethene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloropropane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichloropropane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Bromoform	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon tetrachloride	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorodibromomethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Chloroethane	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Chloroform	mg/kg	0.05	5				-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Chloromethane	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	cis-1,2-dichloroethene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	cis-1,3-dichloropropene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Dibromomethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Dichloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	mg/kg	0.1					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	<2.5	-	<25	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	0.01*				-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Tetrachloroethene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,2-dichloroethene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,3-dichloropropene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	<1	-	<10	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	<1	-	<10	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	3/04/2012	4/04/2012	5/04/2012	5/04/2012	5/04/2012	11/04/2012	11/04/2012	10/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	5/04/2012	5/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill
Field ID	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (m & p)	mg/kg	0.2	**105**				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (o)	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,1-trichloroethane	mg/kg	0.05	**5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,2,2-tetrachloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,2-trichloroethane	mg/kg	0.05	**5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloroethane	mg/kg	0.05	**5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloropropane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichloropropane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromoform	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon tetrachloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorodibromomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chloroform	mg/kg	0.05	**5**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	cis-1,2-dichloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	cis-1,3-dichloropropene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibromomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tetrachloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,2-dichloroethene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,3-dichloropropene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	4/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	3/04/2012	3/04/2012	5/04/2012	11/04/2012	11/04/2012
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Natural	Natural
Field ID	B40-1.2	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	<1	-	-	-	-	-	-	<1	-	<1	-	-	<1	<1	<1
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	N-Nitrosomethylethylamine	mg/kg						-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	<1	-	-	-	-	-	-	<1	-	<1	-	-	<1	<1	<1
	3-nitroaniline	mg/kg						-	<1	-	-	-	-	-	-	<1	-	<1	-	-	<1	<1	<1
	4-chloroaniline	mg/kg						-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.5	<0.5
	4-nitroaniline	mg/kg						-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.5	<0.5
	2-methyl-5-nitroaniline	mg/kg						-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.5	<0.5
	Aniline	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.5	<0.5
BTEX	Benzene	mg/kg	0.1	50	0.5	0.5		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Ethylbenzene	mg/kg	0.1	70	55	55		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Toluene	mg/kg	0.1	85	160/220/310	160/220/310		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (m & p)	mg/kg	0.2	105				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene (o)	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Xylene Total	mg/kg	0.3		40/60/95	40/60/95		<0.5	-	<0.5	<0.5	<0.5	<0.5	**1**	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		45/70/110	45/70/110		<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	-	-
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,1,1-trichloroethane	mg/kg	0.05	5*				-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,1,2,2-tetrachloroethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,1,2-trichloroethane	mg/kg	0.05	5*				-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,1-dichloroethane	mg/kg	0.05	5*				-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,1-dichloroethene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,1-dichloropropene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,2,3-trichloropropane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,2-dichloroethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,2-dichloropropane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	1,3-dichloropropane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	2,2-dichloropropane	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Bromoform	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Carbon tetrachloride	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Chlorodibromomethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Chloroethane	mg/kg	0.05					-	<5	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5
	Chloroform	mg/kg	0.05	5				-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Chloromethane	mg/kg	0.05					-	<5	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5
	cis-1,2-dichloroethene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	cis-1,3-dichloropropene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Dibromomethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Dichloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	mg/kg	0.1					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Hexachlorocyclopentadiene	mg/kg	0.5					-	<2.5	-	-	-	-	-	-	<2.5	-	<2.5	-	-	<2.5	-	<2.5
	Hexachloroethane	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Trichloroethene	mg/kg	0.05	0.01*				-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Tetrachloroethene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	trans-1,2-dichloroethene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	trans-1,3-dichloropropene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	Vinyl chloride	mg/kg	0.05					-	<5	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5
	2,4-Dinitrotoluene	mg/kg	0.5					-	<1	-	-	-	-	-	-	<1	-	<1	-	-	<1	<1	<1
	2,6-dinitrotoluene	mg/kg	0.5					-	<1	-	-	-	-	-	-	<1	-	<1	-	-	<1	<1	<1
	Nitrobenzene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.5	<0.5

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	11/04/2012	11/04/2012	4/04/2012	4/04/2012	11/04/2012	19/02/2014	26/02/2014	13/03/2014	13/03/2014	13/03/2014	13/03/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	LRM TIT Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural
Field ID	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0	NW PIT VAL 1	Pit-Base-East	Tank Pit- East Wall	Tank Pit- North Wall	Tank Pit- South Wall	Tank Pit- West Wall	MW10 1.0	MW10 10.5	MW10 2.0	MW11 7.0	MW12 10.0	MW13 6.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil														
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	<1	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						-	-	-	-	-	<0.2	-	<2	<2	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	<1	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	50	0.5	0.5		<0.2	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-
	Ethylbenzene	mg/kg	0.1	70	55	55		<0.5	<0.5	-	<0.5	<0.5	<0.1	<1	<1	<1	<1	<1	-	-	-	-	-	-
	Toluene	mg/kg	0.1	85	160/220/310	160/220/310		<0.5	<0.5	-	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
	Xylene (m & p)	mg/kg	0.2	105				<0.5	<0.5	-	<0.5	<0.5	<0.2	<2	<2	<2	<2	<2	-	-	-	-	-	-
	Xylene (o)	mg/kg	0.1					<0.5	<0.5	-	<0.5	<0.5	<0.1	<1	<1	<1	<1	<1	-	-	-	-	-	-
	Xylene Total	mg/kg	0.3		40/60/95	40/60/95		<0.5	<0.5	-	-	<0.5	<0.3	<3	<3	<3	<3	<3	-	-	-	-	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		45/70/110	45/70/110		<10	<10	<10	<10	<10	<20	<25	<25	<25	<25	<25	-	-	-	-	-	-
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05	5*				-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05	5*				-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05	5*				-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloropropene	mg/kg	0.5					-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichloropropane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	2,2-dichloropropane	mg/kg	0.5					-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05					-	-	-	<5	-	<0.05	-	<1	<1	<1	<1	-	-	-	-	-	-
	Chloroform	mg/kg	0.05	5				-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05					-	-	-	<5	-	<0.05	-	<1	<1	<1	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05					-	-	-	-	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.1					-	-	-	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	<2.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	0.01*				-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05					-	-	-	<5	-	<0.05	-	<1	<1	<1	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	<1	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	<1	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Fill
								Field ID	TP01-0.3	TP01-0.6	TP01-1.5	TP02-0.5	TP02-1.0	TP03-0.5	TP04-0.4	TP04-0.9	TP05-0.2	TP05-0.6	TP06-0.5	TP06-0.8	TP06-1.4	TP06-2.5	TP07-0.5	TP07-0.8	TP07-1.3	TP07-1.5	TP08-0.2
	Heptachlor (including its epoxide)	mg/kg						<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Xylene (m & p)	mg/kg	0.2	**105**				<0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-
	Xylene (o)	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		<0.3	-	-	-	-	-	<0.3	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		<20	-	-	-	<20	-	<20	-	-	-	-	<20	-	-	-	-	<20	-	<20
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chloroform	mg/kg	0.05	**5**				<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.1					<0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Natural	Natural	Natural	Natural	Fill	Fill	
Field ID	TP08-0.5	TP08-1.5	TP09-0.2	TP09-0.5	TP09-1.0	TP09-1.8	TP10-0.5	TP10-0.7	TP10-1.7	TP11-0.5	TP11-0.8	TP11-1.6	TP12-0.2	TP12-0.5	TP12-1.0	TP12-BH-1.2	TP12-BH-1.5	TP12-1.8	TP13-0.3	TP14-0.2	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
	Heptachlor (including its epoxide)	mg/kg						-	-	<1	-	-	-	-	-	-	<1	-	-	<1	-	-	-	-	-	<0.1	-
	Trihalomethanes (ADW 2004)	mg/kg						<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Acetic Acid	mg/kg	20					-	-	<20	-	-	-	-	-	-	<20	-	-	<20	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	<0.1	-
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	<0.1	-
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	<0.1	-
	Xylene (m & p)	mg/kg	0.2	**105**				-	-	<0.2	-	-	-	-	-	-	<0.2	-	-	<0.2	-	-	-	-	-	<0.2	-
	Xylene (o)	mg/kg	0.1					-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	<0.1	-
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		-	-	<0.3	-	-	-	-	-	-	<0.3	-	-	<0.3	-	-	-	-	-	<0.3	-
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		-	<20	-	<20	-	-	<20	-	-	<20	-	-	<20	-	-	-	<20	<20	<20	-
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,2-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	Bromodichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	Chloroform	mg/kg	0.05	**5**				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.1					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	<0.2	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	16/05/2014	15/05/2014	26/06/2014	15/05/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Fill	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural
								Field ID	TP14-0.6	TP14-0.6	TP14-0.9	TP14-BH1-0	TP14-1.4	TP14-BH-1.5	TP15-0.2	TP15-0.5	TP15-0.6	TP15-1.5	TP16-0.4	TP16-0.5	TP16-0.7	TP16-BH-1.0	TP16-BH-1.5	TP16-1.5	TP17-0.2	TP17-0.4	TP17-1.3
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-
	Trihalomethanes (ADW 2004)	mg/kg						<0.2	-	<0.2	-	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	<20	-	-	-	<20	-	-	-	-	-	-	<20	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	<5	<5	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	<20	-	-	-	<20	-	-	-	-	-	<20	<20	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	<20	-	-	-	<20	-	-	-	-	-	<20	<20	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-
	Xylene (m & p)	mg/kg	0.2	**105**				-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	-	-	-	-	<0.2	-	-
	Xylene (o)	mg/kg	0.1					-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		-	-	-	-	-	-	<0.3	-	-	-	<0.3	-	-	-	-	-	-	<0.3	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<20	-	-
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05	**5***				<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05	**5***				<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05	**5***				<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,2-dichloropropane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	<0.05	-	-
	Bromodichloromethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-	-
	Chloroform	mg/kg	0.05	**5**				<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.1					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Natural
								Field ID	TP18-0.5	TP18-0.6	TP18-1.5	TP19-0.2	TP20-0.4	TP20-0.6	TP20-0.8	TP20-1.8	TP21-0.2	TP21-0.5	TP22-0.2	TP22-0.4	TP23-0.2	TP23-0.7	TP23-1.5	TP24-0.4	TP24-1.0	TP24-2.0	TP25-0.4	TP26-0.4
	Heptachlor (including its epoxide)	mg/kg						<1	-	-	<0.1	<1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2
	Acetic Acid	mg/kg	20					<20	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					<5	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					<20	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					<20	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		<0.1	-	-	<0.1	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		<0.1	-	-	<0.1	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		<0.1	-	-	<0.1	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-
	Xylene (m & p)	mg/kg	0.2	**105**				<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-
	Xylene (o)	mg/kg	0.1					<0.1	-	-	<0.1	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		<0.3	-	-	<0.3	<0.3	-	-	-	-	-	-	-	<0.3	-	-	-	-	-	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		<20	-	-	<20	<20	-	-	-	<20	<20	<20	<20	<20	<20	<20	-	<20	-	<20	<20
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,1,1-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,1,2-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,1-dichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,1-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,2-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,3-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Bromoform	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Carbon tetrachloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Chlorodibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Chloroethane	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Chloroform	mg/kg	0.05	**5**				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Chloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Dibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Dichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Hexachlorobutadiene	mg/kg	0.1					<0.5	-	-	<0.2	<0.5	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Tetrachloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Vinyl chloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill
								Field ID	TP26-0.5	TP26-1.1	TP27-0.4	TP28-0.4	TP29-0.5	TP30-0.2	TP31-0.2	TP31-BH-0.5	TP31-BH-1.0	TP32-0.5	TP33-0.2	TP34-0.4	TP34-1.0	TP34-1.5	TP35-0.4	TP35-1.0	TP35-1.8	TP36-0.1	TP36-0.4
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	<0.1	<1	-	-	-	<0.55	-	-	-	<1	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Acetic Acid	mg/kg	20					-	-	-	-	-	<20	<20	-	-	-	<20	-	-	-	<20	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		-	-	-	-	-	<0.1	<0.1	<0.2	<0.2	-	<0.1	-	-	-	<0.1	-	-	-	-
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		-	-	-	-	-	<0.1	<0.1	<1	<1	-	<0.1	-	-	-	<0.1	-	-	-	-
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		-	-	-	-	-	<0.1	<0.1	<0.5	<0.5	-	<0.1	-	-	-	<0.1	-	-	-	-
	Xylene (m & p)	mg/kg	0.2	**105**				-	-	-	-	-	<0.2	<0.2	<2	<2	-	<0.2	-	-	-	<0.2	-	-	-	-
	Xylene (o)	mg/kg	0.1					-	-	-	-	-	<0.1	<0.1	<1	<1	-	<0.1	-	-	-	<0.1	-	-	-	-
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		-	-	-	-	-	<0.3	<0.3	-	-	-	<0.3	-	-	-	<0.3	-	-	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		-	-	<20	<20	<20	<20	<20	<25	<25	<20	-	-	-	-	-	-	-	-	-
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Chloroform	mg/kg	0.05	**5**				<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.1					-	-	-	-	-	<0.2	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill
								Field ID	TP36-0.9	TP36-1.6	TP37-0.5	TP37-0.9	TP37-1.5	TP38-0.5	TP39-0.2	TP40-0.1	TP40-0.5	TP40-0.8	TP40-1.5	TP41-0.5	TP42-0.3	TP42-0.3B	TP43-0.2	TP43-0.5	TP43-1.0	TP43-1.5	TP44-0.2	TP45-0.1
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<0.1	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	<20	<20	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	-	-	-
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	-	-	-
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	-	-	-
	Xylene (m & p)	mg/kg	0.2	**105**				-	-	-	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	-	-	-	-	-
	Xylene (o)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	-	-	-
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		-	-	-	-	-	-	-	-	-	-	-	-	<0.3	<0.3	<0.3	-	-	-	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		-	-	-	-	-	-	<20	-	-	-	-	<20	<20	-	<20	-	-	-	-	-
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,1,1-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,1,2,2-tetrachloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,1,2-trichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,1-dichloroethane	mg/kg	0.05	**5***				<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,1-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,1-dichloropropene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,2-dibromo-3-chloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,2-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,3-dichloropropane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	2,2-dichloropropane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	Bromodichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Bromoform	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Carbon tetrachloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Chlorodibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Chloroethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	Chloroform	mg/kg	0.05	**5**				<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Chloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	cis-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	cis-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Dibromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Dichloromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Hexachlorobutadiene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.2	-	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Tetrachloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	trans-1,2-dichloroethene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	trans-1,3-dichloropropene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Vinyl chloride	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	18/08/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Fill	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
								Field ID	MW24-0.3	MW24-1.0	MW24-2.0	SW1-1.0	SW2-1.0	SW3-0.6	SW4-0.4	SW5-0.4	SW6-0.7	SW7-0.5	SW8-0.6	SW9-0.4	SW10-0.3	SW11-0.6	SW12-0.6	SW13-0.3	SW14-0.4	SW15-0.5	G1-0.2
	Heptachlor (including its epoxide)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetic Acid	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/kg	<1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1
	N-Nitrosodiphenyl & Diphenylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	mg/kg	0.1	**50**	**0.5**	**0.5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethylbenzene	mg/kg	0.1	**70**	**55**	**55**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Toluene	mg/kg	0.1	**85**	**160/220/310**	**160/220/310**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Xylene (m & p)	mg/kg	0.2	**105**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Xylene (o)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Xylene Total	mg/kg	0.3		**40/60/95**	**40/60/95**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10 less BTEX (F1)	mg/kg	20		**45/70/110**	**45/70/110**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1,1-trichloroethane	mg/kg	0.05	**5***				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1,2,2-tetrachloroethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1,2-trichloroethane	mg/kg	0.05	**5***				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloroethane	mg/kg	0.05	**5***				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloroethene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloropropene	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,3-trichloropropane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dibromo-3-chloropropane	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dichloroethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dichloropropane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,3-dichloropropane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,2-dichloropropane	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzyl chloride	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bromodichloromethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bromoform	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Carbon tetrachloride	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chlorodibromomethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chloroethane	mg/kg	0.05					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chloroform	mg/kg	0.05	**5**				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chloromethane	mg/kg	0.05					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	cis-1,2-dichloroethene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	cis-1,3-dichloropropene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibromomethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dichloromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorocyclopentadiene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	0.05	**0.01***				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Tetrachloroethene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,2-dichloroethene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,3-dichloropropene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Vinyl chloride	mg/kg	0.05					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Explosives	1,3,5-Trinitrobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	4/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012	11/04/2012	5/04/2012	5/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	11/04/2012
								Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
								Geology	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill
								Field ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	1,2-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	1,4-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Bromobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Chlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Hexachlorobenzene	mg/kg	0.05		10	10	15	-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<3	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Bromomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	Dichlorodifluoromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	Iodomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Trichlorofluoromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	2-chlorophenol	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	Pentachlorophenol	mg/kg	0.05	7.6*	120	100	130	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	<2	-	<3	-
	tetrachlorophenols	mg/kg	1	0.5*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		1300	900	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		400	320	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		240	250	300	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/kg						-	42.9	-	-	1.1	47.2	-	-	-	0.4	-	5	-	-	0.7	-	-	7.7	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	6-8*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	6-8*				-	8.1	-	-	7.6	8.3	-	-	-	7.3	-	7.9	-	-	6.4	-	-	5.8	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						-	110	-	-	<50	280	-	-	-	160	200	140	-	-	360	1,170	-	1,040	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	0.05	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Styrene	mg/kg	0.05	5*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	11/04/2012	11/04/2012	11/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	3/04/2012	4/04/2012	4/04/2012	4/04/2012	10/04/2012	10/04/2012	3/04/2012	3/04/2012
								Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
								Geology	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural
								Field ID	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	1,4-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Bromobenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	-	-	-	<0.15	-	<1	-	<10	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Bromomethane	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorodifluoromethane	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Iodomethane	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Trichlorofluoromethane	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-	-
	2-chlorophenol	mg/kg	0.2					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-	-
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	-	-	<2	-	<1	-	<10	<2	-	<2	-	-	-	<2	-	-	-	-	-
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	-	<1	-	-	-	-	<1	-	<1	-	-	-	<1	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	<1	-	-	-	-	<1	-	<1	-	-	-	<1	-	-	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/kg						8.6	-	-	-	-	0.2	2.4	-	-	-	-	-	77.7	-	-	-	17.8	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	**6-8***				6.7	-	-	-	-	8	**8.7**	-	-	-	-	-	7	-	-	-	7.7	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						110	-	-	<50	-	<50	<50	-	<50	-	<50	-	170	-	60	-	<50	-	-	-
	Sulphur as S	mg/kg						-	-	-	0.02	-	-	-	-	0.01	-	1.16	-	-	-	<0.01	-	-	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	**5***				-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	3/04/2012	4/04/2012	5/04/2012	5/04/2012	5/04/2012	11/04/2012	11/04/2012	10/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	5/04/2012	5/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012
								Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
								Geology	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill
								Field ID	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,4-dichlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorodifluoromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Iodomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichlorofluoromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	2-chlorophenol	mg/kg	0.2					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	-	<2	-	-	-	-	-	<2	-	-	-	<2	<2	-	-	<2	-	-
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	<1	-	-
	Cyanide Total	mg/kg	0.5					-	-	<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	<1	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/kg						1	-	-	-	2.2	-	3.7	-	-	19.9	-	-	-	-	-	8.3	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	**6-8***				**9.9**	-	-	-	7.9	-	6	-	-	**9.4**	-	-	-	-	-	7.9	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						<50	-	60	-	<50	-	<50	-	<50	70	-	-	-	-	-	<50	60	-	-
	Sulphur as S	mg/kg						-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	<0.01	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	**5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date																				
	4/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	3/04/2012	3/04/2012	5/04/2012	11/04/2012	11/04/2012
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Natural	Natural
Field ID	B40-1.2	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	1,2-dichlorobenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	1,4-dichlorobenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	2-chlorotoluene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Bromobenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Chlorobenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	<0.05	<1	-	-	-	-	-	-	<1	-	<1	-	-	<1	<0.05	<1	<1	<1
	Pentachlorobenzene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Bromomethane	mg/kg	0.05					-	<5	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
	Dichlorodifluoromethane	mg/kg	0.05					-	<5	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
	Iodomethane	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Trichlorofluoromethane	mg/kg	0.05					-	<5	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	2,4,6-trichlorophenol	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	2,4-dichlorophenol	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	2,6-dichlorophenol	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	2-chlorophenol	mg/kg	0.2					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	<1	-	-	-	-	-	-	<1	-	<1	-	-	-	<1	<1	<1	<1
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/kg						-	0.9	-	-	-	0.7	-	-	-	-	0.1	-	<0.1	-	-	2.2	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	0.8	-	3.3	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	0.9	-	3.3	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	**6-8***				-	**9.1**	-	-	-	7.1	-	-	-	-	6.2	-	6.8	-	-	**8.5**	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						-	<50	-	-	-	<50	-	-	-	-	170	-	140	-	-	90	1,800	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	1,3,5-trimethylbenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	Isopropylbenzene	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	n-butylbenzene	mg/kg						-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	n-propylbenzene	mg/kg						-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	p-isopropyltoluene	mg/kg						-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	sec-butylbenzene	mg/kg						-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	Styrene	mg/kg	0.05	**5***				-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5
	tert-butylbenzene	mg/kg						-	<0.5	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	11/04/2012	11/04/2012	4/04/2012	4/04/2012	11/04/2012	19/02/2014	26/02/2014	13/03/2014	13/03/2014	13/03/2014	13/03/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	LRM TIT Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural
Field ID	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0	NW PIT VAL 1	Pit-Base-East	Tank Pit- East Wall	Tank Pit- North Wall	Tank Pit- South Wall	Tank Pit- West Wall	MW10 1.0	MW10 10.5	MW10 2.0	MW11 7.0	MW12 10.0	MW13 6.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil														
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	-	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
	1,2-dichlorobenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	2-chlorotoluene	mg/kg	0.5					-	-	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
	Bromobenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
	Chlorobenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	-	-	-	<1	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromomethane	mg/kg	0.05					-	-	-	<5	-	<0.05	-	<1	<1	<1	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05					-	-	-	<5	-	<0.05	-	<1	<1	<1	<1	-	-	-	-	-	-	-
	Iodomethane	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05					-	-	-	<5	-	<0.05	-	<1	<1	<1	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	2-chlorophenol	mg/kg	0.2					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	-	-	<1	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	25	0.5	2.8	1	6.5	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					-	-	-	-	-	8.9	-	-	-	-	-	9.3	9.2	15	10	7.9	9.3	
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	**5***				-	-	-	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Fill
								Field ID	TP01-0.3	TP01-0.6	TP01-1.5	TP02-0.5	TP02-1.0	TP03-0.5	TP04-0.4	TP04-0.9	TP05-0.2	TP05-0.6	TP06-0.5	TP06-0.8	TP06-1.4	TP06-2.5	TP07-0.5	TP07-0.8	TP07-1.3	TP07-1.5	TP08-0.2
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					<0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromobenzene	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobenzene	mg/kg	0.05		10	10	15	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Iodomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dichlorophenol	mg/kg	0.05					<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dichlorophenol	mg/kg	0.05					<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chlorophenol	mg/kg	0.2					<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorophenol	mg/kg	0.05	7.6*	120	100	130	<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
	tetrachlorophenols	mg/kg	1	0.5*				<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		1300	900	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		400	320	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					<20	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		240	250	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					<5	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/kg	50					120	-	-	-	-	-	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					13	6.8	11	4	9.6	7.8	11	8.6	14	8.9	6.4	14	18	20	7.2	11	9.1	20	11
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	6-8*				7.4	-	-	-	-	-	8.6	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	6-8*				-	-	-	-	-	-	-	-	7.5	-	-	-	-	-	8.2	5.3	6.5	5.8	-	
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	3,200	-	-	-	-	-	2,800	7,700	1,800	2,500	-	
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	5*				<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Natural	Natural	Natural	Natural	Fill	Fill
								Field ID	TP08-0.5	TP08-1.5	TP09-0.2	TP09-0.5	TP09-1.0	TP09-1.8	TP10-0.5	TP10-0.7	TP10-1.7	TP11-0.5	TP11-0.8	TP11-1.6	TP12-0.2	TP12-0.5	TP12-1.0	TP12-BH-1.2	TP12-BH-1.5	TP12-1.8	TP13-0.3	TP14-0.2
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	<0.2	-
	1,2-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	Bromobenzene	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	Chlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	<0.05	-
	Pentachlorobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Bromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	-	<0.05	-
	Iodomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	<1	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	<1	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	<1	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	<1	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	-	-	-	<0.5	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	-	-	-	<0.5	-
	2-chlorophenol	mg/kg	0.2					-	-	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	-	-	-	<0.5	-
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	-	<1	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	-	<1	-
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	<20	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	<20	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	170	-	-	-	-	-	-	-	-	-	-	-	<100	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	25	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					14	20	9.8	8.3	17	20	13	14	23	11	13	11	13	13	12	-	-	20	7.9	10
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	**9.2**	-	-	-	-	-	-	**9**	-	-	**8.8**	-	-	-	-	-	7.8	-
	pH (Lab)	pH Units	0.1	**6-8***				-	-	**8.6**	-	-	-	-	-	-	-	-	-	8	6.6	-	-	-	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	810	-	-	-	-	-	-	700	-	-	510	-	-	-	-	-	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	1,100	-	-	-	-	-	-	-	-	-	5,000	1,600	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	Isopropylbenzene	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	**5***				-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	-	<0.05	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	16/05/2014	15/05/2014	26/06/2014	15/05/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Fill	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural
								Field ID	TP14-0.6	TP14-0.6	TP14-0.9	TP14-BH-1.0	TP14-1.4	TP14-BH-1.5	TP15-0.2	TP15-0.5	TP15-0.6	TP15-1.5	TP16-0.4	TP16-0.5	TP16-0.7	TP16-BH-1.0	TP16-BH-1.5	TP16-1.5	TP17-0.2	TP17-0.4	TP17-1.3
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	1,2-dichlorobenzene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	1,3-dichlorobenzene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-
	Bromobenzene	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-
	Chlorobenzene	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Bromomethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-
	Iodomethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05					<0.05	-	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2-chlorophenol	mg/kg	0.2					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	110	-	-	-	<100	-	-	-	-	-	<100	-	-
	Moisture	%	0.1					-	-	-	11	-	11	-	-	-	-	-	-	-	20	12	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					12	12	14	-	16 - 22	-	15	9.4	13	9	14	12	12	-	-	14	13	10	28	
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	-	-	-	-	8	-	-	-	6.9	-	-	-	-	-	6.1	-	-
	pH (Lab)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	51	-	-	-	47	-	-	-	-	-	120	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	**5***				-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	<0.05	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Natural
								Field ID	TP18-0.5	TP18-0.6	TP18-1.5	TP19-0.2	TP20-0.4	TP20-0.6	TP20-0.8	TP20-1.8	TP21-0.2	TP21-0.5	TP22-0.2	TP22-0.4	TP23-0.2	TP23-0.7	TP23-1.5	TP24-0.4	TP24-1.0	TP24-2.0	TP25-0.4	TP26-0.4
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					<0.5	-	-	<0.2	<0.5	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-
	1,2-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,3,5-Trichlorobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	1,4-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Bromobenzene	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Chlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Hexachlorobenzene	mg/kg	0.05		10	10	15	<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Pentachlorobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Bromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Dichlorodifluoromethane	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Iodomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
	Trichlorofluoromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					<1	-	-	<1	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					<1	-	-	<1	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	2,4-dichlorophenol	mg/kg	0.05					<0.5	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
	2,6-dichlorophenol	mg/kg	0.05					<0.5	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
	2-chlorophenol	mg/kg	0.2					<0.5	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
	Pentachlorophenol	mg/kg	0.05	7.6*	120	100	130	<1	-	-	<1	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	tetrachlorophenols	mg/kg	1	0.5*				-	-	-	<1	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		1300	900	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		400	320	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	<20	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		240	250	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	<5	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	Fluoride	mg/kg	50					<100	-	-	<100	-	-	-	-	-	-	-	-	-	<100	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					13	14	14	11	14	13	11	27	12	10	10	7.1	7.1	8.8 - 9	11	11	11	17	13	12
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	6-8*				7.6	-	-	7.9	8.3	-	-	-	-	-	-	-	4.8	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	6-8*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phosphate total (P)	mg/kg	10					<10	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	5*				<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date																				
	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014	
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	
Geology	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill	
Field ID	TP26-0.5	TP26-1.1	TP27-0.4	TP28-0.4	TP29-0.5	TP30-0.2	TP31-0.2	TP31-BH-0.5	TP31-BH-1.0	TP32-0.5	TP33-0.2	TP34-0.4	TP34-1.0	TP34-1.5	TP35-0.4	TP35-1.0	TP35-1.8	TP36-0.1	TP36-0.4	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil															
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	-	-	-	<0.2	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	1,2-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Bromobenzene	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Chlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Iodomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	-	-	-	<1	<1	-	-	-	<1	-	-	-	<1	-	-	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	-	-	-	<1	<1	-	-	-	<1	-	-	-	<1	-	-	-	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2-chlorophenol	mg/kg	0.2					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	-	-	-	-	<1	<1	-	-	-	<1	-	-	-	<1	-	-	-	-
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	11	8.3	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					17	17	11	14	23	7.7	9	-	-	9.6	9.2	12	13	24	10	6.7	20	5.2	8.6
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	-	-	-	**8.6**	**8.7**	-	-	-	**9.5**	-	-	-	7.9	-	-	-	-
	pH (Lab)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	200	250	-	-	-	970	-	-	-	11	-	-	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	**5***				-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill
								Field ID	TP36-0.9	TP36-1.6	TP37-0.5	TP37-0.9	TP37-1.5	TP38-0.5	TP39-0.2	TP40-0.1	TP40-0.5	TP40-0.8	TP40-1.5	TP41-0.5	TP42-0.3	TP42-0.3B	TP43-0.2	TP43-0.5	TP43-1.0	TP43-1.5	TP44-0.2	TP45-0.1
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.2	-	-	-	-	-
	1,2-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	1,4-dichlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	2-chlorotoluene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	Bromobenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	Chlorobenzene	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Hexachlorobenzene	mg/kg	0.05		10	10	15	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Bromomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Dichlorodifluoromethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	Iodomethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
	Trichlorofluoromethane	mg/kg	0.05					<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-
	2-chlorophenol	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-
	Pentachlorophenol	mg/kg	0.05	7.6*	120	100	130	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-
	tetrachlorophenols	mg/kg	1	0.5*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		1300	900	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		400	320	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		800	600	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		240	250	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	120	<100	110	-	-	-	-	-
	Moisture	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture Content (dried @ 103°C)	%	0.1					11	8.1	8.5 - 9	10	7.7	10	6.8	8.8	11	9.6	21	11	24	11	11	9.6	16	17	11	18
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	6-8*				-	-	-	-	-	-	-	-	-	-	-	-	7.6	7.6	8.6	-	-	-	-	-
	pH (Lab)	pH Units	0.1	6-8*				-	-	8.5	-	-	-	-	8.6	8.1	7.5	6.7	-	-	-	-	-	6.5	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	17	<10	-	-	-	-	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	370	-	-	-	-	4,200	3,200	600	3,400	-	-	-	-	-	5,300	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	5*				-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	18/08/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Fill	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
								Field ID	MW24-0.3	MW24-1.0	MW24-2.0	SW1-1.0	SW2-1.0	SW3-0.6	SW4-0.4	SW5-0.4	SW6-0.7	SW7-0.5	SW8-0.6	SW9-0.4	SW10-0.3	SW11-0.6	SW12-0.6	SW13-0.3	SW14-0.4	SW15-0.5	G1-0.2
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dichlorobenzene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,3,5-Trichlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,4-dichlorobenzene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-chlorotoluene	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorotoluene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bromobenzene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chlorobenzene	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorobenzene	mg/kg	0.05		**10**	**10**	**15**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	mg/kg	0.05					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bromomethane	mg/kg	0.05					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichlorodifluoromethane	mg/kg	0.05					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Iodomethane	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichlorofluoromethane	mg/kg	0.05					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Halogenated Phenols	2,3,4,5-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,4,6-tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,3,5,6-Tetrachlorophenol	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,6-trichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dichlorophenol	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chlorophenol	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorophenol	mg/kg	0.05	**7.6***	**120**	**100**	**130**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	tetrachlorophenols	mg/kg	1	**0.5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	2,4,5-Trichlorophenoxy Acetic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hedonal	mg/kg	0.5		**1300**	**900**	**1600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Atrazine	mg/kg	0.2		**400**	**320**	**470**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dinoseb	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-chlorophenoxyacetic acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Methyl-4-Chlorophenoxy Butanoic Acid	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mecoprop	mg/kg	0.5		**800**	**600**	**900**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Cyanide (Free)	mg/kg	5		**240**	**250**	**300**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cyanide Total	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Moisture	%	0.1					12	11	15	8.1	12	12	11	14	12	10	10	9.7	12	16	11	9.9	11	13	13
	Moisture Content (dried @ 103°C)	%	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (aqueous extract)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1	**6-8***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phosphate total (P)	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphur as S	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/kg	50					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAH	1,2,4-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Isopropylbenzene	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	mg/kg	0.05	**5***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	tert-butylbenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	4/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012	11/04/2012	5/04/2012	5/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	11/04/2012
								Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
								Geology	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill
								Field ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3
Metals	Antimony	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	<5	<5	15	11	<5	35	<5	8	<5	<5	9	<5	<5	8	<5	10	<5	-	5
	Barium	mg/kg		500*				140	10	10	590	200	200	-	-	20	20	20	<10	10	20	<10	<10	<10	-	10
	Beryllium	mg/kg	2	4*	90	60	90	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
	Boron	mg/kg	10		20000	4500	40000	-	-	-	-	-	-	-	-	-	-	<50	-	-	-	-	<50	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	-	-
	Chromium (III+VI)	mg/kg	1	410				10	12	20	24	6	20	20	13	16	3	20	22	<2	30	<2	28	<2	-	12
	Cobalt	mg/kg	5	50*	300	100	600	16	3	2	5	<2	3	-	-	3	<2	4	<2	<2	7	<2	2	<2	-	<2
	Copper	mg/kg	1	210	17000	6000	30000	35	7	<5	41	36	<5	25	63	13	6	<5	<5	<5	24	<5	<5	<5	-	<5
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	77	67	21	106	59	24	-	-	111	32	24	7	7	20	<5	8	6	-	14
	Mercury	mg/kg	0.1	6.6*	80	40	120	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
	Molybdenum	mg/kg	1	10*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	14	16	6	17	<2	8.3	109	31	9	<2	7	4	<2	6	<2	5	<2	-	2
	Phosphorus	mg/kg	5					-	166	-	-	506	104	-	-	-	412	382	38	-	-	95	120	-	147	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	20*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	50*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	130*				19	26	62	17	8	84	-	-	38	5	62	40	6	40	15	87	<5	-	32
	Zinc	mg/kg	1	660	30000	7400	60000	28	19	7	661	242	11	37	120	24	22	29	<5	7	57	<5	92	6	-	6
Lead	Lead	mg/kg	1	1,100	600	300	1200	20	12	19	978	804	43	<5	178	41	20	11	5	10	28	<5	24	7	-	11
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	a-BHC	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Aldrin	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	b-BHC	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	-	-
	d-BHC	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	DDD	mg/kg	0.05	0.7*				-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	DDT	mg/kg	0.05	180				-	-	-	-	-	-	<0.2	<4	-	-	<0.2	-	-	-	-	<0.2	-	<3	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	-	-	-	-	<0.3	<6	-	-	<0.3	-	-	-	-	<0.3	-	<6	-
	Dieldrin	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Endosulfan I	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Endosulfan II	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Endosulfan sulphate	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Endrin	mg/kg	0.05		20	10	20	-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Endrin aldehyde	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	-	-
	Endrin ketone	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Heptachlor epoxide	mg/kg	0.05					-	-	-	-	-	-	<0.05	<1	-	-	<0.05	-	-	-	-	<0.05	-	<1.5	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	-	-	-	-	<0.2	<4	-	-	<0.2	-	-	-	-	<0.2	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	2-methylphenol	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	2-nitrophenol	mg/kg	1					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	3-&4-methylphenol	mg/kg	0.4					-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	<1	-	<3	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5
	Acenaphthylene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	<0.5	**1.2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5
	Acetophenone	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	**1.2**	<0.5	**0.9**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5
	Benz(a)anthracene	mg/kg	0.1	2.5*				<0.5	<0.5	<0.5	<0.5	<0.5	**2.2**	<0.5	**4.1**	<0.5	**2.6**	<0.5	<0.5	<0.5	**1.4**	<0.5	<0.5	<0.5	<1.5	<0.5
	Benzo(a) pyrene	mg/kg	0.05	0.7				**1.4**	<0.5	<0.5	<0.5	<0.5	**1.8**	<0.5	**5.3**	<0.5	**2.4**	<0.5	<0.5	<0.5	**2**	<0.5	<0.5	<0.5	<1.5	<0.5
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	2.248**	1.21**	1.21**	1.21**	1.21**	**3.014****	1.21**	**7.818****	1.21**	**3.687****	1.21**	1.21**	1.21**	**3.263****	1.21**	1.21**	1.21**	**3.68****	1.21**
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						**1.2**	<0.5	<0.5	<0.5	<0.5	**2.1**	<0.5	**5.8**	<0.5	**1.8**	<0.5	<0.5	<0.5	**1.8**	<0.5	<0.5	<0.5	<3	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.1					**2.3**	<0.5	<0.5	<0.5	<0.5	**1.3**	<0.5	**4.4**	<0.5	**1.3**	<0.5	<0.5	<0.5	**1.8**	<0.5	<0.5	<0.5	<1.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**	<0.5	**2.3**	<0.5	**1.9**	<0.5	<0.5	<0.5	**1.7**	<0.5	<0.5	<0.5	-	<0.5
	Chrysene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	**2.1**	<0.5	**3.4**	<0.5	**2.4**	<0.5	<0.5	<0.5	**1.5**	<0.5	<0.5	<0.5	<1.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.9**	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	<0.5	<0.5	<1.5	<0.5
	Fluoranthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	**5.1**	<0.5	**5.5**	<0.5	**4**	<0.5	<0.5	<0.5	**1.4**	<0.5	<0.5	<0.5	<1.5	**0.8**
	Fluorene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					**1**	<0.5	<0.5	<0.5	<0.5	**1.7**	<0.5	**3.2**	<0.5	**1.2**	<0.5	<0.5	<0.5	**1.4**	<0.5	<0.5	<0.5	<1.5	<0.5
	Naphthalene	mg/kg	0.1	170		3	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	**7**	<0.5	<0.5	<0.5	<0.5	**29.1**	<0.5	**44.9**	<0.5	**22.7**	<0.5	<0.5	<0.5	**15.3**	<0.5	<0.5	<0.5	<1.5	**1.7**
	Phenanthrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	**5**	<0.5	**1.2**	<0.5	**1.2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<1.5	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					**1.1**	<0.5	<0.5	<0.5	<0.5	**5.3**	<0.5	**6.7**	<0.5	**3.9**	<0.5	<0.5	<0.5	**1.7**	<0.5	<0.5	<0.5	<1.5	**0.9**

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	11/04/2012	11/04/2012	11/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	3/04/2012	4/04/2012	4/04/2012	4/04/2012	10/04/2012	10/04/2012	3/04/2012	3/04/2012
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural
Field ID	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
Metals	Antimony	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	<5	<5	6	<5	<5	<5	<5	-	<5	<5	<5	<5	11	<5	<5	<5	<5	<5
	Barium	mg/kg		500*				10	<10	<10	30	<10	<10	630	-	<10	4,480	140	<10	20	30	20	<10	<10	60	<10
	Beryllium	mg/kg	2	4*	90	60	90	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Boron	mg/kg	10		20000	4500	40000	-	-	-	<50	-	-	-	-	<50	-	<50	-	-	-	<50	-	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	<1	<1	<1	<1	<1	<1	<1	-	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	<0.5	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				2	4	18	14	<2	<2	<2	-	7	11	4	<2	38	14	21	2	<2	15	3
	Cobalt	mg/kg	5	50*	300	100	600	<2	<2	<2	39	<2	<2	<2	-	<2	5	<2	<2	4	24	18	6	<2	27	<2
	Copper	mg/kg	1	210	17000	6000	30000	<5	<5	<5	75	<5	<5	12	-	<5	149	<5	<5	<5	24	19	<5	<5	29	<5
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	16	24	16	467	<5	<5	9	-	<5	98	<5	<5	33	576	326	71	7	536	20
	Mercury	mg/kg	0.1	6.6*	80	40	120	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Molybdenum	mg/kg	1	10*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	<2	2	4	101	<2	<2	<2	-	3	11	<2	<2	11	101	77	13	<2	103	<2
	Phosphorus	mg/kg	5					336	-	-	543	-	17	40	-	26	-	22	-	108	-	459	-	93	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	20*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	50*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	130*				6	9	40	7	<5	<5	<5	-	7	9	6	<5	70	10	26	<5	<5	10	16
	Zinc	mg/kg	1	660	30000	7400	60000	15	16	18	51	<5	<5	34	-	<5	1,030	<5	<5	11	44	42	6	<5	47	<5
Lead	Lead	mg/kg	1	1,100	600	300	1200	10	32	25	<5	<5	<5	9	-	<5	61	<5	<5	12	<5	9	<5	<5	<5	<5
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	a-BHC	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Aldrin	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	b-BHC	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	<0.15	-	-	-	-	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	<0.15	-	-	-	-	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	d-BHC	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	DDD	mg/kg	0.05	0.7*				-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	DDT	mg/kg	0.05	180				-	-	-	<0.6	-	<1	-	<10	<0.2	-	<0.2	-	-	-	<0.2	-	-	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	-	<0.9	-	<2	-	<20	<0.3	-	<0.3	-	-	-	<0.3	-	-	-	-
	Dieldrin	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Endosulfan I	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Endosulfan II	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Endrin	mg/kg	0.05		20	10	20	-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Endrin aldehyde	mg/kg	0.05					-	-	-	<0.15	-	-	-	-	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Endrin ketone	mg/kg	0.05					-	-	-	<0.15	-	-	-	-	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Heptachlor epoxide	mg/kg	0.05					-	-	-	<0.15	-	<0.5	-	<5	<0.05	-	<0.05	-	-	-	<0.05	-	-	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	-	<0.6	-	-	-	-	<0.2	-	<0.2	-	-	-	<0.2	-	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-
	2-nitrophenol	mg/kg	1					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	-	<1	-	<1	-	<10	<1	-	<1	-	-	-	<1	-	-	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**1**	<0.5	**0.8**	<0.5	<0.5	<0.5
	Acetophenone	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**2.1**	**0.8**	**3.1**	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.1	2.5*				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**3.9**	**0.7**	**3**	<0.5	<0.5	<0.5
	Benzo(a) pyrene	mg/kg	0.05	0.7				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**3.6**	**0.6**	**3.1**	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	1.21**	1.21**	1.21**	1.21**	1.21**	1.26**	1.21**	**12.6****	1.21**	1.21**	1.21**	1.21**	1.21**	**5.249****	1.366**	**4.506****	1.21**	1.21**	1.21**
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<10	<0.5	<0.5	<0.5	<0.5	<0.5	**4**	**0.8**	**2.2**	<0.5	<0.5	<0.5
	Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**2.4**	**0.5**	**1.5**	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	**1.3**	<0.5	**2.1**	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**3.5**	**1.1**	**3.1**	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**9.6**	**2.3**	**7.9**	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.7**	<0.5	**1.3**	<0.5	<0.5	<0.5
	Naphthalene	mg/kg	0.1	170		3	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	**0.6**	**50.9**	**11**	**43.8**	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	**6.9**	**1.6**	**7.8**	<0.5	<0.5	<0.5
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	-	<0.5	-	<0.5	-	<5	<0.5	-	<0.5	-	-	-	<0.5	-	-	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	**0.6**	**10.9**	**2.6**	**7.9**	<0.5	<0.5	<0.5

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date																				
Purpose	3/04/2012 Alliance Assessment	4/04/2012 Alliance Assessment	5/04/2012 Alliance Assessment	5/04/2012 Alliance Assessment	5/04/2012 Alliance Assessment	11/04/2012 Alliance Assessment	11/04/2012 Alliance Assessment	10/04/2012 Alliance Assessment	11/04/2012 Alliance Assessment	11/04/2012 Alliance Assessment	11/04/2012 Alliance Assessment	11/04/2012 Alliance Assessment	5/04/2012 Alliance Assessment	5/04/2012 Alliance Assessment	4/04/2012 Alliance Assessment	4/04/2012 Alliance Assessment	4/04/2012 Alliance Assessment	4/04/2012 Alliance Assessment	4/04/2012 Alliance Assessment
Geology	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill
Field ID	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil															
Metals	Antimony	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	**100**	**300**	**100**	**500**	<5	<5	<5	<5	<5	<5	<5	<5	70	100	<10	20	-	-	<5	<5	<5	5	9
	Barium	mg/kg		**500***				10	<10	280	10	20	40	10	90	70	100	<10	20	-	-	20	20	30	20	-
	Beryllium	mg/kg	2	**4***	**90**	**60**	**90**	<1	<1	<1	<1	<1	<1	<1	<1	1	1	<1	<1	-	-	<1	<1	<1	<1	-
	Boron	mg/kg	10		**20000**	**4500**	**40000**	-	-	<50	-	-	-	-	-	<50	-	-	-	-	-	-	-	<50	-	-
	Cadmium	mg/kg	0.4	**10***	**90**	**20**	**150**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1
	Chromium (hexavalent)	mg/kg	1	**0.4***	**300**	**100**	**500**	-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	<0.5	-	-
	Chromium (III+VI)	mg/kg	1	**410**				3	3	12	3	11	17	<2	42	40	51	<2	12	-	-	16	4	14	18	31
	Cobalt	mg/kg	5	**50***	**300**	**100**	**600**	<2	10	3	<2	<2	6	<2	41	37	40	<2	13	-	-	26	<2	30	4	-
	Copper	mg/kg	1	**210**	**17000**	**6000**	**30000**	<5	22	7	6	<5	25	<5	76	75	78	<5	17	-	-	31	<5	32	<5	<5
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		**19000**	**3800**	**14000**	26	78	51	16	31	92	11	964	802	898	26	235	-	-	433	62	574	31	-
	Mercury	mg/kg	0.1	**6.6***	**80**	**40**	**120**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
	Molybdenum	mg/kg	1	**10***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	**250**	**1200**	**400**	**1200**	4	13	12	<2	3	19	<2	158	153	162	<2	38	-	-	106	2	114	9	10
	Phosphorus	mg/kg	5					502	-	129	-	45	-	281	-	974	824	-	-	-	-	-	632	856	-	-
	Selenium	mg/kg	2	**1***	**700**	**200**	**1400**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	**20***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	**50***				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	**130***				<5	<5	26	7	23	31	<5	31	31	41	<5	12	-	-	12	15	10	49	-
	Zinc	mg/kg	1	**660**	**30000**	**7400**	**60000**	9	6	23	29	22	20	<5	57	54	53	8	18	-	-	53	26	56	11	8
Lead	Lead	mg/kg	1	**1,100**	**600**	**300**	**1200**	12	<5	31	12	27	15	18	<5	<5	<5	12	<5	<5	6	<5	20	<5	20	11
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	a-BHC	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Aldrin	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Aldrin + Dieldrin	mg/kg			**10**	**6**	**10**	-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	b-BHC	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	chlordane	mg/kg	0.1		**70**	**50**	**90**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Chlordane (trans)	mg/kg	0.1					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	d-BHC	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	DDD	mg/kg	0.05	**0.7***				-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	DDT	mg/kg	0.05	**180**				-	-	<0.4	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	<0.2	-	<0.6
	DDT+DDE+DDD	mg/kg			**400**	**240**	**600**	-	-	<0.6	-	-	-	-	-	<0.3	-	-	-	-	-	-	-	<0.3	-	<0.9
	Dieldrin	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Endosulfan I	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Endosulfan II	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Endosulfan sulphate	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Endrin	mg/kg	0.05		**20**	**10**	**20**	-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Endrin aldehyde	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Endrin ketone	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	g-BHC (Lindane)	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Heptachlor	mg/kg	0.05		**10**	**6**	**10**	-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Heptachlor epoxide	mg/kg	0.05					-	-	<0.1	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	<0.05	-	<0.15
	Methoxychlor	mg/kg	0.05		**400**	**300**	**500**	-	-	<0.4	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	<0.2	-	<0.6
	Toxaphene	mg/kg	1		**30**	**20**	**30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		**250**	**160**	**340**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	2-nitrophenol	mg/kg	1					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	<1	-	-	-	-	-	<1	-	-	-	<1	<1	-	-	<1	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.1					<0.5	**1.3**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acetophenone	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					<0.5	**3.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.1	**2.5***				<0.5	**12.4**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**
	Benzo(a) pyrene	mg/kg	0.05	**0.7**				<0.5	**9.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1**
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			**3**	**3**	**4**	1.21**	**14.1****	1.213**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.847**
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						<0.5	**11.4**	**0.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.4**
	Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	**5.3**	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.7**
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	**3.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**
	Chrysene	mg/kg	0.1					<0.5	**8.7**	**0.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1**
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	**1.1**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.1					<0.5	**22.9**	**0.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.7**	<0.5	**1.1**
	Fluorene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	**4**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Naphthalene	mg/kg	0.1	**170**		**3**	**3**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	PAHs (Sum of total)	mg/kg	0.5		**300**	**300**	**400**	<0.5	**118**	**4.8**	<0.5	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.5**	<0.5	**8.6**
	Phenanthrene	mg/kg	0.1					<0.5	**8.9**	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenol	mg/kg	0.5	**3.8***	**40000**	**3000**	**45000**	-	-	<0.5	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.5	-	-	<0.5	-	-
	Picloram	mg/kg	0.01		**5700**	**4500**	**6600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					<0.5	**25.3**	**1.5**	<0.5	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**	<0.5	**2**

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date																				
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Natural	Natural	
Field ID	B40-1.2	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil														
Metals	Antimony	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	<5	<5	<5	<5	<5	<5	<5	<5	10	7	<5	18	5	12	<5	6	-	-	-
	Barium	mg/kg		500*				-	40	<10	20	40	<10	30	20	40	10	20	30	40	30	20	<10	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	<1	<1	<1	4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
	Chromium (III+VI)	mg/kg	1	410				3	14	3	3	8	<2	15	26	30	19	18	37	10	32	15	23	-	-	-
	Cobalt	mg/kg	5	50*	300	100	600	-	24	<2	12	3	<2	<2	<2	3	<2	10	6	5	6	<2	5	-	-	-
	Copper	mg/kg	1	210	17000	6000	30000	<5	27	<5	<5	139	17	135	<5	27	6	21	6	19	16	<5	11	-	-	-
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	-	545	24	<5	80	<5	27	11	42	10	196	60	55	38	41	39	-	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	-	-	-
	Molybdenum	mg/kg	1	10*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	3	102	<2	<2	8	<2	5	5	12	4	33	13	8	13	4	7	-	-	-
	Phosphorus	mg/kg	5					-	994	-	-	-	27	-	-	-	65	-	92	-	-	60	92	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	20*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	50*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	130*				-	11	5	<5	10	<5	18	41	45	49	11	83	19	90	32	45	-	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	11	47	12	422	153	18	115	6	300	31	331	232	205	166	31	56	-	-	-
Lead	Lead	mg/kg	1	1,100	600	300	1200	<5	<5	13	12	42	9	64	8	41	8	39	20	149	43	47	16	-	-	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Pentachloronitrobenzene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	a-BHC	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Aldrin	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Aldrin + Dieldrin	mg/kg			10	6	10	<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	b-BHC	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						<0.05	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.05	-	-	-
	Chlordane (trans)	mg/kg	0.1					<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
	d-BHC	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	DDD	mg/kg	0.05	0.7*				<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	DDT	mg/kg	0.05	180				<0.2	<1	-	-	-	-	-	-	-	<1	-	<1	-	-	<1	<0.2	<1	<1	<1
	DDT+DDE+DDD	mg/kg			400	240	600	<0.3	<2	-	-	-	-	-	-	-	<2	-	<2	-	-	<2	<0.3	<2	<2	<2
	Dieldrin	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Endosulfan I	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Endosulfan II	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Endosulfan sulphate	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Endrin	mg/kg	0.05		20	10	20	<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Endrin aldehyde	mg/kg	0.05					<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
	Endrin ketone	mg/kg	0.05					<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Heptachlor	mg/kg	0.05		10	6	10	<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Heptachlor epoxide	mg/kg	0.05					<0.05	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	<0.05	<0.5	<0.5	<0.5
	Methoxychlor	mg/kg	0.05		400	300	500	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Chlorpyrifos-methyl	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Diazinon	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Dichlorvos	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Dimethoate	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Ethion	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Fenthion	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Malathion	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Prothiofos	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	2-methylnaphthalene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	2-methylphenol	mg/kg	0.2					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	2-nitrophenol	mg/kg	1					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	3-&4-methylphenol	mg/kg	0.4					-	<1	-	-	-	-	-	-	-	<1	-	<1	-	-	-	<1	<1	<1	<1
	3-methylcholanthrene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acetophenone	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.1	2.5*				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a) pyrene	mg/kg	0.05	0.7				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	1.21**	1.26**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.21**	1.26**	1.21**	1.26**	1.21**	1.21**	1.26**	1.21**	1.26**	1.31**	1.31**
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<0.5	<1	<0.5	<1	<1	<1
	Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	-	-	-
	Chrysene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
	Naphthalene	mg/kg	0.1	170		3	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	11/04/2012	11/04/2012	4/04/2012	4/04/2012	11/04/2012	19/02/2014	26/02/2014	13/03/2014	13/03/2014	13/03/2014	13/03/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	LRM TIT Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural
Field ID	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0	NW PIT VAL 1	Pit-Base-East	Tank Pit- East Wall	Tank Pit- North Wall	Tank Pit- South Wall	Tank Pit- West Wall	MW10_1.0	MW10_10.5	MW10_2.0	MW11_7.0	MW12_10.0	MW13_6.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil														
Metals	Antimony	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	14	52	<5	5	<5	8.3	-	-	-	-	-	-	-	-
	Barium	mg/kg		500*				<10	<10	20	<10	<10	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	<1	<1	<1	<1	<1	<0.4	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				42	40	13	15	13	18	-	-	-	-	-	-	-	-
	Cobalt	mg/kg	5	50*	300	100	600	2	3	20	<2	<2	-	-	-	-	-	-	-	-	-
	Copper	mg/kg	1	210	17000	6000	30000	<5	<5	23	<5	<5	17	-	-	-	-	-	-	-	-
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	12	10	391	5	<5	-	-	-	-	-	-	-	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-
	Molybdenum	mg/kg	1	10*				-	-	-	-	-	<10	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	<2	4	81	<2	<2	15	-	-	-	-	-	-	-	-
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	-	-	-	<2	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	20*				-	-	-	-	-	<5	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	50*				-	-	-	-	-	<10	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	130*				80	156	11	31	14	-	-	-	-	-	-	-	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	<5	10	37	<5	<5	68	-	-	-	-	-	-	-	-
Lead	Lead	mg/kg	1	1.100	600	300	1200	6	14	<5	6	<5	8.5	10	5	7	4	7	-	-	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	a-BHC	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Aldrin	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	-	<0.5	-	<1	-	-	-	-	-	-	-	-
	b-BHC	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	DDD	mg/kg	0.05	0.7*				-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	DDT	mg/kg	0.05	180				-	-	-	<1	-	<0.5	-	-	-	-	-	-	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	-	<2	-	<1.5	-	-	-	-	-	-	-	-
	Dieldrin	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Endosulfan I	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Endosulfan II	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Endrin	mg/kg	0.05		20	10	20	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Endrin aldehyde	mg/kg	0.05					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	Endrin ketone	mg/kg	0.05					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Heptachlor epoxide	mg/kg	0.05					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	<5	-	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					-	-	-	<0.5	-	<0.2	-	-	-	-	-	-	-	-
	2-nitrophenol	mg/kg	1					-	-	-	<0.5	-	<1	-	-	-	-	-	-	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	-	<1	-	<0.4	-	-	-	-	-	-	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	<5	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	-	<0.5	-	<1	-	-	-	-	-	-	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	<5	-	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Acenaphthylene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Acetophenone	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Benz(a)anthracene	mg/kg	0.1	2.5*				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Benzo(a) pyrene	mg/kg	0.05	0.7				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	1.21**	1.21**	1.21**	1.26**	1.21**	<1.21	-	-	-	-	-	-	-	-
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						<0.5	<0.5	<0.5	<1	<0.5	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	<0.5	<0.5	-	<0.5	<0.5	-	-	-	-	-	-	-	-
	Chrysene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Fluoranthene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Fluorene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Naphthalene	mg/kg	0.1	170		3	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	-	-	-
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Phenanthrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Fill
								Field ID	TP01-0.3	TP01-0.6	TP01-1.5	TP02-0.5	TP02-1.0	TP03-0.5	TP04-0.4	TP04-0.9	TP05-0.2	TP05-0.6	TP06-0.5	TP06-0.8	TP06-1.4	TP06-2.5	TP07-0.5	TP07-0.8	TP07-1.3	TP07-1.5	TP08-0.2
Metals	Antimony	mg/kg	10					-	-	-	<10	<10	-	-	-	-	-	<10	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	13	-	-	<2	<2	-	8.2	-	-	-	<2	-	-	-	-	-	-	-	-
	Barium	mg/kg		500*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	-	-	-	<2	<2	-	-	-	-	-	<2	-	-	-	-	-	-	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	-	<10	<10	-	-	-	-	-	<10	-	-	-	-	-	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	<0.4	-	-	<0.4	<0.4	-	<0.4	-	-	-	<0.4	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				26	-	-	<5	<5	-	23	-	-	-	<5	-	-	-	-	-	-	-	-
	Cobalt	mg/kg	5	50*	300	100	600	-	-	-	<5	<5	-	-	-	-	-	<5	-	-	-	-	-	-	-	-
	Copper	mg/kg	1	210	17000	6000	30000	<5	-	-	<5	<5	-	6.3	-	-	-	<5	-	-	-	-	-	-	-	-
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	17,000	-	-	-	-	-	7,200	1,800	7,200	8,600	-
	Manganese	mg/kg	5		19000	3800	14000	-	-	-	7.5	5.1	-	-	-	-	-	15	-	-	-	-	-	-	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	<0.1	-	-	<0.1	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	-	-	-	-	-
	Molybdenum	mg/kg	1	10*				<10	-	-	<10	<10	-	<10	-	-	-	<10	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	7.7	-	-	<5	<5	-	12	-	-	-	<5	-	-	-	-	-	-	-	-
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	<2	-	-	<2	<2	-	<2	-	-	-	<2	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	20*				<5	-	-	<5	<5	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	50*				<10	-	-	<10	<10	-	<10	-	-	-	<10	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	130*				-	-	-	<10	<10	-	-	-	-	-	<10	-	-	-	-	-	-	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	<5	-	-	<5	<5	-	25	-	-	-	43	-	-	-	-	-	-	-	-
Lead	Lead	mg/kg	1	1,100	600	300	1200	25	-	-	<5	<5	-	13	-	-	-	<5	-	-	-	-	-	-	-	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	a-BHC	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
	b-BHC	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	chlordane	mg/kg	0.1		70	50	90	<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	DDD	mg/kg	0.05	0.7*				<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	DDT	mg/kg	0.05	180				<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	<0.15	-	-	-	-	-	<0.15	-	-	-	-	-	-	-	-	-	-	-	-
	Dieldrin	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan I	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan II	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin	mg/kg	0.05		20	10	20	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin ketone	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor	mg/kg	0.05		10	6	10	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Toxaphene	mg/kg	1		30	20	30	<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	3.1
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dinitrophenol	mg/kg	5					<5	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					<0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-
	2-nitrophenol	mg/kg	1					<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
	3-&4-methylphenol	mg/kg	0.4					<0.4	-	-	-	-	-	<0.4	-	-	-	-	-	-	-	-	-	-	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					<5	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					<5	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5
	Acenaphthylene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	0.7
	Acetophenone	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	1.7
	Benz(a)anthracene	mg/kg	0.1	2.5*				<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	3
	Benzo(a) pyrene	mg/kg	0.05	0.7				<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	4.4
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	<1.21	-	-	<1.21	-	<1.21	<1.21	-	<1.21	<1.21	<1.21	-	-	-	<1.21	-	-	-	6.554
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	2.6
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	2.9
	Chrysene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	2.8
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	1
	Fluoranthene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	7.7
	Fluorene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	2
	Naphthalene	mg/kg	0.1	170		3	3	<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	46
	Phenanthrene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	5.8
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					<0.5	-	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	8

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Natural	Natural	Natural	Natural	Fill	Fill	
Field ID	TP08-0.5	TP08-1.5	TP09-0.2	TP09-0.5	TP09-1.0	TP09-1.8	TP10-0.5	TP10-0.7	TP10-1.7	TP11-0.5	TP11-0.8	TP11-1.6	TP12-0.2	TP12-0.5	TP12-1.0	TP12-BH-1.2	TP12-BH-1.5	TP12-1.8	TP13-0.3	TP14-0.2	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
Metals	Antimony	mg/kg	10					-	-	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	-	-	9.3	-	-	-	19	-	-	-	-	-	-	-	-	-	7.3	-
	Barium	mg/kg		500*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	-	-	<2	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	-	-	<0.4	-	-	-	<0.4	-	-	-	-	-	-	-	-	-	<0.4	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
	Chromium (III+VI)	mg/kg	1	410				-	-	15	-	-	-	58	-	-	-	-	-	-	-	-	-	13	-
	Cobalt	mg/kg	5	50*	300	100	600	-	-	24	-	-	-	33	-	-	-	-	-	-	-	-	-	-	-
	Copper	mg/kg	1	210	17000	6000	30000	-	-	32	-	-	-	75	-	-	-	-	-	-	-	-	-	<5	-
	Iron	mg/kg	5					-	-	46,000	-	-	-	-	-	-	-	18,000	11,000	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	-	-	620	-	-	-	1,200	-	-	-	-	-	-	-	-	-	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1	-
	Molybdenum	mg/kg	1	10*				-	-	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	<10	-
	Nickel	mg/kg	1	250	1200	400	1200	-	-	100	-	-	-	130	-	-	-	-	-	-	-	-	-	5.8	-
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	<2	-	-	-	<2	-	-	-	-	-	-	-	-	-	<2	-
	Silver	mg/kg	1	20*				-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	<5	-
	Tin	mg/kg	1	50*				-	-	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	<10	-
	Vanadium	mg/kg	10	130*				-	-	13	-	-	-	54	-	-	-	-	-	-	-	-	-	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	-	-	45	-	-	-	62	-	-	-	-	-	-	-	-	-	15	-
Lead	Lead	mg/kg	1	1,100	600	300	1200	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	9.5	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	a-BHC	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Aldrin	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	<1	-	-	-	-	-	-	<1	-	-	<1	-	-	-	<0.1	-
	b-BHC	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	DDD	mg/kg	0.05	0.7*				-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	DDT	mg/kg	0.05	180				-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	<1.5	-	-	-	-	-	-	<1.5	-	-	<1.5	-	-	-	<0.15	-
	Dieldrin	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Endosulfan I	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Endosulfan II	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Endosulfan sulphate	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Endrin	mg/kg	0.05		20	10	20	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Endrin aldehyde	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Endrin ketone	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Heptachlor epoxide	mg/kg	0.05					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	<0.05	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	-	-	<0.5	<0.5	**2.9**
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	-	-	<0.5	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	<5	-	-	-	<5	-	-	<5	-	-	<5	-	-	-	-	<5	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					-	-	<0.2	-	-	-	<0.2	-	-	<0.2	-	-	<0.2	-	-	-	-	<0.2	-	-
	2-nitrophenol	mg/kg	1					-	-	<1	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	<1	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	<0.4	-	-	-	<0.4	-	-	<0.4	-	-	<0.4	-	-	-	-	<0.4	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	<5	-	-	-	<5	-	-	<5	-	-	<5	-	-	-	-	<5	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	<1	-	-	-	<1	-	-	<1	-	-	<1	-	-	-	-	<1	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	<5	-	-	-	<5	-	-	<5	-	-	<5	-	-	-	-	<5	-	-
	Acenaphthene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	<0.1	<0.1	<0.5	<0.5	<0.5
	Acenaphthylene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**0.2**	<0.1	<0.5	<0.5	**0.7**
	Acetophenone	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**0.2**	<0.1	<0.5	<0.5	**0.7**
	Benz(a)anthracene	mg/kg	0.1	2.5*				<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**2**	<0.1	<0.5	<0.5	**2.8**
	Benzo(a) pyrene	mg/kg	0.05	0.7				<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**2.3**	<0.05	<0.5	<0.5	**4.8**
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	<1.21	<1.21	<1.21	-	-	-	<1.21	-	-	<1.21	-	-	<1.21	-	-	**3**	<0.5	<1.21	<1.21	**6.951**
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**4.5**	<0.2	-	-	-
	Benzo(b)fluoranthene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**1.7**	<0.1	<0.5	<0.5	**3.4**
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	-	-	<0.5	<0.5	**3.1**
	Chrysene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**1.6**	<0.1	<0.5	<0.5	**2.7**
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**0.3**	<0.1	<0.5	<0.5	**0.9**
	Fluoranthene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**3.2**	<0.1	<0.5	<0.5	**4.3**
	Fluorene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	<0.1	<0.1	<0.5	<0.5	<0.5
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**1.3**	<0.1	<0.5	<0.5	**3.1**
	Naphthalene	mg/kg	0.1	170		3	3	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	<0.1	<0.1	<0.5	<0.5	<0.5
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-	**22**	<2	<0.5	<0.5	**36**
	Phenanthrene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**0.7**	<0.1	<0.5	<0.5	**1.9**
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	-	-	-	<0.5	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					<0.5	<0.5	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	**4**	<0.1	<0.5	<0.5	**5**

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																		
Sample Date								15/05/2014	16/05/2014	15/05/2014	26/06/2014	15/05/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
Purpose								LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology								Natural	Fill	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural
Field ID								TP14-0.6	TP14-0.6	TP14-0.9	TP14-BH-1.0	TP14-1.4	TP14-BH-1.5	TP15-0.2	TP15-0.5	TP15-0.6	TP15-1.5	TP16-0.4	TP16-0.5	TP16-0.7	TP16-BH-1.0	TP16-BH-1.5	TP16-1.5	TP17-0.2	TP17-0.4	TP17-1.3
Metals	Antimony	mg/kg	10					-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-
	Arsenic	mg/kg	2	100	300	100	500	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	7.2	-	-
	Barium	mg/kg		500*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	<2	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	-	-	-	-	-	-	-	-	-	-	<0.4	-	-	-	-	-	<0.4	-	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				-	-	-	-	-	-	-	-	-	-	34	-	-	-	-	-	15	-	-
	Cobalt	mg/kg	5	50*	300	100	600	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	<5	-	-
	Copper	mg/kg	1	210	17000	6000	30000	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	5.8	-	-
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	-	-	-	-	-	-	-	-	-	-	46	-	-	-	-	-	46	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	<0.1	-	-
	Molybdenum	mg/kg	1	10*				-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-
	Nickel	mg/kg	1	250	1200	400	1200	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	6.6	-	-
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	<2	-	-
	Silver	mg/kg	1	20*				-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	<5	-	-
	Tin	mg/kg	1	50*				-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-
	Vanadium	mg/kg	10	130*				-	-	-	-	-	-	-	-	-	-	67	-	-	-	-	-	30	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	-	-	-	-	-	-	-	-	-	-	25	-	-	-	-	-	47	-	-
Lead	Lead	mg/kg	1	1.100	600	300	1200	-	-	-	-	-	-	-	-	-	-	28	-	-	-	-	-	13	-	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	a-BHC	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Aldrin	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-
	b-BHC	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	DDD	mg/kg	0.05	0.7*				-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	DDT	mg/kg	0.05	180				-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	-	-	-	-	<1.5	-	-	-	<1.5	-	-	-	-	-	<1.5	-	-
	Dieldrin	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Endosulfan I	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Endosulfan II	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Endosulfan sulphate	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Endrin	mg/kg	0.05		20	10	20	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Endrin aldehyde	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Endrin ketone	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Heptachlor epoxide	mg/kg	0.05					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	**2.2**	-	-	<0.5	-	1.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	<5	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	2-methylphenol	mg/kg	0.2					-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	-	-	-	<0.2	-	-
	2-nitrophenol	mg/kg	1					-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	-	-	-	-	<0.4	-	-	-	<0.4	-	-	-	-	-	<0.4	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	<5	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	<5	-	-
	Acenaphthene	mg/kg	0.1					-	<0.5	-	<0.1	<0.5	<0.1	<0.5	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Acenaphthylene	mg/kg	0.1					-	**0.5**	-	<0.1	<0.5	<0.1	**0.6**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Acetophenone	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Anthracene	mg/kg	0.1					-	<0.5	-	<0.1	<0.5	<0.1	<0.5	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Benz(a)anthracene	mg/kg	0.1	2.5*				-	**1.3**	-	<0.1	<0.5	<0.1	**0.8**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Benzo(a) pyrene	mg/kg	0.05	0.7				-	**2.7**	-	<0.05	<0.5	<0.05	**1.6**	-	-	-	<0.5	-	-	<0.05	<0.05	-	<0.5	-	-
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	-	**4.058**	-	<0.5	<1.21	<0.5	**2.313**	-	-	-	<1.21	-	-	<0.5	<0.5	-	<1.21	-	-
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	<0.2	-	<0.2	-	-	-	-	-	-	-	<0.2	<0.2	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					-	**2.6**	-	<0.1	<0.5	<0.1	**1**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Benzo(k)fluoranthene	mg/kg	0.5					-	**1.4**	-	-	<0.5	-	**1.1**	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Chrysene	mg/kg	0.1					-	**1.2**	-	<0.1	<0.5	<0.1	**1.3**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Dibenz(a,h)anthracene	mg/kg	0.1					-	**0.6**	-	<0.1	<0.5	<0.1	<0.5	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Fluoranthene	mg/kg	0.1					-	**1.4**	-	<0.1	<0.5	<0.1	**3.8**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Fluorene	mg/kg	0.1					-	<0.5	-	<0.1	<0.5	<0.1	<0.5	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					-	**2.3**	-	<0.1	<0.5	<0.1	**1**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Naphthalene	mg/kg	0.1	170		3	3	-	<0.5	-	<0.1	<0.5	<0.1	<0.5	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	-	**18**	-	<2	<0.5	<2	-	-	-	-	<0.5	-	-	<2	<2	-	-	-	-
	Phenanthrene	mg/kg	0.1					-	<0.5	-	<0.1	<0.5	<0.1	**4**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	<0.5	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					-	**1.6**	-	<0.1	<0.5	<0.1	**3.8**	-	-	-	<0.5	-	-	<0.1	<0.1	-	<0.5	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Natural
								Field ID	TP18-0.5	TP18-0.6	TP18-1.5	TP19-0.2	TP20-0.4	TP20-0.6	TP20-0.8	TP20-1.8	TP21-0.2	TP21-0.5	TP22-0.2	TP22-0.4	TP23-0.2	TP23-0.7	TP23-1.5	TP24-0.4	TP24-1.0	TP24-2.0	TP25-0.4	TP26-0.4
Metals	Antimony	mg/kg	10					<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10
	Arsenic	mg/kg	2	100	300	100	500	<2	-	-	<2	10	-	-	-	-	-	-	-	2.3	-	-	-	-	-	-	<2
	Barium	mg/kg		500*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	<2	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2
	Boron	mg/kg	10		20000	4500	40000	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10
	Cadmium	mg/kg	0.4	10*	90	20	150	<0.4	-	-	<0.4	<0.4	-	-	-	-	-	-	-	<0.4	-	-	-	-	-	-	<0.4
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				<5	-	-	<5	15	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5
	Cobalt	mg/kg	5	50*	300	100	600	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5
	Copper	mg/kg	1	210	17000	6000	30000	<5	-	-	<5	<5	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	<5	-	-	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
	Mercury	mg/kg	0.1	6.6*	80	40	120	<0.1	-	-	<0.1	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	<0.1
	Molybdenum	mg/kg	1	10*				<10	-	-	<10	<10	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	<10
	Nickel	mg/kg	1	250	1200	400	1200	<5	-	-	<5	8.2	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	<2	-	-	<2	<2	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	<2
	Silver	mg/kg	1	20*				<5	-	-	<5	<5	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	<5
	Tin	mg/kg	1	50*				<10	-	-	<10	<10	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	<10
	Vanadium	mg/kg	10	130*				<10	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10
	Zinc	mg/kg	1	660	30000	7400	60000	<5	-	-	69	27	-	-	-	-	-	-	-	6.5	-	-	-	-	-	-	6.3
Lead	Lead	mg/kg	1	1.100	600	300	1200	<5	-	-	<5	23	-	-	-	-	-	-	-	14	-	-	-	-	-	-	<5
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	a-BHC	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Aldrin	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	<1	-	-	0.615	<1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-
	b-BHC	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	<0.1	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	DDD	mg/kg	0.05	0.7*				<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	DDT	mg/kg	0.05	180				<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	<1.5	-	-	<0.15	<1.5	-	-	-	-	-	-	-	<0.15	-	-	-	-	-	-	-
	Dieldrin	mg/kg	0.05					<0.5	-	-	0.59	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Endosulfan I	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Endosulfan II	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Endrin	mg/kg	0.05		20	10	20	<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Endrin aldehyde	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Endrin ketone	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Heptachlor	mg/kg	0.05		10	6	10	<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Heptachlor epoxide	mg/kg	0.05					<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	<0.5	-	-	<0.05	<0.5	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					<0.5	-	-	<0.5	<0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
	2,4-dinitrophenol	mg/kg	5					<5	-	-	<5	<5	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					<0.2	-	-	<0.2	<0.2	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-
	2-nitrophenol	mg/kg	1					<1	-	-	<1	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	3-&4-methylphenol	mg/kg	0.4					<0.4	-	-	<0.4	<0.4	-	-	-	-	-	-	-	<0.4	-	-	-	-	-	-	-
	3-methylcholanthrene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					<5	-	-	<5	<5	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					<1	-	-	<1	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					<5	-	-	<5	<5	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Acenaphthylene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Acetophenone	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.1	2.5*				<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Benzo(a) pyrene	mg/kg	0.05	0.7				<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	**0.6**	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	<1.21	-	-	<1.21	<1.21	-	-	-	<1.21	<1.21	**0.955**	<1.21	<1.21	<1.21	-	<1.21	-	-	<1.21	<1.21
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Chrysene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Dibenz(a,h)anthracene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Fluoranthene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	**0.8**	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Fluorene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Naphthalene	mg/kg	0.1	170		3	3	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	-	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	**2.3**	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Phenanthrene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	<0.5	-	-	<0.5	<0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	<0.5	**0.9**	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill
								Field ID	TP26-0.5	TP26-1.1	TP27-0.4	TP28-0.4	TP29-0.5	TP30-0.2	TP31-0.2	TP31-BH-0.5	TP31-BH-1.0	TP32-0.5	TP33-0.2	TP34-0.4	TP34-1.0	TP34-1.5	TP35-0.4	TP35-1.0	TP35-1.8	TP36-0.1	TP36-0.4
Metals	Antimony	mg/kg	10					-	-	<10	<10	-	-	<10	-	-	<10	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	-	-	8.6	9.6	-	<2	3.2	-	-	6	<2	-	-	-	-	-	-	-	-
	Barium	mg/kg		500*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	-	-	<2	<2	-	-	<2	-	-	<2	<2	-	-	-	-	-	-	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	<10	<10	-	-	<10	-	-	<10	<10	-	-	-	-	-	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	-	-	<0.4	<0.4	-	0.7	0.5	-	-	<0.4	<0.4	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				-	-	15	13	-	7.4	5.5	-	-	7.6	-	-	-	-	-	-	-	-	-
	Cobalt	mg/kg	5	50*	300	100	600	-	-	6.4	21	-	-	<5	-	-	<5	21	-	-	-	-	-	-	-	-
	Copper	mg/kg	1	210	17000	6000	30000	-	-	30	28	-	95	21	-	-	53	34	-	-	-	-	-	-	-	-
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	-	-	130	640	-	-	57	-	-	76	820	-	-	-	-	-	-	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	-	-	0.2	<0.1	-	<0.1	0.1	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-
	Molybdenum	mg/kg	1	10*				-	-	<10	<10	-	<10	<10	-	-	<10	-	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	-	-	21	82	-	11	<5	-	-	12	85	-	-	-	-	-	-	-	-
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	<2	<2	-	<2	<2	-	-	<2	<2	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	20*				-	-	<5	<5	-	<5	<5	-	-	<5	-	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	50*				-	-	<10	<10	-	<10	<10	-	-	<10	-	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	130*				-	-	27	12	-	-	<10	-	-	16	-	-	-	-	-	-	-	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	-	-	41	40	-	81	42	-	-	38	53	-	-	-	-	-	-	-	-
Lead	Lead	mg/kg	1	1.100	600	300	1200	-	-	38	<5	-	80	20	-	-	21	8.1	-	-	-	-	-	-	-	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	a-BHC	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Aldrin	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	-	-	-	<0.1	<1	-	-	-	<0.1	-	-	-	<1	-	-	-	-
	b-BHC	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	DDD	mg/kg	0.05	0.7*				-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	DDT	mg/kg	0.05	180				-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	-	-	-	<0.15	<1.5	-	-	-	<0.15	-	-	-	<1.5	-	-	-	-
	Dieldrin	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Endosulfan I	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Endosulfan II	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Endrin	mg/kg	0.05		20	10	20	-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Endrin aldehyde	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Endrin ketone	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Heptachlor epoxide	mg/kg	0.05					-	-	-	-	-	<0.05	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	-	-	-	<0.05	<0.5	-	-	-	<0.05	-	-	-	<0.5	-	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	<0.5	**0.6**	<0.5	**0.9**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	<5	<5	-	-	-	<5	-	-	-	<5	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	2-methylphenol	mg/kg	0.2					-	-	-	-	-	<0.2	<0.2	-	-	-	<0.2	-	-	-	<0.2	-	-	-	-
	2-nitrophenol	mg/kg	1					-	-	-	-	-	<1	<1	-	-	-	<1	-	-	-	<1	-	-	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	-	-	-	<0.4	<0.4	-	-	-	<0.4	-	-	-	<0.4	-	-	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	<5	<5	-	-	-	<5	-	-	-	<5	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	-	-	-	<1	<1	-	-	-	<1	-	-	-	<1	-	-	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	<5	<5	-	-	-	<5	-	-	-	<5	-	-	-	-
	Acenaphthene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Acenaphthylene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Acetophenone	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Anthracene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Benz(a)anthracene	mg/kg	0.1	2.5*				-	-	<0.5	<0.5	<0.5	**0.9**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Benzo(a) pyrene	mg/kg	0.05	0.7				-	-	**0.5**	**0.8**	<0.5	**1**	**0.5**	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	-	-	**0.855**	**1.193**	<1.21	**1.598**	**0.855**	-	-	<1.21	<1.21	-	-	-	<1.21	-	-	-	-
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					-	-	<0.5	**0.5**	<0.5	**0.7**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Benzo(k)fluoranthene	mg/kg	0.5					-	-	<0.5	<0.5	<0.5	**0.7**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Chrysene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	**1.1**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Dibenz(a,h)anthracene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Fluoranthene	mg/kg	0.1					-	-	**0.6**	**0.8**	<0.5	**1.8**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Fluorene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	**0.8**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Naphthalene	mg/kg	0.1	170		3	3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	-	-	**1.8**	**3.7**	<0.5	**11**	**0.5**	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-
	Phenanthrene	mg/kg	0.1					-	-	<0.5	<0.5	<0.5	**0.7**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					-	-	**0.7**	**1**	<0.5	**1.9**	<0.5	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill
								Field ID	TP36-0.9	TP36-1.6	TP37-0.5	TP37-0.9	TP37-1.5	TP38-0.5	TP39-0.2	TP40-0.1	TP40-0.5	TP40-0.8	TP40-1.5	TP41-0.5	TP42-0.3	TP42-0.3B	TP43-0.2	TP43-0.5	TP43-1.0	TP43-1.5	TP44-0.2	TP45-0.1
Metals	Antimony	mg/kg	10					-	-	-	-	-	<10	<10	-	-	-	-	<10	<10	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	-	-	-	-	-	16	20	-	-	-	-	8.6	83	-	8.2	-	-	-	-	-
	Barium	mg/kg		500*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	-	-	-	-	-	<2	<2	-	-	-	-	<2	<2	-	-	-	-	-	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	-	-	-	<10	<10	-	-	-	-	<10	<10	-	-	-	-	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	-	-	-	-	-	<0.4	<0.4	-	-	-	-	<0.4	<0.4	-	<0.4	-	-	-	-	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				-	-	-	-	-	49	30	-	-	-	-	19	58	-	12	-	-	-	-	-
	Cobalt	mg/kg	5	50*	300	100	600	-	-	-	-	-	33	<5	-	-	-	-	<5	5.7	-	-	-	-	-	-	-
	Copper	mg/kg	1	210	17000	6000	30000	-	-	-	-	-	73	5	-	-	-	-	<5	<5	-	22	-	-	-	-	-
	Iron	mg/kg	5					-	-	13,000	-	-	-	-	23,000	12,000	2,600	36,000	-	-	-	-	-	840	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	-	-	-	-	-	1,200	52	-	-	-	-	18	45	-	-	-	-	-	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	-	-	-	-	-	<0.1	<0.1	-	-	-	-	<0.1	0.2	-	<0.1	-	-	-	-	-
	Molybdenum	mg/kg	1	10*				-	-	-	-	-	<10	<10	-	-	-	-	<10	<10	-	<10	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	-	-	-	-	-	130	9.1	-	-	-	-	5.5	16	-	80	-	-	-	-	-
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	-	-	-	<2	<2	-	-	-	-	<2	<2	-	<2	-	-	-	-	-
	Silver	mg/kg	1	20*				-	-	-	-	-	<5	<5	-	-	-	-	<5	<5	-	<5	-	-	-	-	-
	Tin	mg/kg	1	50*				-	-	-	-	-	<10	<10	-	-	-	-	<10	<10	-	<10	-	-	-	-	-
	Vanadium	mg/kg	10	130*				-	-	-	-	-	40	53	-	-	-	-	38	230	-	-	-	-	-	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	-	-	-	-	-	55	9.8	-	-	-	-	18	5.5	-	42	-	-	-	-	-
Lead	Lead	mg/kg	1	1,100	600	300	1200	-	-	-	-	-	<5	14	-	-	-	-	13	19	-	<5	-	-	-	-	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	a-BHC	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Aldrin	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<0.1	-	-	-	-	-
	b-BHC	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	DDD	mg/kg	0.05	0.7*				-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	DDT	mg/kg	0.05	180				-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	<1.5	<0.15	-	-	-	-	-
	Dieldrin	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Endosulfan I	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Endosulfan II	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Endrin	mg/kg	0.05		20	10	20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Endrin aldehyde	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Endrin ketone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Heptachlor epoxide	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.05	-	-	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	-	-	-	-	-
	2-nitrophenol	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	-	-	-	-	-	-	-	-	-	-	<0.4	<0.4	<0.4	-	-	-	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Acenaphthylene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Acetophenone	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Benz(a)anthracene	mg/kg	0.1	2.5*				-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Benzo(a) pyrene	mg/kg	0.05	0.7				-	-	-	-	-	<0.5	**0.6**	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	-	-	-	-	-	<1.21	**0.955**	-	-	-	-	<1.21	<1.21	<1.21	<1.21	-	-	-	-	-
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Benzo(k)fluoranthene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Chrysene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Dibenz(a,h)anthracene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Fluoranthene	mg/kg	0.1					-	-	-	-	-	<0.5	**0.7**	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Fluorene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Naphthalene	mg/kg	0.1	170		3	3	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	-	-	-	-	-	<0.5	**2.1**	-	-	-	-	<0.5	<0.5	-	<0.5	-	-	-	-	-
	Phenanthrene	mg/kg	0.1					-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					-	-	-	-	-	<0.5	**0.8**	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	18/08/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Fill	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
								Field ID	MW24-0.3	MW24-1.0	MW24-2.0	SW1-1.0	SW2-1.0	SW3-0.6	SW4-0.4	SW5-0.4	SW6-0.7	SW7-0.5	SW8-0.6	SW9-0.4	SW10-0.3	SW11-0.6	SW12-0.6	SW13-0.3	SW14-0.4	SW15-0.5	G1-0.2
Metals	Antimony	mg/kg	10					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/kg	2	100	300	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Barium	mg/kg		500*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Beryllium	mg/kg	2	4*	90	60	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/kg	10		20000	4500	40000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cadmium	mg/kg	0.4	10*	90	20	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/kg	1	0.4*	300	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	410				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt	mg/kg	5	50*	300	100	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Copper	mg/kg	1	210	17000	6000	30000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Iron	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/kg	5		19000	3800	14000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mercury	mg/kg	0.1	6.6*	80	40	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Molybdenum	mg/kg	1	10*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/kg	1	250	1200	400	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phosphorus	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/kg	2	1*	700	200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Silver	mg/kg	1	20*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/kg	1	50*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/kg	10	130*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Zinc	mg/kg	1	660	30000	7400	60000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	Lead	mg/kg	1	1,100	600	300	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Picoline	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-Chloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	a-BHC	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin	mg/kg			10	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	b-BHC	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	chlordane	mg/kg	0.1		70	50	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DDD	mg/kg	0.05	0.7*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DDT	mg/kg	0.05	180				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	DDT+DDE+DDD	mg/kg			400	240	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dieldrin	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan I	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan II	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin	mg/kg	0.05		20	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin ketone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	g-BHC (Lindane)	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor	mg/kg	0.05		10	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methoxychlor	mg/kg	0.05		400	300	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Toxaphene	mg/kg	1		30	20	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Chlorfenvinphos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	mg/kg	0.2		250	160	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dinitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-nitrophenol	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-&4-methylphenol	mg/kg	0.4					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-methylcholanthrene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	mg/kg	0.4					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-methylphenol	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	mg/kg	5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthylene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetophenone	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benz(a)anthracene	mg/kg	0.1	2.5*				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(a) pyrene	mg/kg	0.05	0.7				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(a)pyrene TEQ (upper bound)**	mg/kg			3	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)&(k)fluoranthene	mg/kg	0.2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(k)fluoranthene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chrysene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,h)anthracene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoranthene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluorene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Naphthalene	mg/kg	0.1	170		3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PAHs (Sum of total)	mg/kg	0.5		300	300	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenanthrene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenol	mg/kg	0.5	3.8*	40000	3000	45000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Picloram	mg/kg	0.01		5700	4500	6600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date																				
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Fill
Field ID	B1-0.3	B1-0.5	B2-0.4	B3-0.2	B3-0.5	B4-0.3	B5-0.2	B5-1.0	B6-0.4	B6-1.0	B7-0.3	B8-0.5	B8-1.3	B10-0.4	B10-1.1	B12-0.4	B12-0.9	B13-0.4	B14-0.3	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
Pesticides	Bifenthrin	mg/kg	2		**730**	**600**	**840**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Mirex	mg/kg	0.01		**20**	**10**	**20**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<15	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		**1**	**1**	**1**	-	-	-	-	-	-	<0.1	<2	-	-	<0.1	-	-	-	<0.1	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
	Acetone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.5	-
TPH	C10-C16	mg/kg	50	**120**		**110/240/440**	**110/240/440**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	-	<50
	C16-C34	mg/kg	100	**300**				**360**	<100	<100	<100	<100	**150**	<100	**230**	<100	<100	<100	<100	<100	**180**	<100	**170**	<100	-	<100
	C34-C40	mg/kg	100	**2,800**				**200**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100
	F2-NAPHTHALENE	mg/kg	50			**110/240/440**	**110/240/440**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/kg	250					**560**	<50	<50	<50	<50	**150**	<50	**230**	<50	<50	<50	<50	<50	**180**	<50	**170**	<50	-	<50
	C6-C10	mg/kg	20	**180**				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	<10
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has been adopted for benzo(b+j)fluoranthene.

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	11/04/2012	11/04/2012	11/04/2012	3/04/2012	3/04/2012	3/04/2012	3/04/2012	10/04/2012	10/04/2012	10/04/2012	10/04/2012	3/04/2012	4/04/2012	4/04/2012	4/04/2012	10/04/2012	10/04/2012	3/04/2012	3/04/2012
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural
Field ID	B14-0.8	B15-0.35	B15-1.0	B16-0.3	B16-0.5	B17-0.4	B18-0.4	B19-0.3	B19-1.0	B20-0.4	B20-1.0	B21-0.4	B22-0.3	B23-0.4	B23-0.6	B24-0.3	B25-0.5	B26-0.5	B26-1.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
Pesticides	Bifenthrin	mg/kg	2		**730**	**600**	**840**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		**20**	**10**	**20**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	<5	-	<50	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		**1**	**1**	**1**	-	-	-	<0.3	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-
	Acetone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-
	Isophorone	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	<5	-	<5	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	<1	-	<10	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	<1	-	<10	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	<0.5	-	<5	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	**120**		**110/240/440**	**110/240/440**	<50	<50	<50	<50	<50	<50	<50	-	<50	<50	<50	<50	<50	<50	<50	<50
	C16-C34	mg/kg	100	**300**				<100	<100	<100	<100	<100	<100	<100	-	<100	<100	<100	<100	<100	**170**	<100	**130**	<100	<100	<100
	C34-C40	mg/kg	100	**2.800**				<100	<100	<100	**130**	<100	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	F2-NAPHTHALENE	mg/kg	50			**110/240/440**	**110/240/440**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/kg	250					<50	<50	<50	**130**	<50	<50	<50	-	<50	<50	<50	<50	<50	**170**	<50	**130**	<50	<50	<50
	C6-C10	mg/kg	20	**180**				<10	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	3/04/2012	4/04/2012	5/04/2012	5/04/2012	5/04/2012	11/04/2012	11/04/2012	10/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	5/04/2012	5/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012	4/04/2012
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Fill	Fill
Field ID	B27-0.75	B28-0.3	B29-0.3	B29-1.0	B30-0.3	B31-0.25	B31-0.7	B32-0.4	B33-0.6	B34-0.3	B34-0.6	B35-0.25	B36-2.0	B36-4.0	B38-0.5	B38-0.8	B39-0.5	B39-0.8	B40-0.5

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
Pesticides	Bifenthrin	mg/kg	2		**730**	**600**	**840**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		**20**	**10**	**20**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		**1**	**1**	**1**	-	-	<0.2	-	-	-	-	<0.1	-	-	-	-	<0.1	-	<0.3	
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	**120**		**110/240/440**	**110/240/440**	<50	**60**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C16-C34	mg/kg	100	**300**				<100	**500**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C34-C40	mg/kg	100	**2,800**				**120**	**120**	<100	<100	<100	<100	<100	<100	<100	<100	**1,040**	<100	<100	<100	<100	<100
	F2-NAPHTHALENE	mg/kg	50			**110/240/440**	**110/240/440**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/kg	250					**120**	**680**	<50	<50	<50	<50	<50	<50	<50	<50	**1,700**	<50	<50	<50	<50	<50
	C6-C10	mg/kg	20	**180**				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	4/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	11/04/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	2/05/2012	3/04/2012	3/04/2012	5/04/2012	11/04/2012	11/04/2012
Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment
Geology	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Natural	Natural	Natural
Field ID	B40-1.2	B41-0.5	B41-0.8	B43-0.1	B44-0.1	B45-0.1	BH46-0.1	BH46-0.5	BH47-0.1	BH47-0.5	BH48-0.1	BH48-0.5	BH49-0.1	BH49-0.5	MW2-0.5	MW3-0.5	MW3-8.0	MW4-8.0	MW5-8.0

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
Pesticides	Bifenthrin	mg/kg	2		**730**	**600**	**840**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Mirex	mg/kg	0.01		**20**	**10**	**20**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
	Butyl benzyl phthalate	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Diethylphthalate	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Dimethyl phthalate	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Di-n-butyl phthalate	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Di-n-octyl phthalate	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		**1**	**1**	**1**	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
	4-Methyl-2-pentanone	mg/kg	0.05					-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
	Acetone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Isophorone	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Vinyl acetate	mg/kg						-	<5	-	-	-	-	-	-	-	<5	-	<5	-	-	<5	-	<5	<5	<5
SVOCs	2-(acetylamino) fluorene	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	3,3-Dichlorobenzidine	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	4-bromophenyl phenyl ether	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	4-Nitroquinoline-N-oxide	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Azobenzene	mg/kg						-	<1	-	-	-	-	-	-	-	<1	-	<1	-	-	<1	-	<1	<1	<1
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Bis(2-chloroethyl)ether	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Hexachloropropene	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Methapyrilene	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	N-nitrosomorpholine	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	N-nitrosopiperidine	mg/kg	0.5					-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	N-nitrosopyrrolidine	mg/kg						-	<1	-	-	-	-	-	-	-	<1	-	<1	-	-	<1	-	<1	<1	<1
	Phenacetin	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
TPH	C10-C16	mg/kg	50	**120**		**110/240/440**	**110/240/440**	<50	<50	<50	**70**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	-	-	-
	C16-C34	mg/kg	100	**300**				<100	<100	<100	**3,560**	<100	<100	**200**	<100	<100	<100	<100	<100	**1,670**	<100	<100	<100	-	-	-
	C34-C40	mg/kg	100	**2,800**				<100	<100	<100	**670**	<100	<100	<100	<100	<100	<100	<100	<100	**860**	<100	<100	<100	-	-	-
	F2-NAPHTHALENE	mg/kg	50			**110/240/440**	**110/240/440**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/kg	250					<50	<50	<50	**4,300**	<50	<50	**200**	<50	<50	<50	<50	<50	**2,530**	<50	<50	<50	-	-	-
	C6-C10	mg/kg	20	**180**				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	-	-	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5
	trans-1,4-Dichloro-2-butene	mg/kg						-	<0.5	-	-	-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	<0.5	<0.5

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	11/04/2012	11/04/2012	4/04/2012	4/04/2012	11/04/2012	19/02/2014	26/02/2014	13/03/2014	13/03/2014	13/03/2014	13/03/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014	3/04/2014
								Purpose	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	Alliance Assessment	LRM TIT Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM UST Validation	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural
								Field ID	MW6-8.0	MW7-8.0	MW8-0.3	MW8-8.0	MW9-8.0	NW PIT VAL 1	Pit-Base-East	Tank Pit- East Wall	Tank Pit- North Wall	Tank Pit- South Wall	Tank Pit- West Wall	MW10_1.0	MW10_10.5	MW10_2.0	MW11_7.0	MW12_10.0	MW13_6.0
Pesticides	Bifenthrin	mg/kg	2		730	600	840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		20	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	<5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	<5	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	<5	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Acetone	mg/kg	0.05					-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	<0.5	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-
	Isophorone	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	120		110/240/440	110/240/440	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	-	-	-	-	-	-	-
	C16-C34	mg/kg	100	300				<100	<100	<100	<100	<100	**170**	<100	<100	<100	<100	<100	-	-	-	-	-	-	-
	C34-C40	mg/kg	100	2.800				<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	-	-	-	-	-	-
	F2-NAPHTHALENE	mg/kg	50			110/240/440	110/240/440	-	-	-	-	-	<50	<50	<50	<50	<50	<50	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/kg	250					<50	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	180				<10	<10	<10	<10	<10	<20	<25	<25	<25	<25	<25	-	-	-	-	-	-	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Fill
Field ID	TP01-0.3	TP01-0.6	TP01-1.5	TP02-0.5	TP02-1.0	TP03-0.5	TP04-0.4	TP04-0.9	TP05-0.2	TP05-0.6	TP06-0.5	TP06-0.8	TP06-1.4	TP06-2.5	TP07-0.5	TP07-0.8	TP07-1.3	TP07-1.5	TP08-0.2	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
Pesticides	Bifenthrin	mg/kg	2		**730**	**600**	**840**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		**20**	**10**	**20**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					<20	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					<1	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					<20	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Arochlor 1221	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Arochlor 1232	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Arochlor 1242	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Arochlor 1248	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Arochlor 1254	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	Arochlor 1260	mg/kg	0.1					<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
	PCBs (Sum of total)	mg/kg	0.1		**1**	**1**	**1**	<0.1	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.1
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
	Acetone	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					<0.05	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	**120**		**110/240/440**	**110/240/440**	<50	-	-	<50	-	-	<50	-	-	-	<50	-	-	-	<50	-	-	-	<50
	C16-C34	mg/kg	100	**300**				<100	-	-	<100	-	-	<100	-	-	-	<100	-	-	-	<100	-	-	-	**150**
	C34-C40	mg/kg	100	**2,800**				<100	-	-	<100	-	-	<100	-	-	-	<100	-	-	-	<100	-	-	-	<100
	F2-NAPHTHALENE	mg/kg	50			**110/240/440**	**110/240/440**	<50	-	-	<50	-	-	<50	-	-	-	<50	-	-	-	<50	-	-	-	<50
	C10 - C40 (Sum of total)	mg/kg	250					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	**180**				<20	-	-	<20	-	-	<20	-	-	-	<20	-	-	-	<20	-	-	-	<20
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Natural	Natural	Natural	Natural	Fill	Fill	
Field ID	TP08-0.5	TP08-1.5	TP09-0.2	TP09-0.5	TP09-1.0	TP09-1.8	TP10-0.5	TP10-0.7	TP10-1.7	TP11-0.5	TP11-0.8	TP11-1.6	TP12-0.2	TP12-0.5	TP12-1.0	TP12-BH-1.2	TP12-BH-1.5	TP12-1.8	TP13-0.3	TP14-0.2	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																
Pesticides	Bifenthrin	mg/kg	2		730	600	840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		20	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	<20	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<20	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	<20	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<20	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	PCBs (Sum of total)	mg/kg	0.1		1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-
	Acetone	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-
	Allyl chloride	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-
	Carbon disulfide	mg/kg	0.05					-	-	<0.05	-	-	-	-	-	-	<0.05	-	-	<0.05	-	-	-	-	<0.05	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	120		110/240/440	110/240/440	-	<50	-	<50	-	-	<50	-	-	<50	-	-	<50	-	-	-	-	<50	<50	-
	C16-C34	mg/kg	100	300				-	<100	-	<100	-	-	<100	-	-	<100	-	-	<100	-	-	-	-	<100	<100	-
	C34-C40	mg/kg	100	2.800				-	<100	-	<100	-	-	<100	-	-	<100	-	-	<100	-	-	-	-	<100	<100	-
	F2-NAPHTHALENE	mg/kg	50			110/240/440	110/240/440	-	<50	-	<50	-	-	<50	-	-	<50	-	-	<50	-	-	-	-	<50	<50	-
	C10 - C40 (Sum of total)	mg/kg	250					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	180				-	<20	-	<20	-	-	<20	-	-	<20	-	-	<20	-	-	-	-	<20	<20	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	15/05/2014	16/05/2014	15/05/2014	26/06/2014	15/05/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Fill	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Natural	Natural	Fill	Natural	Natural
Field ID	TP14-0.6	TP14-0.6	TP14-0.9	TP14-BH-1.0	TP14-1.4	TP14-BH-1.5	TP15-0.2	TP15-0.5	TP15-0.6	TP15-1.5	TP16-0.4	TP16-0.5	TP16-0.7	TP16-BH-1.0	TP16-BH-1.5	TP16-1.5	TP17-0.2	TP17-0.4	TP17-1.3

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
Pesticides	Bifenthrin	mg/kg	2		730	600	840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		20	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	<0.5	<0.5	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	<2	-	-	-	<2	-	-	<2	<2	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-
	Acetone	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	120		110/240/440	110/240/440	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<50	-	-
	C16-C34	mg/kg	100	300				-	-	-	-	-	-	<100	-	-	-	-	-	-	-	<100	-	-
	C34-C40	mg/kg	100	2.800				-	-	-	-	-	-	<100	-	-	-	-	-	-	-	<100	-	-
	F2-NAPHTHALENE	mg/kg	50			110/240/440	110/240/440	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<50	-	-
	C10 - C40 (Sum of total)	mg/kg	250					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	180				-	-	-	-	-	-	<20	-	-	-	-	-	-	-	<20	-	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	<20	-	-	-	<20	-	-	<20	<20	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Natural	Natural	Fill	Natural	Natural	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Natural
Field ID	TP18-0.5	TP18-0.6	TP18-1.5	TP19-0.2	TP20-0.4	TP20-0.6	TP20-0.8	TP20-1.8	TP21-0.2	TP21-0.5	TP22-0.2	TP22-0.4	TP23-0.2	TP23-0.7	TP23-1.5	TP24-0.4	TP24-1.0	TP24-2.0	TP25-0.4	TP26-0.4			

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
Pesticides	Bifenthrin	mg/kg	2		**730**	**600**	**840**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		**20**	**10**	**20**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	<20	-	-	-	-	-	-	-	<20	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	<1	-	-	-	-	-	-	-	<1	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	<20	-	-	-	-	-	-	-	<20	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					<0.5	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		**1**	**1**	**1**	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					<2	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-
	Acetone	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					<0.05	-	-	<0.05	<0.05	-	-	-	-	-	-	<0.05	-	-	-	-	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	**120**		**110/240/440**	**110/240/440**	<50	-	-	<50	<50	-	-	-	<50	<50	<50	<50	<50	<50	-	<50	-	-
	C16-C34	mg/kg	100	**300**				<100	-	-	<100	<100	-	-	-	<100	<100	<100	<100	<100	<100	-	<100	-	-
	C34-C40	mg/kg	100	**2.800**				<100	-	-	<100	<100	-	-	-	<100	<100	<100	<100	<100	<100	-	<100	-	-
	F2-NAPHTHALENE	mg/kg	50			**110/240/440**	**110/240/440**	<50	-	-	<50	<50	-	-	-	<50	<50	<50	<50	<50	<50	-	<50	-	-
	C10 - C40 (Sum of total)	mg/kg	250					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	**180**				<20	-	-	<20	<20	-	-	-	<20	<20	<20	<20	<20	<20	-	<20	-	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					<20	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil	Sample Date	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	26/06/2014	26/06/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	15/05/2014	16/05/2014	16/05/2014
								Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
								Geology	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Natural	Fill	Fill	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill
								Field ID	TP26-0.5	TP26-1.1	TP27-0.4	TP28-0.4	TP29-0.5	TP30-0.2	TP31-0.2	TP31-BH-0.5	TP31-BH-1.0	TP32-0.5	TP33-0.2	TP34-0.4	TP34-1.0	TP34-1.5	TP35-0.4	TP35-1.0	TP35-1.8	TP36-0.1	TP36-0.4
Pesticides	Bifenthrin	mg/kg	2		730	600	840	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		20	10	20	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		1	1	1	-	-	-	-	-	<0.1	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Acetone	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	<0.5	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	120		110/240/440	110/240/440	-	-	<50	<50	<50	<50	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-
	C16-C34	mg/kg	100	300				-	-	<100	<100	<100	210	750	<100	<100	110	-	-	-	-	-	-	-	-	-
	C34-C40	mg/kg	100	2.800				-	-	<100	<100	<100	<100	330	<100	<100	<100	-	-	-	-	-	-	-	-	-
	F2-NAPHTHALENE	mg/kg	50			110/240/440	110/240/440	-	-	<50	<50	<50	<50	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/kg	250					-	-	-	-	-	-	-	<250	<250	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	180				-	-	<20	<20	<20	<20	<20	<25	<25	<20	-	-	-	-	-	-	-	-	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014	16/05/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Natural	Natural	Fill	Natural	Natural	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Natural	Natural	Natural	Fill	Fill		
Field ID	TP36-0.9	TP36-1.6	TP37-0.5	TP37-0.9	TP37-1.5	TP38-0.5	TP39-0.2	TP40-0.1	TP40-0.5	TP40-0.8	TP40-1.5	TP41-0.5	TP42-0.3	TP42-0.3B	TP43-0.2	TP43-0.5	TP43-1.0	TP43-1.5	TP44-0.2	TP45-0.1		

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
Pesticides	Bifenthrin	mg/kg	2		730	600	840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		20	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
	PCBs (Sum of total)	mg/kg	0.1		1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-
	Acetone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	-	-	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	120		110/240/440	110/240/440	-	-	-	-	-	-	<50	-	-	-	-	<50	<50	-	<50	-	-
	C16-C34	mg/kg	100	300				-	-	-	-	-	-	<100	-	-	-	-	<100	<100	-	<100	-	-
	C34-C40	mg/kg	100	2.800				-	-	-	-	-	-	<100	-	-	-	-	<100	<100	-	<100	-	-
	F2-NAPHTHALENE	mg/kg	50			110/240/440	110/240/440	-	-	-	-	-	-	<50	-	-	-	-	<50	<50	-	<50	-	-
	C10 - C40 (Sum of total)	mg/kg	250					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	180				-	-	-	-	-	-	<20	-	-	-	-	<20	<20	-	<20	-	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A2:
SOIL ASSESSMENT RESULTS AGAINST HEALTH BASED AND ECOLOGICAL CRITERIA
33 Jack Road, Cheltenham, Victoria

Sample Date	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	26/06/2014	18/08/2014
Purpose	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment	LRM Assessment
Geology	Fill	Natural	Natural	Natural	Natural	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill
Field ID	MW24-0.3	MW24-1.0	MW24-2.0	SW1-1.0	SW2-1.0	SW3-0.6	SW4-0.4	SW5-0.4	SW6-0.7	SW7-0.5	SW8-0.6	SW9-0.4	SW10-0.3	SW11-0.6	SW12-0.6	SW13-0.3	SW14-0.4	SW15-0.5	G1-0.2	

Chem_Group	Chemical Name	Units	EQL	NEPM ESL/EIL	NEPM 2013 Recreational C Soil	NEPM 2013 Residential A Soil	NEPM 2013 Residential B Soil																	
Pesticides	Bifenthrin	mg/kg	2		730	600	840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzilate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mirex	mg/kg	0.01		20	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/kg	1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.1					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	mg/kg	0.1		1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/kg	2					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetone	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	mg/kg	0.05					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Isophorone	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs	2-(acetylamino) fluorene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	0.5					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/kg	50	120		110/240/440	110/240/440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C16-C34	mg/kg	100	300				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C34-C40	mg/kg	100	2.800				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	F2-NAPHTHALENE	mg/kg	50			110/240/440	110/240/440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/kg	250					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	C6-C10	mg/kg	20	180				-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
VOCs	cis-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	mg/kg	20					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	mg/kg						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* Adopted Criteria Canadian Soil Quality Guidelines
**LRM calculated B(a)P TEQ concentrations for Alliance samples to compare Results to LRMs adopted criteria. The concentration for benzo(b)fluoranthene has

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW9A	MW9A	MW9A	MW9A	MW9AR	MW09AR	MW09AR	SW01	SW01	SW02	SW02	SW05	SW05
Sampled Date	23/04/2012	4/09/2013	20/03/2014	11/04/2014	22/05/2014	1/07/2014	4/08/2014	3/07/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG		4/09/2013	20/03/2014	11/04/2014	22/05/2014	4267	4473	4290	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 2	Round 4	Round 6	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9
	Heptachlor (including its epoxide)	mg/L							-	<0.0002	-	-	<0.01	-	-	-	-	-	-	-	-
	Tokuthion	mg/L	0.002						-	-	-	-	<0.002	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/L							-	<0.008	<0.008	<0.008	<0.008	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	Acetaldehyde	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/L	0.25						-	-	-	-	<0.25	-	-	-	-	-	-	-	-
	Carbonate as CaCO3	mg/L	5						-	-	-	-	-	<5	-	<5	-	<5	-	<5	-
	Ethyl acrylate	µg/L	1000						-	-	-	-	<1,000	-	-	-	-	-	-	-	-
	Formaldehyde	mg/L	0.1		**0.5**	**0.05(#18)**	**0.05**		-	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-
	Methyl acrylate	µg/L	1000						-	-	-	-	<1,000	-	-	-	-	-	-	-	-
	Nitrogen (Organic)	mg/L	0.2						-	-	-	-	<0.2	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						-	-	-	-	<0.001	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	2-naphthylamine	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Diphenylamine	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	3-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
BTEX	Benzene	µg/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ethylbenzene	µg/L	1	**4(#10)**	**300/3(18#)**		**300/3(#18)**	**300/3(#)**	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	1	**180(#10)**	**800/25(#)**		**800/25(#18)**	**800/25(#)**	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene (m & p)	µg/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene Total	µg/L	3		**600/20(#)**		**600/20(#18)**	**600/20(#)**	<4	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						0.03	0.02	<0.02	<0.02	0.13	0.099	0.54	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,1-trichloroethane	µg/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	-	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1,2,2-tetrachloroethane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,2-trichloroethane	µg/L	1	**1900**					-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1-dichloroethane	µg/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(#9)**	-	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloroethene	µg/L	0.5	**700(#10)**	**30**		**30(#18)**	**30**	-	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloropropene	µg/L	1						-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
	1,2,3-trichloropropane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dibromo-3-chloropropane	µg/L	1						-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dichloroethane	µg/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	-	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dichloropropane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-dichloropropane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,2-dichloropropane	µg/L	1						-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
	Benzyl chloride	mg/L	0.005						-	-	-	-	<0.005	-	-	-	-	-	-	-	-
	Bromochloromethane	µg/L	1						-	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromodichloromethane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromoform	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbon tetrachloride	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chlorodibromomethane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chloroethane	µg/L	1						-	<1	-	-	<1	<10	<10	<10	<10	<10	<10	<10	<10
	Chloroform	µg/L	1	**370**	**250**		**250(#18)**	**250**	-	<5	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1
	Chloromethane	µg/L	1						-	<1	<1	<1	<1	<10	<10	<10	<10	<10	<10	<10	<10
	cis-1,2-dichloroethene	µg/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	-	20	**4**	<1	**28**	**22**	**51**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	cis-1,3-dichloropropene	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibromomethane	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	µg/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	-	<1	<1	<1	<1	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	µg/L	1		**0.7**				-	-	-	-	<5	<1	<1	<1	<1	<1	<1	<1	<1
	Hexachlorocyclopentadiene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Hexachloroethane	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Trichloroethene	µg/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#11)/4.9(#9)**	-	**15**	**2**	<1	**35**	**27**	**74**	<0.5	<0.5	**0.5**	**1**	<0.5	<0.5
	Tetrachloroethene	µg/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	-	**2**	<1	<1	**100**	**110**	**320**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,2-dichloroethene	µg/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	-	<1	<1	<1	**5**	**5**	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,3-dichloropropene	µg/L	1						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Vinyl chloride	µg/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	-	<1	<1	<1	<1	<10	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Nitrobenzene	µg/L	50						-	-	-	-	<50	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	SW06	SW06	SW07	SW08	SW08	Split (SW08)	Dup (SW08)	SW09	SW10	SW13	SW13	SW15	SW15
Sampled Date	3/07/2014	6/08/2014	6/08/2014	2/07/2014	4/08/2014	4/08/2014	4/08/2014	6/08/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG	4290	4495	4495	4273	4473	114196	4473	4495	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 9	Round 7	Round 9	Round 9	Round 9	Round 9	Round 9	Round 7	Round 9	Round 7	Round 9
	Heptachlor (including its epoxide)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Tokuthion	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/L							<0.004	<0.004	<0.004	<0.004	<0.004	-	-	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	Acetaldehyde	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/L	0.25						-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbonate as CaCO3	mg/L	5						<5	-	-	<5	-	-	-	-	-	<5	-	<5	-
	Ethyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/L	0.1		**0.5**	**0.05(#18)**	**0.05**		-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Organic)	mg/L	0.2						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	µg/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	-	<1	<1	-	<1	-	-	<1	<1	<1	<1
	Ethylbenzene	µg/L	1	**4(#10)**	**300/3(18#)**		**300/3(#18)**	**300/3(#)**	<1	<1	-	<1	<1	-	<1	-	-	<1	<1	<1	<1
	Toluene	µg/L	1	**180(#10)**	**800/25(#)**		**800/25(#18)**	**800/25(#)**	<1	<1	-	<1	<1	-	<1	-	-	<1	<1	<1	<1
	Xylene (m & p)	µg/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	-	<2	<2	-	<2	-	-	<2	<2	<2	<2
	Xylene (o)	µg/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<1	<1	-	<1	<1	-	<1	-	-	<1	<1	<1	<1
	Xylene Total	µg/L	3		**600/20(#)**		**600/20(#18)**	**600/20(#)**	<3	<3	-	<3	<3	-	<3	-	-	<3	<3	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						<0.01	<0.01	-	<0.01	<0.01	-	<0.01	-	-	<0.01	<0.01	<0.01	<0.01
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,1,1-trichloroethane	µg/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1,2,2-tetrachloroethane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,1,2-trichloroethane	µg/L	1	**1900**					<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,1-dichloroethane	µg/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(#9)**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloroethene	µg/L	0.5	**700(#10)**	**30**		**30(#18)**	**30**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,2,3-trichloropropane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,2-dibromo-3-chloropropane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,2-dichloroethane	µg/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,3-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	2,2-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Benzyl chloride	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Bromodichloromethane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Bromoform	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Carbon tetrachloride	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Chlorodibromomethane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Chloroethane	µg/L	1						<10	<10	<10	<10	<10	-	-	<10	<10	<10	<10	<10	<10
	Chloroform	µg/L	1	**370**	**250**		**250(#18)**	**250**	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Chloromethane	µg/L	1						<10	<10	<10	<10	<10	-	-	<10	<10	<10	<10	<10	<10
	cis-1,2-dichloroethene	µg/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	cis-1,3-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Dibromomethane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Dichloromethane	µg/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	µg/L	1		**0.7**				<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Hexachlorocyclopentadiene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	µg/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#11)/4.9(#9)**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Tetrachloroethene	µg/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,2-dichloroethene	µg/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,3-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Vinyl chloride	µg/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	<0.3	<0.3	<0.3	<0.3	<0.3	-	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	µg/L	50						-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW9A	MW9A	MW9A	MW9A	MW9AR	MW09AR	MW09AR	SW01	SW01	SW02	SW02	SW05	SW05
Sampled Date	23/04/2012	4/09/2013	20/03/2014	11/04/2014	22/05/2014	1/07/2014	4/08/2014	3/07/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG		4/09/2013	20/03/2014	11/04/2014	22/05/2014	4267	4473	4290	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 2	Round 4	Round 6	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9
Field	Alkalinity (total)	mg/L	5						-	-	-	-	-	290	-	47	-	480	-	410	-
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-	-	<0.005	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-	-	<0.005	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	µg/L	1						-	-	-	-	<5	<1	<1	<1	<1	<1	<1	<1	<1
	1,2,4,5-tetrachlorobenzene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	µg/L	1	**80**					-	-	-	-	<5	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dichlorobenzene	µg/L	1		**1500**			**1**	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3,5-Trichlorobenzene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	µg/L	1					**20**	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,4-dichlorobenzene	µg/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	-	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-chlorotoluene	µg/L	1						-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
	4-chlorotoluene	µg/L	1						-	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromobenzene	µg/L	1						-	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chlorobenzene	µg/L	0.01						-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Hexachlorobenzene	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Pentachlorobenzene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	µg/L	1		**1**				-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromomethane	µg/L	1		**1**				-	<1	<1	<1	<1	<10	<10	<10	<10	<10	<10	<10	<10
	Dichlorodifluoromethane	µg/L	1						-	<1	-	-	<1	<10	<10	<10	<10	<10	<10	<10	<10
	Iodomethane	µg/L	1						-	<1	<1	<1	<1	-	-	-	-	-	-	-	-
	Trichlorofluoromethane	µg/L	1						-	<1	<1	<1	<1	<10	<10	<10	<10	<10	<10	<10	<10
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/L	1						-	-	-	-	<10	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	µg/L	1						-	<10	-	-	<10	-	-	-	-	-	-	-	-
	2,4,6-trichlorophenol	µg/L	1		**20**			**2**	-	<10	-	-	<10	-	-	-	-	-	-	-	-
	2,4-dichlorophenol	µg/L	1		**200**			**0.3**	-	<3	-	-	<3	-	-	-	-	-	-	-	-
	2,6-dichlorophenol	µg/L	1						-	<3	-	-	<3	-	-	-	-	-	-	-	-
	2-chlorophenol	µg/L	1		**300**			**0.1**	-	<3	-	-	<3	-	-	-	-	-	-	-	-
	Pentachlorophenol	µg/L	5	**22**	**10**				-	<10	-	-	<10	-	-	-	-	-	-	-	-
	tetrachlorophenols	µg/L	30						-	<30	-	-	<30	-	-	-	-	-	-	-	-
Herbicides	Dinoseb	µg/L	100						-	<100	-	-	<100	-	-	-	-	-	-	-	-
	Pronamide	µg/L	5		**70**				-	-	-	-	<5	-	-	-	-	-	-	-	-
	Trifluralin	mg/L	0.005		**0.09**				-	-	-	-	<0.005	-	-	-	-	-	-	-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	92	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	<10	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Ammonia	mg/L	0.005						-	-	-	-	-	-	0.21	-	1.5	-	0.12	-	<0.005
	Ammonia as N	µg/L	10	**910**	**412**		**412(#18)**	**412**	-	<10	-	-	140	-	-	-	-	-	-	-	-
	Bicarbonate as CaCO3	mg/L	5						-	-	-	-	-	290	-	120	-	480	-	410	-
	Chloride	mg/L	1			**25-700(#17)**		**400(#4)**	-	14	-	-	-	**120**	-	22	-	**30**	-	**60**	-
	Cyanide Total	mg/L	0.004	**0.004**	**0.08**		**0.08(#18)**	**0.08**	-	<0.005	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/L	0.1		**1.5**	**1**	**2**	**15**	-	0.7	-	-	-	-	-	-	-	-	-	-	-
	Hydroxide	µg/L	5000						-	-	-	-	-	<5,000	-	<5,000	-	<5,000	-	<5,000	-
	Ionic Balance	%							-	-	-	-	-	-	-	-	-	-	-	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						-	-	-	-	<0.2	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/L	0.005	**7.2(#15)**	**11.286**	**5***	**90.293**	**112.866**	-	0.57	-	-	0.07	<0.005	0.023	0.017	<0.005	3.7	0.72	**24**	**27**
	Nitrate (as NO3-)	mg/L			**50**		**30**		-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/L	0.005	**0.06(#13)**	**0.912**	**3.04(#13)**	**9.119**	**9.119**	-	<0.02	-	-	<0.02	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	100						-	-	-	-	<200	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1		**6.5-8.5**	**6-8.5**	**6.5-8.5**	**6.5-8.5**	7.56	-	-	-	-	-	8.1	-	6.7	-	**6**	-	**6.2**
	Phosphate total (P)	mg/L	0.05						-	-	-	-	<0.05	-	-	-	-	-	-	-	-
	Sodium	mg/L	0.5			**115-460(#14)**		**300(#4)**	-	63	-	-	66	-	-	-	-	-	-	-	-
	Sulphate	mg/L	1		**500/250**	**1,000**	**1,000**	**400**	-	-	-	-	-	**330**	-	47	-	110	-	200	-
	Sulphate as S	mg/L	5						-	9.7	-	-	-	-	-	-	-	-	-	-	-
	TDS	mg/L	5					**600**	**1,070**	200	-	-	-	**640**	-	290	-	**1,100**	-	**960**	-
	TKN (as N)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/L	1						-	-	-	-	-	8	-	12	-	71	-	12	-
Lead	Lead	mg/L	0.001	**0.0044**	**0.01**	**2**	**0.1**	**0.1**	<0.001	0.001	-	-	0.003	-	<0.001	-	<0.001	-	<0.001	-	<0.001
MAH	1,2,4-trimethylbenzene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Isopropylbenzene	µg/L	1	**30(#10)**	**450(#9)**			**450(#9)**	-	<1	-	-	<1	-	-	-	-	-	-	-	-
	n-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	µg/L	1	**72(#13)**	**30/4**		**30/4(#18)**	**30/4**	-	<1	-	-	<1	-	-	-	-	-	-	-	-
	tert-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	SW06	SW06	SW07	SW08	SW08	Split (SW08)	Dup (SW08)	SW09	SW10	SW13	SW13	SW15	SW15
Sampled Date	3/07/2014	6/08/2014	6/08/2014	2/07/2014	4/08/2014	4/08/2014	4/08/2014	6/08/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG	4290	4495	4495	4273	4473	114196	4473	4495	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 9	Round 7	Round 9	Round 9	Round 9	Round 9	Round 9	Round 7	Round 9	Round 7	Round 9
Field	Alkalinity (total)	mg/L	5						100	-	-	52	-	-	-	-	-	46	-	170	-
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,2,4,5-tetrachlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	µg/L	1	**80**					<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,2-dichlorobenzene	µg/L	1		**1500**			**1**	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,3,5-Trichlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	µg/L	1					**20**	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	1,4-dichlorobenzene	µg/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-chlorotoluene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	4-chlorotoluene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Bromobenzene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Chlorobenzene	µg/L	0.01						<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Hexachlorobenzene	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	µg/L	1		**1**				<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1
	Bromomethane	µg/L	1		**1**				<10	<10	<10	<10	<10	-	-	<10	<10	<10	<10	<10	<10
	Dichlorodifluoromethane	µg/L	1						<10	<10	<10	<10	<10	-	-	<10	<10	<10	<10	<10	<10
	Iodomethane	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichlorofluoromethane	µg/L	1						<10	<10	<10	<10	<10	-	-	<10	<10	<10	<10	<10	<10
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,6-trichlorophenol	µg/L	1		**20**			**2**	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dichlorophenol	µg/L	1		**200**			**0.3**	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dichlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chlorophenol	µg/L	1		**300**			**0.1**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorophenol	µg/L	5	**22**	**10**				-	-	-	-	-	-	-	-	-	-	-	-	-
	tetrachlorophenols	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides	Dinoseb	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	µg/L	5		**70**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/L	0.005		**0.09**				-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Ammonia	mg/L	0.005						-	0.43	-	-	0.36	-	-	-	-	-	<0.005	-	<0.005
	Ammonia as N	µg/L	10	**910**	**412**		**412(#18)**	**412**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bicarbonate as CaCO3	mg/L	5						100	-	-	52	-	-	-	-	-	46	-	170	-
	Chloride	mg/L	1			**25-700(#17)**		**400(#4)**	**74**	-	-	**60**	-	-	-	-	-	**89**	-	**95**	-
	Cyanide Total	mg/L	0.004	**0.004**	**0.08**		**0.08(#18)**	**0.08**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/L	0.1		**1.5**	**1**	**2**	**15**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hydroxide	µg/L	5000						<5,000	-	-	<5,000	-	-	-	-	-	<5,000	-	<5,000	-
	Ionic Balance	%							-	-	-	-	-	-	-	-	-	-	-	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/L	0.005	**7.2(#15)**	**11.286**	**5***	**90.293**	**112.866**	**170**	**140**	-	**19**	**23**	-	-	-	-	**18**	**10**	**190**	**100**
	Nitrate (as NO3-)	mg/L			**50**		**30**		-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/L	0.005	**0.06(#13)**	**0.912**	**3.04(#13)**	**9.119**	**9.119**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (Lab)	pH Units	0.1		**6.5-8.5**	**6-8.5**	**6.5-8.5**	**6.5-8.5**	-	**6.2**	-	-	6.5	-	-	-	-	-	**5.2**	-	**5.8**
	Phosphate total (P)	mg/L	0.05						-	-	-	-	-	-	-	-	-	-	-	-	-
	Sodium	mg/L	0.5			**115-460(#14)**		**300(#4)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulphate	mg/L	1		**500/250**	**1,000**	**1,000**	**400**	**370**	-	-	**400**	-	-	-	-	-	150	-	**1,300**	-
	Sulphate as S	mg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	TDS	mg/L	5					**600**	**1,900**	-	-	**1,300**	-	-	-	-	-	**720**	-	**3,300**	-
	TKN (as N)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/L	1						18	-	-	56	-	-	-	-	-	70	-	50	-
Lead	Lead	mg/L	0.001	**0.0044**	**0.01**	**2**	**0.1**	**0.1**	-	<0.001	-	-	<0.001	<0.001	<0.001	-	-	-	<0.001	-	<0.001
MAH	1,2,4-trimethylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Isopropylbenzene	µg/L	1	**30(#10)**	**450(#9)**			**450(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	µg/L	1	**72(#13)**	**30/4**		**30/4(#18)**	**30/4**	-	-	-	-	-	-	-	-	-	-	-	-	-
	tert-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW9A	MW9A	MW9A	MW9A	MW9AR	MW09AR	MW09AR	SW01	SW01	SW02	SW02	SW05	SW05
Sampled Date	23/04/2012	4/09/2013	20/03/2014	11/04/2014	22/05/2014	1/07/2014	4/08/2014	3/07/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG		4/09/2013	20/03/2014	11/04/2014	22/05/2014	4267	4473	4290	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 2	Round 4	Round 6	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9
Metals	Aluminium	mg/L	0.05			**5**	**5**	**0.2**	-	**1.4**	-	-	**0.98**	-	<0.01	-	-	-	-	-	-
	Antimony	mg/L	0.001		**0.003**				-	<0.005	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/L	0.001	**0.003(#7)**	**0.01**	**0.1**	**0.5**	**0.1**	0.002	**0.004**	-	-	0.002	-	0.001	-	0.002	-	0.002	-	**0.005**
	Barium	mg/L	0.001	**0.625(#6)**	**2**		**2(#18)**	**20**	0.002	<0.02	-	-	<0.02	-	0.043	-	-	-	-	-	-
	Beryllium	mg/L	0.0005	**0.00013(#10)**	**0.06**	**0.1**	**0.06(#18)**	**0.6**	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/L	0.005	**5.1(#10)**	**4**	**0.5**	**5**	**40(#11)**	-	<0.05	-	-	-	-	0.084	-	-	-	-	-	-
	Cadmium	mg/L	0.0001	**0.0055**	**0.002**	**0.01**	**0.01**	**0.02**	0.0001	<0.0002	-	-	<0.0002	-	<0.0001	-	<0.0001	-	0.0002	-	<0.0001
	Calcium	mg/L	0.5				**1000**		-	1.2	-	-	-	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/L	0.001	**0.0044**	**0.05**		**0.05(#18)**	**0.5**	-	<0.001	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/L	0.001	**0.005(#7)**	**0.05**	**0.1**	**1**	**0.5**	<0.001	0.003	-	-	<0.001	-	<0.001	-	<0.001	-	0.002	-	<0.001
	Chromium (Trivalent)	mg/L		**0.0274**					-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt	mg/L	0.001	**0.001**	**0.06(#9)**	**0.05**	**1**	**0.06(#9)**	0.001	<0.001	-	-	<0.001	-	**0.002**	-	-	-	-	-	-
	Copper	mg/L	0.001	**0.0013**	**2/1(#)**	**0.2**	**0.4**	**20/1(#)**	**0.024**	**0.015**	-	-	**0.005**	-	**0.002**	-	0.001	-	**0.012**	-	**0.002**
	Iron	mg/L	0.01	**0.3(#10)**	**0.3(#)**	**0.2**		**0.3**	-	**1.5**	-	-	**0.33**	**0.36**	0.018	**1.4**	-	0.19	-	0.019	-
	Magnesium	mg/L	0.5						-	0.7	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/L	0.005	**0.08(#10)**	**0.5/0.1(#)**	**0.2**		**5/0.1(#)**	0.014	<0.005	-	-	-	**0.45**	**0.67**	0.071	-	0.072	-	0.006	-
	Mercury	mg/L	0.00005	**0.0004**	**0.01(#4)**	**0.002**	**0.002**	**0.01(#4)**	<0.0001	<0.0001	-	-	<0.0001	-	-	-	<0.00005	-	<0.00005	-	<0.00005
	Molybdenum	mg/L	0.001	**0.023(#10)**	**0.05**	**0.01**	**0.015**	**0.05**	-	**0.017**	-	-	-	-	0.002	-	-	-	-	-	-
	Nickel	mg/L	0.001	**0.07**	**0.02**	**1**	**1**	**0.2**	0.01	0.005	-	-	0.009	-	0.015	-	0.015	-	**0.18**	-	**0.069**
	Phosphorus	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Potassium	mg/L	0.5						-	0.8	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/L	0.001	**0.003(#10)**	**0.01**	**0.02**	**0.02**	**0.1**	-	<0.001	-	-	<0.001	-	<0.001	-	-	-	-	-	-
	Silver	mg/L	0.001	**0.0014**	**0.1**				-	<0.005	-	-	-	-	-	-	-	-	-	-	-
	Thallium	mg/L	0.001						-	<0.001	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/L	0.001	**0.01(#10)**	**12(#9)**		**12(#9)**	**12(#9)**	-	<0.005	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/L	0.001	**0.1**	**0.086(#9)**	**0.1**	**0.1**	**0.086(#9)**	0.01	0.013	-	-	-	-	<0.001	-	-	-	-	-	-
	Zinc	mg/L	0.001	**0.005(#7)**	**3**	**0.02**	**20**	**3**	**0.015**	0.003	-	-	**0.014**	-	**0.011**	-	**0.008**	-	**0.055**	-	**0.038**
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	µg/L	5		**30**				-	-	-	-	<5	-	-	-	-	-	-	-	-
Organic	Methane	mg/L	0.005						-	-	-	-	-	0.098	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	a-BHC	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Aldrin	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin	µg/L			**0.3**				-	<0.2	-	-	<10	-	-	-	-	-	-	-	-
	b-BHC	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	chlordane	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	DDD	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	DDT	µg/L	0.1		**9**				-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	DDT+DDE+DDD	µg/L							-	<0.3	-	-	<15	-	-	-	-	-	-	-	-
	Dieldrin	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Endosulfan I	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Endosulfan II	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Endosulfan sulphate	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Endrin	µg/L	0.1	**0.008**					-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Endrin aldehyde	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Endrin ketone	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	g-BHC (Lindane)	µg/L	0.1		**10**				-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Heptachlor	µg/L	0.1		**0.3**				-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Heptachlor epoxide	µg/L	0.1						-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Methoxychlor	µg/L	0.1		**300**				-	<0.1	-	-	<5	-	-	-	-	-	-	-	-
	Toxaphene	mg/L	0.01						-	<0.01	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		**30**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Bolstar (Sulprofos)	µg/L	2		**10**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Chlorfenvinphos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	µg/L	2	**0.009**	**10**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Demeton-O	µg/L	2						-	-	-	-	<2	-	-	-	-	-	-	-	-
	Diazinon	µg/L	2		**4**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Dichlorvos	µg/L	2		**5**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Dimethoate	µg/L			**7**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Disulfoton	µg/L	2		**4**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Ethion	µg/L	2		**4**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Ethoprop	µg/L	2		**1**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Fenitrothion	µg/L	2		**7**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Fensulfothion	µg/L	2		**10**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Fenthion	µg/L	2		**7**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Malathion	µg/L			**70**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Merphos	mg/L	0.002						-	-	-	-	<0.002	-	-	-	-	-	-	-	-
	Methyl parathion	µg/L	2		**0.7**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Mevinphos (Phosdrin)	µg/L	2		**5**				-	-	-	-	<2	-	-	-	-	-	-	-	-
	Naled (Dibrom)	µg/L	2						-	-	-	-	<2	-	-	-	-	-	-	-	-
	Phorate	µg/L	2						-	-	-	-	<2	-	-	-	-	-	-	-	-
	Prothiofos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Ronnel	µg/L	2						-	-	-	-	<2	-	-	-	-	-	-	-	-
	Trichloronate	µg/L	2						-	-	-	-	<2	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	SW06	SW06	SW07	SW08	SW08	Split (SW08)	Dup (SW08)	SW09	SW10	SW13	SW13	SW15	SW15
Sampled Date	3/07/2014	6/08/2014	6/08/2014	2/07/2014	4/08/2014	4/08/2014	4/08/2014	6/08/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG	4290	4495	4495	4273	4473	114196	4473	4495	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 9	Round 7	Round 9	Round 9	Round 9	Round 9	Round 9	Round 7	Round 9	Round 7	Round 9
Metals	Aluminium	mg/L	0.05			**5**	**5**	**0.2**	-	-	-	-	0.064	0.06	0.056	-	-	-	-	-	-
	Antimony	mg/L	0.001		**0.003**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/L	0.001	**0.003(#7)**	**0.01**	**0.1**	**0.5**	**0.1**	-	**0.005**	-	-	**0.004**	0.003	**0.004**	-	-	-	0.001	-	0.003
	Barium	mg/L	0.001	**0.625(#6)**	**2**		**2(#18)**	**20**	-	-	-	-	0.071	0.073	0.071	-	-	-	-	-	-
	Beryllium	mg/L	0.0005	**0.00013(#10)**	**0.06**	**0.1**	**0.06(#18)**	**0.6**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/L	0.005	**5.1(#10)**	**4**	**0.5**	**5**	**40(#11)**	-	-	-	-	0.052	0.06	0.05	-	-	-	-	-	-
	Cadmium	mg/L	0.0001	**0.0055**	**0.002**	**0.01**	**0.01**	**0.02**	-	<0.0001	-	-	<0.0001	<0.0001	<0.0001	-	-	-	<0.0001	-	<0.0001
	Calcium	mg/L	0.5				**1000**		-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/L	0.001	**0.0044**	**0.05**		**0.05(#18)**	**0.5**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/L	0.001	**0.005(#7)**	**0.05**	**0.1**	**1**	**0.5**	-	<0.001	-	-	<0.001	<0.001	<0.001	-	-	-	<0.001	-	<0.001
	Chromium (Trivalent)	mg/L		**0.0274**					-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt	mg/L	0.001	**0.001**	**0.06(#9)**	**0.05**	**1**	**0.06(#9)**	-	-	-	-	**0.002**	**0.002**	**0.002**	-	-	-	-	-	-
	Copper	mg/L	0.001	**0.0013**	**2/1(#)**	**0.2**	**0.4**	**20/1(#)**	-	**0.006**	-	-	**0.008**	**0.007**	**0.007**	-	-	-	**0.003**	-	**0.003**
	Iron	mg/L	0.01	**0.3(#10)**	**0.3(#)**	**0.2**		**0.3**	0.031	-	-	0.098	0.15	0.14	0.14	-	-	**0.22**	-	**0.021**	-
	Magnesium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/L	0.005	**0.08(#10)**	**0.5/0.1(#)**	**0.2**		**5/0.1(#)**	0.014	-	-	0.027	0.073	0.068	0.066	-	-	**0.82**	-	0.036	-
	Mercury	mg/L	0.00005	**0.0004**	**0.01(#4)**	**0.002**	**0.002**	**0.01(#4)**	-	<0.00005	-	-	-	-	-	-	-	-	<0.00005	-	<0.00005
	Molybdenum	mg/L	0.001	**0.023(#10)**	**0.05**	**0.01**	**0.015**	**0.05**	-	-	-	-	**0.04**	**0.041**	**0.04**	-	-	-	-	-	-
	Nickel	mg/L	0.001	**0.07**	**0.02**	**1**	**1**	**0.2**	-	**0.066**	-	-	**0.05**	**0.047**	**0.041**	-	-	-	**0.075**	-	**0.083**
	Phosphorus	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Potassium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/L	0.001	**0.003(#10)**	**0.01**	**0.02**	**0.02**	**0.1**	-	-	-	-	0.002	0.002	0.002	-	-	-	-	-	-
	Silver	mg/L	0.001	**0.0014**	**0.1**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Thallium	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/L	0.001	**0.01(#10)**	**12(#9)**		**12(#9)**	**12(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/L	0.001	**0.1**	**0.086(#9)**	**0.1**	**0.1**	**0.086(#9)**	-	-	-	-	0.002	0.002	0.002	-	-	-	-	-	-
	Zinc	mg/L	0.001	**0.005(#7)**	**3**	**0.02**	**20**	**3**	-	**0.047**	-	-	**0.049**	**0.048**	**0.044**	-	-	-	**0.073**	-	**0.079**
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	µg/L	5		**30**				-	-	-	-	-	-	-	-	-	-	-	-	-
Organic	Methane	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	a-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin	µg/L			**0.3**				-	-	-	-	-	-	-	-	-	-	-	-	-
	b-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	chlordane	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	DDD	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	DDT	µg/L	0.1		**9**				-	-	-	-	-	-	-	-	-	-	-	-	-
	DDT+DDE+DDD	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Dieldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan I	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan II	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan sulphate	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin	µg/L	0.1	**0.008**					-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin ketone	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	g-BHC (Lindane)	µg/L	0.1		**10**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor	µg/L	0.1		**0.3**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Methoxychlor	µg/L	0.1		**300**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Toxaphene	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		**30**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Bolstar (Sulprofos)	µg/L	2		**10**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorfenvinphos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	µg/L	2	**0.009**	**10**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Demeton-O	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	µg/L	2		**4**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	µg/L	2		**5**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	µg/L			**7**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Disulfoton	µg/L	2		**4**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	µg/L	2		**4**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethoprop	µg/L	2		**1**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenitrothion	µg/L	2		**7**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Fensulfothion	µg/L	2		**10**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	µg/L	2		**7**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	µg/L			**70**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Merphos	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl parathion	µg/L	2		**0.7**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Mevinphos (Phosdrin)	µg/L	2		**5**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Naled (Dibrom)	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Phorate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Ronnel	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloronate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW9A	MW9A	MW9A	MW9A	MW9AR	MW09AR	MW09AR	SW01	SW01	SW02	SW02	SW05	SW05
Sampled Date	23/04/2012	4/09/2013	20/03/2014	11/04/2014	22/05/2014	1/07/2014	4/08/2014	3/07/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG		4/09/2013	20/03/2014	11/04/2014	22/05/2014	4267	4473	4290	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 2	Round 4	Round 6	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	<0.001	-	-	<0.001	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	µg/L	1	2(#10)	360(#9)		360(#9)	360(#9)	-	<3	-	-	<3	-	-	-	-	-	-	-	-
	2,4-dinitrophenol	mg/L	0.01						-	<0.03	-	-	<0.03	-	-	-	-	-	-	-	-
	2-chloronaphthalene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	2-methylnaphthalene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	-	<3	-	-	<3	-	-	-	-	-	-	-	-
	2-nitrophenol	µg/L	1						-	<10	-	-	<10	-	-	-	-	-	-	-	-
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	-	<6	-	-	<6	-	-	-	-	-	-	-	-
	3-methylcholanthrene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	µg/L	10						-	<30	-	-	<30	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	µg/L	1						-	<10	-	-	<10	-	-	-	-	-	-	-	-
	4-methylphenol	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	µg/L	10						-	<30	-	-	<30	-	-	-	-	-	-	-	-
	Acenaphthene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Acenaphthylene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Acetophenone	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Anthracene	µg/L	1	0.4(#10)					-	<5	-	-	<1	-	-	-	-	-	-	-	-
	Benz(a)anthracene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	<2.42	-	-	<2.42	-	-	-	-	-	-	-	-
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Benzo(k)fluoranthene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Chrysene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Dibenz(a,h)anthracene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	-	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1
	PAHs (Sum of total)	µg/L	1		0.01				-	<5	-	-	<1	-	-	-	-	-	-	-	-
	Phenanthrene	µg/L	1	2(#10)					-	<5	-	-	<1	-	-	-	-	-	-	-	-
	Phenol	µg/L	1	400					-	<3	-	-	<3	-	-	-	-	-	-	-	-
	Pyrene	µg/L	1						-	<5	-	-	<1	-	-	-	-	-	-	-	-
Pesticides	Chlorobenzilate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methacrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	µg/L			0.5				-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	<100	-	-	<100	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/L	0.01						-	<0.01	-	-	<0.01	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/L	0.1						-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				-	<5	-	-	<5	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	µg/L	5						-	<5	-	-	<5	-	-	-	-	-	-	-	-
	Diethylphthalate	µg/L	5						-	<5	-	-	<5	-	-	-	-	-	-	-	-
	Dimethyl phthalate	µg/L	5						-	<5	-	-	<5	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	µg/L	5						-	<5	-	-	<5	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	µg/L	5						-	<5	-	-	<5	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	<1	-	-	-	-	-	-	<2	-	-	-	-
	Arochlor 1221	µg/L	1						-	<1	-	-	-	-	-	-	<2	-	-	-	-
	Arochlor 1232	µg/L	1						-	<1	-	-	-	-	-	-	<2	-	-	-	-
	Arochlor 1242	µg/L	1						-	<1	-	-	-	-	-	-	<2	-	-	-	-
	Arochlor 1248	µg/L	1						-	<1	-	-	-	-	-	-	<2	-	-	-	-
	Arochlor 1254	µg/L	1						-	<1	-	-	-	-	-	-	<2	-	-	-	-
	Arochlor 1260	µg/L	1						-	<1	-	-	-	-	-	-	<2	-	-	-	-
	PCBs (Sum of total)	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/L	0.5						-	-	-	-	<0.5	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	µg/L	1						-	<1	-	-	<1	-	-	-	-	-	-	-	-
	Acetone	mg/L	0.001						-	<0.001	-	-	<0.001	-	-	-	-	-	-	-	-
	Acrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/L	0.001						-	<0.001	-	-	<0.001	-	-	-	-	-	-	-	-
	Carbon disulfide	µg/L	1						-	<1	-	-	<1	<1	-	<1	-	<1	-	<1	-
	Cyclohexane	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Isophorone	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	MTBE	mg/L	0.001						-	-	-	-	<0.001	-	-	-	-	-	-	-	-
	Vinyl acetate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	SW06	SW06	SW07	SW08	SW08	Split (SW08)	Dup (SW08)	SW09	SW10	SW13	SW13	SW15	SW15
Sampled Date	3/07/2014	6/08/2014	6/08/2014	2/07/2014	4/08/2014	4/08/2014	4/08/2014	6/08/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG	4290	4495	4495	4273	4473	114196	4473	4495	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 9	Round 7	Round 9	Round 9	Round 9	Round 9	Round 9	Round 7	Round 9	Round 7	Round 9
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	µg/L	1	**2(#10)**	**360(#9)**		**360(#9)**	**360(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dinitrophenol	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	µg/L	1		**930(#9)**		**930(#9)**	**930(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-nitrophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	3-&4-methylphenol	µg/L	6		**930(#9)**		**930(#9)**	**930(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-methylcholanthrene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	µg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-methylphenol	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	µg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	µg/L	1	**5.8(#13)**	**530(#9)**		**530(#9)**	**530(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthylene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetophenone	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Anthracene	µg/L	1	**0.4(#10)**					-	-	-	-	-	-	-	-	-	-	-	-	-
	Benz(a)anthracene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(a) pyrene	µg/L	1	**0.2(#10)**	**0.01**		**0.01(#18)**	**0.01**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(k)fluoranthene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Chrysene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,h)anthracene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoranthene	µg/L	1	**1.4(#10)**	**800(#9)**		**800(#9)**	**800(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluorene	µg/L	1	**3(#13)**	**290(#9)**		**290(#9)**	**290(#9)**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Naphthalene	µg/L	1	**70**	**1.7(#9)**		**1.7(#9)**	**1.7(#9)**	<1	<1	-	<1	<1	-	<1	-	-	<1	<1	<1	<1
	PAHs (Sum of total)	µg/L	1		**0.01**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenanthrene	µg/L	1	**2(#10)**					-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenol	µg/L	1	**400**					-	-	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides	Chlorobenzilate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methacrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	µg/L			**0.5**				-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		**10**				-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	-	-	-	-	-	-	-	-	-	<2	-	-
	Arochlor 1221	µg/L	1						-	-	-	-	-	-	-	-	-	-	<2	-	-
	Arochlor 1232	µg/L	1						-	-	-	-	-	-	-	-	-	-	<2	-	-
	Arochlor 1242	µg/L	1						-	-	-	-	-	-	-	-	-	-	<2	-	-
	Arochlor 1248	µg/L	1						-	-	-	-	-	-	-	-	-	-	<2	-	-
	Arochlor 1254	µg/L	1						-	-	-	-	-	-	-	-	-	-	<2	-	-
	Arochlor 1260	µg/L	1						-	-	-	-	-	-	-	-	-	-	<2	-	-
	PCBs (Sum of total)	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetone	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Acrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	µg/L	1						<1	-	-	<1	-	-	-	-	-	<1	-	<1	-
	Cyclohexane	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Isophorone	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	MTBE	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW9A	MW9A	MW9A	MW9A	MW9AR	MW09AR	MW09AR	SW01	SW01	SW02	SW02	SW05	SW05
Sampled Date	23/04/2012	4/09/2013	20/03/2014	11/04/2014	22/05/2014	1/07/2014	4/08/2014	3/07/2014	6/08/2014	2/07/2014	6/08/2014	3/07/2014	6/08/2014
SDG		4/09/2013	20/03/2014	11/04/2014	22/05/2014	4267	4473	4290	4495	4273	4495	4290	4495

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 2	Round 4	Round 6	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9	Round 7	Round 9
SVOCs	2-(acetylamino) fluorene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Carbazole	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Coronene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/L	0.005						-	-	-	-	<0.005	-	-	-	-	-	-	-	-
	Dibenzofuran	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	Hexachloropropene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	µg/L	5						-	-	-	-	<5	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Perylene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/L	0.05						<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						-	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					**0.3(#19)**	**0.03**	**0.02**	<0.02	<0.02	**0.13**	**0.099**	**0.54**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOCs	cis-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-	-	<0.001	-	-	-	-	-	-	-	-
	Ethyl methacrylate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	µg/L	1000						-	-	-	-	<1,000	-	-	-	-	-	-	-	-
	Pentachloroethane	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes	mg/L			**0.25**				-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

1:00 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2:00 ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3:00 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4:00 ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5:00 Australian Standard AS2159-2009 Piling Design and Installation.
6:00 Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7:00 SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8:00 NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10. # denotes aesthetic criteria. Unless otherwise specified.
9:00 US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10:00 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
11:00 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12:00 US EPA (2003) Region 5 Ecological Screening Levels.
13:00 CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14:00 ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15:00 NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16:00 NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17:00 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18:00 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A3:
Groundwater Results - Shallow Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID														
Sampled Date														
SDG														

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	SW06 Round 7	SW06 Round 9	SW07 Round 9	SW08 Round 7	SW08 Round 9	Split (SW08) Round 9	Dup (SW08) Round 9	SW09 Round 9	SW10 Round 9	SW13 Round 7	SW13 Round 9	SW15 Round 7	SW15 Round 9
	2-(acetylamino) fluorene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Coronene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Perylene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/L	0.05						<0.05	<0.05	-	<0.05	**0.16**	<0.05	**0.13**	-	-	<0.05	<0.05	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	-	**0.3**	**1.6**	<0.1	**1.4**	-	-	<0.1	<0.1	**0.13**	**1.5**
	C34-C40	mg/L	0.1						<0.1	<0.1	-	<0.1	**0.34**	<0.1	**0.31**	-	-	<0.1	<0.1	<0.1	**0.32**
	F2-NAPHTHALENE	mg/L	0.05						-	-	-	-	-	-	-	-	-	-	-	-	-
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	-	**0.3**	**2.1**	<0.1	**1.84**	-	-	<0.1	<0.1	**0.13**	**1.82**
	C6-C10	mg/L	0.01					**0.3(#19)**	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01
VOCs	cis-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl methacrylate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes	mg/L			**0.25**				-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

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17:00 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18:00 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW1	MW1	DUP (MW1)	split (MW1)	MW1	MW01	MW01	MW2	MW2	MW02	Dup (MW02)	Split (MW02)	MW2	MW02	MW02	MW3	MW3
Sampled Date	23/04/2012	4/09/2013	4/09/2013	4/09/2013	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	27/03/2014	27/03/2014	27/03/2014	21/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013
SDG	Alliance	4/09/2013	4/09/2013	2485	22/05/2014	4273	4517	Alliance	4/09/2013	3608	3608	107343	21/05/2014	4273	4517	Alliance	4/09/2013

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 1	Round 1	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 3	Round 3	Round 3	Round 6	Round 7	Round 9	Alliance Round	Round 1
	Heptachlor (including its epoxide)	mg/L							<0.004	<0.0002	<0.0002	<0.0004	-	-	-	<0.004	<0.0002	-	-	-	-	-	-	<0.004	<0.0002
	Tokuthion	mg/L	0.002							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Trihalomethanes (ADW 2004)	mg/L							0.00025	<0.008	<0.008	<0.004	<0.008	<0.004	<0.004	<0.0004	<0.008	<0.004	<0.004	<0.004	<0.008	<0.004	0.0075	<0.0004	<0.008
	Acetaldehyde	ug/L	30							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Butyl Acrylate	mg/L	0.25							-	-	-	<0.25	-	-		-	-	-	-	<0.25	-	-		-
	Carbonate as CaCO3	mg/L	5							-	-	<5	-	<5	-		-	-	-	-	-	<5	-		-
	Ethyl acrylate	ug/L	1000							-	-	-	<1,000	-	-		-	-	-	-	<1,000	-	-		-
	Formaldehyde	mg/L	0.1		**0.5**		**0.5(#18)**	**0.5**	**0.2**	<0.2	<0.2	-	<0.2	-	-	**0.3**	<0.2	<0.1	-	-	<0.2	-	-	<0.1	<0.2
	Methyl acrylate	ug/L	1000							-	-	-	<1,000	-	-		-	-	-	-	<1,000	-	-		-
	Nitrogen (Organic)	mg/L	0.2							-	-	-	0.9	-	-		-	-	-	-	<0.2	-	-		-
	N-Nitrosodiphenyl & Diphenylamine	ug/L							<4	-	-	-	-	-	-	<4	-	-	-	-	-	-	-	<4	-
	Vinyl chloride (SIM)	mg/L	0.00005							-	-	-	<0.00005	-	-		-	-	-	-	<0.00005	-	-		-
Amino Aliphatics	N-nitrosodiethylamine	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	N-nitrosodi-n-butylamine	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	N-nitrosodi-n-propylamine	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	N-Nitrosomethylethylamine	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
Amino Aromatics	1-naphthylamine	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	2-naphthylamine	ug/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Diphenylamine	ug/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
Anilines	2-nitroaniline	ug/L	5						<4	-	-	-	-	-	-	<4	-	-	-	-	-	-	-	<4	-
	3-nitroaniline	ug/L							<4	-	-	-	-	-	-	<4	-	-	-	-	-	-	-	<4	-
	4-chloroaniline	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	4-nitroaniline	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	2-methyl-5-nitroaniline	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Aniline	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
BTEX	Benzene	ug/L	1	**700**	**1**		**1(#18)**	**1**	<0.05	<1	<1	<1	<1	<1	<1	<0.05	<1	-	-	-	<1	<1	<1	<0.05	<1
	Ethylbenzene	ug/L	1	**4(#10)**	**300/3(#)**		**300/3(#)**	**300/3(#)**	<0.05	<1	<1	<1	<1	<1	<1	<0.05	<1	-	-	-	<1	<1	<1	<0.05	<1
	Toluene	ug/L	1	**180(#10)**	**800/25(#)**		**800/25(#)**	**800/25(#)**	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	-	-	-	<1	<1	<1	<0.5	<1
	Xylene (m & p)	ug/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<0.05	<2	<2	<2	<2	<2	<2	<0.05	<2	-	-	-	<2	<2	<2	<0.05	<2
	Xylene (o)	ug/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<0.05	<1	<1	<1	<1	<1	<1	<0.05	<1	-	-	-	<1	<1	<1	<0.05	<1
	Xylene Total	ug/L	3		**600/20(#)**		**600/20(#)**	**600/20(#)**	<0.1	<3	<3	<3	<3	<3	<3	<0.1	<3	-	-	-	<3	<3	<3	<0.1	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						-	<0.02	<0.02	<0.01	<0.02	<0.01	<0.01	-	<0.02	-	-	-	<0.02	<0.01	<0.01	-	<0.02
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	ug/L	1						<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	1,1,1-trichloroethane	ug/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<0.1	<1	<1	<1	<1	<0.5	<0.5	<0.1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.1	<1
	1,1,2,2-tetrachloroethane	ug/L	1						<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	1,1,2-trichloroethane	ug/L	1	**1900**					<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	1,1-dichloroethane	ug/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(9#)**	<0.1	<1	<1	<1	0.07	<0.5	<0.5	**5.8**	**7**	**5**	**5**	**6**	**6.7**	<0.5	**6**	<0.1	<1
	1,1-dichloroethene	ug/L	0.5	**700(#10)**	**30**		**30**	**30**	<0.1	<1	<1	<1	<1	<0.5	<0.5	**0.7**	<1	<1	<1	<1	**1**	<0.5	**0.9**	<0.1	<1
	1,1-dichloropropene	ug/L	1						<5	-	-	<1	-	<1	<1	<5	-	<1	<1	<1	-	<1	<1	<5	-
	1,2,3-trichloropropane	ug/L	1						<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	1,2-dibromo-3-chloropropane	ug/L	1						<5	-	-	<1	-	<1	<1	<5	-	<1	<1	<1	-	<1	<1	<5	-
	1,2-dichloroethane	ug/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<0.1	<1	<1	<1	<0.01	<0.5	<0.5	<0.1	<1	<1	<1	<1	<0.01	<0.5	<0.5	<0.1	<1
	1,2-dichloropropane	ug/L	1						<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	1,3-dichloropropane	ug/L	1						<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	2,2-dichloropropane	ug/L	1						<5	-	-	<1	-	<1	<1	<5	-	<1	<1	<1	-	<1	<1	<5	-
	Benzyl chloride	mg/L	0.005						<0.0002	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-	-	<0.0002	-
	Bromochloromethane	ug/L	1						<0.5	<1	<1	<1	-	<1	<1	<0.5	<1	<1	<1	<1	-	<1	<1	<0.5	<1
	Bromodichloromethane	ug/L	1						<0.1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1
	Bromoform	ug/L	1						<0.1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1
	Carbon tetrachloride	ug/L	1						<0.05	<1	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<1	<0.05	<1
	Chlorodibromomethane	ug/L	1						<0.1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1
	Chloroethane	ug/L	1						<0.5	<1	<1	<10	-	<10	<10	<0.5	<1	<10	<10	<10	-	<10	<10	<0.5	<1
	Chloroform	ug/L	1	**370**	**250**		**250**	**250**	0.1	<5	<5	<1	<5	<1	<1	<0.1	<5	<1	<1	<1	<5	<1	<1	<0.1	<5
	Chloromethane	ug/L	1						<50	<1	<1	<10	<1	<10	<10	<50	<1	<10	<10	<10	<1	<10	<10	<50	<1
	cis-1,2-dichloroethene	ug/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	<0.1	<1	<1	<1	<0.01	<0.5	<0.5	<0.1	<1	<1	<1	<1	**0.02**	<0.5	<0.5	<0.1	<1
	cis-1,3-dichloropropene	ug/L	1						<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	Dibromomethane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	ug/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	<0.04	<1	<1	-	<0.02	-	-	<0.04	<1	-	-	-	<0.02	-	-	<0.04	<1
	Hexachlorobutadiene	ug/L	1		**0.7**				<10	-	-	<1	-	<1	<1	<10	-	<1	<1	<1	-	<1	<1	<10	-
	Hexachlorocyclopentadiene	ug/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Hexachloroethane	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Trichloroethene	ug/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#4)/4.9(#9)**	<0.05	<1	<1	<1	<0.01	<0.5	<0.5	<0.05	<1	<1	<1	<1	<0.01	<0.5	<0.5	<0.05	<1
	Tetrachloroethene	ug/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	<0.05	<1	<1	<1	**0.03**	<0.5	<0.5	<0.05	<1	<1	<1	<1	<0.02	<0.5	<0.5	<0.05	<1
	trans-1,2-dichloroethene	ug/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	<0.1	<1	<1	<1	<1	<0.5	<0.5	<0.1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.1	<1
	trans-1,3-dichloropropene	ug/L	1						<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	Vinyl chloride	ug/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	<0.5	<1	<1	<10	-	<0.3	<0.3	<0.5	<1	<10	<10	<10	<1	<0.3	<0.3	<0.5	<1
Explosives	1,3,5-Trinitrobenzene	mg/L							<0.002	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	<0.002	-
	2,4-Dinitrotoluene	ug/L	5						<4	-	-	-	-	-	-	<4	-	-	-	-	-	-	-	<4	-
	2,6-dinitrotoluene	ug/L	5						<4	-	-	-	-	-	-	<4	-	-	-	-	-	-	-	<4	-
	Nitrobenzene	ug/L	50						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
Field	Alkalinity (total)	mg/L	5							-	-	200	-	210	-		-	-	-	-	-	280	-		-
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	1,2,3-trichlorobenzene	ug/L	1						<0.1	-	-	<1	-	<1	<1	<0.1	-	<1	<1	<1	-	<1	<1	<0.1	-
	1,2,4,5-tetrachlorobenzene	ug/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	1,2,4-trichlorobenzene	ug/L	1	**80**					<2	-	-	<1	-	<1	<1	<2	-	<1	<1	<1	-	<1	<1	<2	-
	1,2-dichlorobenzene	ug/L	1		**1500**			**1**	<2	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1
	1,3,5-Trichlorobenzene	ug/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	1,3-dichlorobenzene	ug/L	1					**20**	<2	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1
	1,4-dichlorobenzene	ug/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<2	<1	<1	<1	<0.01	<0.5	<0.5	<2	<1	<1	<1	<1	**0.14**	<0.5	<0.5	<2	<1
	2-chlorotoluene	ug/L	1						<0.1	-	-	<1	-	<1	<1	<0.1	-	<1	<1	<1	-	<1	<1	<0.1	-
	4-chlorotoluene	ug/L	1						<0.1	<1	<1	<1	-	<1	<1	<0.1	<1	<1	<1	<1	-	<1	<1	<0.1	<1
	Bromobenzene	ug/L	1						<0.1	<1	<1	<1	-	<1	<1	<0.1	<1	<1	<1	<1	-	<1	<1	<0.1	<1
	Chlorobenzene	ug/L	0.01						<0.1	<1	<1	<1	<0.01	<1	<1	<0.1	<1	<1	<1	<1	0.06	<1	<1	<0.1	<1
	Hexachlorobenzene	ug/L	0.1						<4	<0.1	<0.1	<0.2	-	-	-	<4	<0.1	-	-	-	-	-	-	<4	<0.1
	Pentachlorobenzene	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
Halogenated Hydrocarbons	1,2-dibromoethane	ug/L	1		**1**				<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<5	<1
	Bromomethane	ug/L	1		**1**				<2	<1	<1	<10	<1	<10	<10	<2	<1	<10	<10	<10	<1	<10	<10	<2	<1
	Dichlorodifluoromethane	ug/L	1						<0.5	<1	<1	<10	-	<10	<10	<0.5	<1	<10	<10	<10	-	<10	<10	<0.5	<1
	Iodomethane	ug/L	1						<5	<1	<1	<1	<1	-	-	<5	<1	-	-	-	<1	-	-	<5	<1
	Trichlorofluoromethane	ug/L	1						<0.5	<1	<1	<10	<1	<10	<10	<0.5	<1	<10	<10	<10	<1	<10	<10	<0.5	<1
Halogenated Phenols	2,3,4,6-tetrachlorophenol	ug/L	1							-	-	<1	-	-	-		-	-	-	-	-	-	-		-
	2,4,5-trichlorophenol	ug/L	1						<2	<10	<10	<1	-	-	-	<2	<10	-	-	-	-	-	-	<2	<10
	2,4,6-trichlorophenol	ug/L	1		**20**			**2**	<2	<10	<10	<1	-	-	-	<2	<10	-	-	-	-	-	-	<2	<10
	2,4-dichlorophenol	ug/L	1		**200**			**0.3**	<2	<3	<3	<1	-	-	-	<2	<3	-	-	-	-	-	-	<2	<3
	2,6-dichlorophenol	ug/L	1						<2	<3	<3	<1	-	-	-	<2	<3	-	-	-	-	-	-	<2	<3
	2-chlorophenol	ug/L	1		**300**			**0.1**	<2	<3	<3	<1	-	-	-	<2	<3	-	-	-	-	-	-	<2	<3
	Pentachlorophenol	ug/L	5	**22**	**10**				<4	<10	<10	<5	-	-	-	<4	<10	-	-	-	-	-	-	<4	<10
	tetrachlorophenols	ug/L	30							<30	<30	-	-	-	-		<30	-	-	-	-	-	-		<30

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW3	MW03	MW03	MW4	MW4	MW4	MW4	MW04	MW5	MW5	MW5	MW05	MW6	MW6	MW06	MW7	MW7	MW7
Sampled Date	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	4/06/2014	4/06/2014	2/07/2014	23/04/2012	4/09/2013	21/05/2014	4/07/2014	23/04/2012	22/05/2014	2/07/2014	23/04/2012	4/09/2013	22/05/2014
SDG	22/05/2014	4273	4517	Alliance	4/09/2013	4116	5/06/2014	4273	Alliance	4/09/2013	21/05/2014	4293	Alliance	22/05/2014	4273	Alliance	4/09/2013	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 6	Round 7	Alliance Round	Round 6	Round 7	Alliance Round	Round 1	Round 6
	Heptachlor (including its epoxide)	mg/L							-	-	-	<0.004	<0.0002	-	<0.01	-	<0.004	<0.0002	-	-	<0.004	-	-	<0.004	<0.0002	-
	Tokuthion	mg/L	0.002						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Trihalomethanes (ADW 2004)	mg/L							<0.008	<0.004	<0.004	<0.0004	<0.008	-	<0.008	<0.004	<0.0004	<0.008	<0.008	<0.004	<0.0004	<0.008	<0.004	0.00027	<0.008	<0.008
	Acetaldehyde	µg/L	30						-	-	-		-	<30	-	-		-	-	-		-	-		-	-
	Butyl Acrylate	mg/L	0.25						<0.25	-	-		-	-	<0.25	-		-	<0.25	-		<0.25	-		-	<0.25
	Carbonate as CaCO3	mg/L	5						-	<5	-		-	-	-	<5		-	-	<5		-	<5		-	-
	Ethyl acrylate	µg/L	1000						<1,000	-	-		-	-	<1,000	-		-	<1,000	-		<1,000	-		-	<1,000
	Formaldehyde	mg/L	0.1		**0.5**		**0.5(#18)**	**0.5**	<0.2	-	-	**0.3**	<0.2	-	<0.2	-	**0.1**	<0.2	<0.2	-	<0.1	<0.2	-	**0.1**	<0.2	<0.2
	Methyl acrylate	µg/L	1000						<1,000	-	-		-	-	<1,000	-		-	<1,000	-		<1,000	-		-	<1,000
	Nitrogen (Organic)	mg/L	0.2						1.5	-	-		-	-	<0.2	-		-	<0.2	-		0.7	-		-	1.5
	N-Nitrosodiphenyl & Diphenylamine	µg/L							-	-	-	<4	-	-	-	-	<4	-	-	-	<4	-	-	<4	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						<0.00005	-	-		-	-	<0.00005	-		-	<0.00005	-		<0.00005	-		-	<0.00005
Amino Aliphatics	N-nitrosodiethylamine	µg/L	5						-	-	-	<2	-	<5	-	-	<2	-	-	-	<2	-	-	<2	-	-
	N-nitrosodi-n-butylamine	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	N-nitrosodi-n-propylamine	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	N-Nitrosomethylethylamine	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
Amino Aromatics	1-naphthylamine	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	2-naphthylamine	µg/L	5						-	-	-		-	-	<5	-		-	-	-		-	-		-	-
	Diphenylamine	µg/L	5						-	-	-		-	-	<5	-		-	-	-		-	-		-	-
Anilines	2-nitroaniline	µg/L	5						-	-	-	<4	-	-	<5	-	<4	-	-	-	<4	-	-	<4	-	-
	3-nitroaniline	µg/L							-	-	-	<4	-	-	-	-	<4	-	-	-	<4	-	-	<4	-	-
	4-chloroaniline	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	4-nitroaniline	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	2-methyl-5-nitroaniline	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Aniline	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
BTEX	Benzene	µg/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	<1	<0.05	<1	-	<1	<1	<0.05	<1	<1	<1	<0.05	<1	<1	<0.05	<1	<1
	Ethylbenzene	µg/L	1	**4(#10)**	**300/3(#)**		**300/3(#)**	**300/3(#)**	<1	<1	<1	<0.05	<1	-	<1	<1	<0.05	<1	<1	<1	<0.05	<1	<1	<0.05	<1	<1
	Toluene	µg/L	1	**180(#10)**	**800/25(#)**		**800/25(#)**	**800/25(#)**	<1	<1	<1	<0.5	<1	-	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<1
	Xylene (m & p)	µg/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	<2	<0.05	<2	-	<2	<2	<0.05	<2	<2	<2	<0.05	<2	<2	**0.06**	<2	<2
	Xylene (o)	µg/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<1	<1	<1	<0.05	<1	-	<1	<1	<0.05	<1	<1	<1	<0.05	<1	<1	**0.06**	<1	<1
	Xylene Total	µg/L	3		**600/20(#)**		**600/20(#)**	**600/20(#)**	<3	<3	<3	<0.1	<3	-	<3	<3	<0.1	<3	<3	<3	<0.1	<3	<3	**0.12**	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						<0.02	<0.01	<0.01	-	<0.02	-	<0.02	<0.01	-	<0.02	<0.02	<0.01	-	<0.02	<0.01	-	<0.02	<0.02
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	µg/L	1						<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	1,1,1-trichloroethane	µg/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<1	<0.5	<0.5	<0.1	<1	-	<1	<0.5	<0.1	<1	<1	<0.5	<0.1	<1	<0.5	<0.1	<1	<1
	1,1,2,2-tetrachloroethane	µg/L	1						<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	1,1,2-trichloroethane	µg/L	1	**1900**					<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	1,1-dichloroethane	µg/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(9#)**	**0.1**	<0.5	<0.5	<0.1	<1	-	**<1 - 0.01**	<0.5	<0.1	<1	<0.01	<0.5	<0.1	**0.06**	<0.5	<0.1	<1	**0.02**
	1,1-dichloroethene	µg/L	0.5	**700(#10)**	**30**		**30**	**30**	<1	<0.5	<0.5	<0.1	<1	-	<1	<0.5	<0.1	<1	<1	<0.5	<0.1	<1	<0.5	<0.1	<1	<1
	1,1-dichloropropene	µg/L	1						-	<1	<1	<5	-	-	-	<1	<5	-	-	<1	<5	-	<1	<5	-	-
	1,2,3-trichloropropane	µg/L	1						<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	1,2-dibromo-3-chloropropane	µg/L	1						-	<1	<1	<5	-	-	-	<1	<5	-	-	<1	<5	-	<1	<5	-	-
	1,2-dichloroethane	µg/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<0.01	<0.5	<0.5	<0.1	<1	-	<0.01	<0.5	<0.1	<1	<0.01	<0.5	<0.1	<0.01	<0.5	<0.1	<1	<0.01
	1,2-dichloropropane	µg/L	1						<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	1,3-dichloropropane	µg/L	1						<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	2,2-dichloropropane	µg/L	1						-	<1	<1	<5	-	-	-	<1	<5	-	-	<1	<5	-	<1	<5	-	-
	Benzyl chloride	mg/L	0.005						-	-	-	<0.0002	-	-	<0.005	-	<0.0002	-	-	-	<0.0002	-	-	<0.0002	-	-
	Bromochloromethane	µg/L	1						-	<1	<1	<0.5	<1	-	<1	<1	<0.5	<1	<1	<1	<0.5	-	<1	<0.5	<1	-
	Bromodichloromethane	µg/L	1						<1	<1	<1	<0.1	<1	-	<1	<1	<0.1	<1	<1	<1	<0.1	<1	<1	<0.1	<1	<1
	Bromoform	µg/L	1						<1	<1	<1	<0.1	<1	-	<1	<1	<0.1	<1	<1	<1	<0.1	<1	<1	<0.1	<1	<1
	Carbon tetrachloride	µg/L	1						<1	<1	<1	<0.05	<1	-	<1	<1	<0.05	<1	<1	<1	<0.05	<1	<1	<0.05	<1	<1
	Chlorodibromomethane	µg/L	1						<1	<1	<1	<0.1	<1	-	<1	<1	<0.1	<1	<1	<1	<0.1	<1	<1	<0.1	<1	<1
	Chloroethane	µg/L	1						-	<10	<10	<0.5	<1	-	<1	<10	<0.5	<1	<1	<10	<0.5	-	<10	<0.5	<1	-
	Chloroform	µg/L	1	**370**	**250**		**250**	**250**	<5	<1	<1	<0.1	<5	-	<5	<1	<0.1	<5	<5	<1	<0.1	<5	<1	**0.12**	<5	<5
	Chloromethane	µg/L	1						<1	<10	<10	<50	<1	-	<1	<10	<50	<1	<1	<10	<50	<1	<10	<50	<1	<1
	cis-1,2-dichloroethene	µg/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	<0.01	<0.5	<0.5	<0.1	<1	-	<0.01	<0.5	<0.1	<1	<0.01	<0.5	<0.1	<0.01	<0.5	<0.1	<1	<0.01
	cis-1,3-dichloropropene	µg/L	1						<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	Dibromomethane	µg/L	1						<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	µg/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	<0.02	-	-	<0.04	<1	-	<0.02	-	<0.04	<1	<0.02	-	<0.04	<0.02	-	<0.04	<1	<0.02
	Hexachlorobutadiene	µg/L	1		**0.7**				-	<1	<1	<10	-	-	<5	<1	<10	-	-	<1	<10	-	<1	<10	-	-
	Hexachlorocyclopentadiene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	Trichloroethene	µg/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#4)/4.9(#9)**	<0.01	<0.5	<0.5	<0.05	<1	-	<0.01	<0.5	<0.05	<1	<0.01	<0.5	<0.05	<0.01	<0.5	<0.05	<1	<0.01
	Tetrachloroethene	µg/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	<0.02	<0.5	<0.5	<0.05	<1	-	<0.02	<0.5	<0.05	<1	<0.02	<0.5	<0.05	<0.02	<0.5	<0.05	<1	<0.02
	trans-1,2-dichloroethene	µg/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	<1	<0.5	<0.5	<0.1	<1	-	<1	<0.5	<0.1	<1	<1	<0.5	<0.1	<1	<0.5	<0.1	<1	<1
	trans-1,3-dichloropropene	µg/L	1						<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	Vinyl chloride	µg/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	-	<0.3	<0.3	<0.5	<1	-	<1	<0.3	<0.5	<1	<1	<0.3	<0.5	-	<0.3	<0.5	<1	-
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	<0.002	-	-	-	-	<0.002	-	-	-	<0.002	-	-	<0.002	-	-
	2,4-Dinitrotoluene	µg/L	5						-	-	-	<4	-	-	<5	-	<4	-	-	-	<4	-	-	<4	-	-
	2,6-dinitrotoluene	µg/L	5						-	-	-	<4	-	-	<5	-	<4	-	-	-	<4	-	-	<4	-	-
	Nitrobenzene	µg/L	50						-	-	-	<2	-	-	<50	-	<2	-	-	-	<2	-	-	<2	-	-
Field	Alkalinity (total)	mg/L	5						-	380	-		-	-	-	130		-	-	170		-	390		-	-
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-		-	-	<0.005	-		-	-	-		-	-		-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-		-	-	<0.005	-		-	-	-		-	-		-	-
	1,2,3-trichlorobenzene	µg/L	1						-	<1	<1	<0.1	-	-	<5	<1	<0.1	-	-	<1	<0.1	-	<1	<0.1	-	-
	1,2,4,5-tetrachlorobenzene	µg/L	5						-	-	-		-	-	<5	-		-	-	-		-	-		-	-
	1,2,4-trichlorobenzene	µg/L	1	**80**					-	<1	<1	<2	-	-	<5	<1	<2	-	-	<1	<2	-	<1	<2	-	-
	1,2-dichlorobenzene	µg/L	1		**1500**			**1**	<1	<1	<1	<2	<1	-	<1	<1	<2	<1	<1	<1	<2	<1	<1	<2	<1	<1
	1,3,5-Trichlorobenzene	µg/L	5						-	-	-		-	-	<5	-		-	-	-		-	-		-	-
	1,3-dichlorobenzene	µg/L	1					**20**	<1	<1	<1	<2	<1	-	<1	<1	<2	<1	<1	<1	<2	<1	<1	<2	<1	<1
	1,4-dichlorobenzene	µg/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<0.01	<0.5	<0.5	<2	<1	-	<0.01	<0.5	<2	<1	<0.01	<0.5	<2	<0.01	<0.5	<2	<1	<0.01
	2-chlorotoluene	µg/L	1						-	<1	<1	<0.1	-	-	-	<1	<0.1	-	-	<1	<0.1	-	<1	<0.1	-	-
	4-chlorotoluene	µg/L	1						-	<1	<1	<0.1	<1	-	<1	<1	<0.1	<1	-	<1	<0.1	-	<1	<0.1	<1	-
	Bromobenzene	µg/L	1						-	<1	<1	<0.1	<1	-	<1	<1	<0.1	<1	-	<1	<0.1	-	<1	<0.1	<1	-
	Chlorobenzene	µg/L	0.01						<0.01	<1	<1	<0.1	<1	-	<0.01	<1	<0.1	<1	<0.01	<1	<0.1	<0.01	<1	<0.1	<1	<0.01
	Hexachlorobenzene	µg/L	0.1						-	-	-	<4	<0.1	-	<5	-	<4	<0.1	-	-	<4	-	-	<4	<0.1	-
	Pentachlorobenzene	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	µg/L	1		**1**				<1	<1	<1	<5	<1	-	<1	<1	<5	<1	<1	<1	<5	<1	<1	<5	<1	<1
	Bromomethane	µg/L	1		**1**				<1	<10	<10	<2	<1	-	<1	<10	<2	<1	<1	<10	<2	<1	<10	<2	<1	<1
	Dichlorodifluoromethane	µg/L	1						-	<10	<10	<0.5	<1	-	<1	<10	<0.5	<1	-	<10	<0.5	-	<10	<0.5	<1	-
	Iodomethane	µg/L	1						<1	-	-	<5	<1	-	<1	-	<5	<1	<1	-	<5	<1	-	<5	<1	<1
	Trichlorofluoromethane	µg/L	1						<1	<10	<10	<0.5	<1	-	<1	<10	<0.5	<1	<1	<10	<0.5	<1	<10	<0.5	<1	<1
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/L	1						-	-	-		-	-	<10	-		-	-	-		-	-		-	-
	2,4,5-trichlorophenol	µg/L	1						-	-	-	<2	<10	-	<10	-	<2	<10	-	-	<2	-	-	<2	<10	-
	2,4,6-trichlorophenol	µg/L	1		**20**			**2**	-	-	-	<2	<10	-	<10	-	<2	<10	-	-	<2	-	-	<2	<10	-
	2,4-dichlorophenol	µg/L	1		**200**			**0.3**	-	-	-	<2	<3	-	<3	-	<2	<3	-	-	<2	-	-	<2	<3	-
	2,6-dichlorophenol	µg/L	1						-	-	-	<2	<3	-	<3	-	<2	<3	-	-	<2	-	-	<2	<3	-
	2-chlorophenol	µg/L	1		**300**			**0.1**	-	-	-	<2	<3	-	<3	-	<2	<3	-	-	<2	-	-	<2	<3	-
	Pentachlorophenol	µg/L	5	**22**	**10**				-	-	-	<4	<10	-	<10	-	<4	<10	-	-	<4	-	-	<4	<10	-
	tetrachlorophenols	µg/L	30						-	-	-		<30	-	-	-		<30	-	-		-	-		<30	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	DUP (MW07)	Split (MW07)	MW07	MW8	MW8	MW08	MW8	MW8	MW08	MW08	MW9	MW9	MW9	DUP (MW09)	Split (MW9)	MW9	MW9
Sampled Date	22/05/2014	22/05/2014	3/07/2014	23/04/2012	4/09/2013	27/03/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	24/04/2012	4/09/2013	20/03/2014	20/03/2014	20/03/2014	11/04/2014	22/05/2014
SDG	22/05/2014	4021	4290	Alliance	4/09/2013	3608	11/04/2014	22/05/2014	4273	4517	Alliance	4/09/2013	20/03/2014	20/03/2014	3549	11/04/2014	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 3	Round 4	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 2	Round 2	Round 2	Round 4	Round 6
	Heptachlor (including its epoxide)	mg/L							-	-	-	<0.004	<0.0002	-	-	-	-	-	<0.004	<0.0002	-	-	-	-	-
	Tokuthion	mg/L	0.002						-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/L							<0.008	<0.004	<0.004	0.00144	<0.008	<0.004	<0.008	<0.008	0.0035	0.0045	0.00031	<0.008	<0.008	<0.008	<0.004	<0.008	<0.008
	Acetaldehyde	ug/L	30						-	<30	-		-	-	-	-	-	-		-	-	-	-	-	-
	Butyl Acrylate	mg/L	0.25						<0.25	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Carbonate as CaCO3	mg/L	5						-	-	<5		-	-	-	-	<5	-		-	-	-	-	-	-
	Ethyl acrylate	ug/L	1000						<1,000	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Formaldehyde	mg/L	0.1		**0.5**		**0.5(#18)**	**0.5**	<0.2	<0.1	-	**0.1**	<0.2	<0.1	<0.2	<0.2	-	-	**0.6**	<0.2	<0.2	<0.2	<0.1	**0.4**	<0.2
	Methyl acrylate	ug/L	1000						<1,000	<5,000	-		-	-	-	-	-	-		-	-	-	-	-	-
	Nitrogen (Organic)	mg/L	0.2						0.5	-	-		-	-	-	<0.2	-	-		-	-	-	-	-	0.5
	N-Nitrosodiphenyl & Diphenylamine	ug/L							-	-	-	<4	-	-	-	-	-	-	<4	-	-	-	-	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						<0.00005	-	-		-	-	-	<0.00005	-	-		-	-	-	-	-	**0.0004**
Amino Aliphatics	N-nitrosodiethylamine	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	N-Nitrosomethylethylamine	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	2-naphthylamine	ug/L	5						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Diphenylamine	ug/L	5						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
Anilines	2-nitroaniline	ug/L	5						-	-	-	<4	-	-	-	-	-	-	<4	-	-	-	-	-	-
	3-nitroaniline	ug/L							-	-	-	<4	-	-	-	-	-	-	<4	-	-	-	-	-	-
	4-chloroaniline	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	4-nitroaniline	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	2-methyl-5-nitroaniline	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Aniline	ug/L	5						<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<2	-	-	-	-	-	-
BTEX	Benzene	ug/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	<1	<0.05	<1	-	<1	<1	<1	<1	**0.32**	<1	<1	<1	<1	<1	<1
	Ethylbenzene	ug/L	1	**4(#10)**	**300/3(#)**		**300/3(#)**	**300/3(#)**	<1	<1	<1	<0.05	<1	-	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1
	Toluene	ug/L	1	**180(#10)**	**800/25(#)**		**800/25(#)**	**800/25(#)**	<1	<1	<1	<0.5	<1	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1
	Xylene (m & p)	ug/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	<2	<0.05	<2	-	<2	<2	<2	<2	**0.06**	<2	<2	<2	<2	<2	<2
	Xylene (o)	ug/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<1	<1	<1	<0.05	<1	-	<1	<1	<1	<1	**0.15**	<1	<1	<1	<1	<1	<1
	Xylene Total	ug/L	3		**600/20(#)**		**600/20(#)**	**600/20(#)**	<3	<3	<3	<0.1	<3	-	<3	<3	<3	<3	**0.21**	<3	<3	<3	<3	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						<0.02	<0.01	<0.01	-	<0.02	-	<0.02	<0.02	<0.01	<0.01	-	0.02	<0.02	<0.02	0.012	0.03	<0.02
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	ug/L	1						<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	1,1,1-trichloroethane	ug/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<1	<1	<0.5	<0.1	<1	<1	<1	<1	<0.5	<0.5	<0.1	<1	<1	<1	<1	<1	<1
	1,1,2,2-tetrachloroethane	ug/L	1						<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	1,1,2-trichloroethane	ug/L	1	**1900**					<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	1,1-dichloroethane	ug/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(9#)**	**0.01**	<1	<0.5	<0.1	<1	<1	<1	**0.1**	<0.5	<0.5	<0.1	<1	<1	<1	<1	<1	**0.05**
	1,1-dichloroethene	ug/L	0.5	**700(#10)**	**30**		**30**	**30**	<1	<1	<0.5	<0.1	<1	<1	<1	<1	<0.5	<0.5	**0.6**	<1	<1	<1	<1	**1**	**1**
	1,1-dichloropropene	ug/L	1						-	<1	<1	<5	-	<1	-	-	<1	<1	<5	-	-	-	<1	-	-
	1,2,3-trichloropropane	ug/L	1						<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	1,2-dibromo-3-chloropropane	ug/L	1						-	<1	<1	<5	-	<1	-	-	<1	<1	<5	-	-	-	<1	-	-
	1,2-dichloroethane	ug/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<0.01	<1	<0.5	**2**	<1	<1	<1	**0.04**	**0.9**	<0.5	<0.1	<1	<1	<1	<1	<1	<0.01
	1,2-dichloropropane	ug/L	1						<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	1,3-dichloropropane	ug/L	1						<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	2,2-dichloropropane	ug/L	1						-	<1	<1	<5	-	<1	-	-	<1	<1	<5	-	-	-	<1	-	-
	Benzyl chloride	mg/L	0.005						-	-	-	<0.0002	-	-	-	-	-	-	<0.0002	-	-	-	-	-	-
	Bromochloromethane	ug/L	1						-	<1	<1	<0.5	<1	<1	-	-	<1	<1	<0.5	<1	-	-	<1	-	-
	Bromodichloromethane	ug/L	1						<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1
	Bromoform	ug/L	1						<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1
	Carbon tetrachloride	ug/L	1						<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	<0.05	<1	<1	<1	<1	<1	<1
	Chlorodibromomethane	ug/L	1						<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1
	Chloroethane	ug/L	1						-	<10	<10	<0.5	<1	<10	-	-	<10	<10	<0.5	<1	-	-	<10	-	-
	Chloroform	ug/L	1	**370**	**250**		**250**	**250**	<5	<1	<1	**1.29**	<5	<1	<5	<5	**2**	**3**	**0.16**	<5	<5	<5	<1	<5	<5
	Chloromethane	ug/L	1						<1	<10	<10	<50	<1	<10	<1	<1	<10	<10	<50	<1	<1	<1	<10	<1	<1
	cis-1,2-dichloroethene	ug/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	<0.01	<1	<0.5	**0.8**	<1	**1**	<1	**0.86**	<0.5	**0.5**	**7.1**	**8**	**6**	**6**	**9**	**11**	**10**
	cis-1,3-dichloropropene	ug/L	1						<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	Dibromomethane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	ug/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	<0.02	-	-	<0.04	<1	-	<1	<0.02	-	-	<0.04	<1	<1	<1	-	<1	<0.02
	Hexachlorobutadiene	ug/L	1		**0.7**				-	<1	<1	<10	-	<1	-	-	<1	<1	<10	-	-	-	<1	-	-
	Hexachlorocyclopentadiene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Trichloroethene	ug/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#4)/4.9(#9)**	<0.01	<1	<0.5	**0.84**	<1	**2**	<1	**1.3**	**1**	**1**	**20.5**	**13**	**7**	**7**	**9**	**10**	**8.9**
	Tetrachloroethene	ug/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	<0.02	<1	<0.5	**0.53**	**3**	**4**	**3**	**2.5**	**3**	**4**	**10.1**	**10**	**4**	**4**	**5**	**5**	**5**
	trans-1,2-dichloroethene	ug/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	<1	<1	<0.5	<0.1	<1	<1	<1	<1	<0.5	<0.5	**0.4**	<1	**1**	**1**	**2**	**2**	**2**
	trans-1,3-dichloropropene	ug/L	1						<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	Vinyl chloride	ug/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	-	<10	<0.3	<0.5	<1	<10	<1	-	<0.3	<0.3	<0.5	<1	<1	<1	<10	<1	-
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	<0.002	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
	2,4-Dinitrotoluene	ug/L	5						-	-	-	<4	-	-	-	-	-	-	<4	-	-	-	-	-	-
	2,6-dinitrotoluene	ug/L	5						-	-	-	<4	-	-	-	-	-	-	<4	-	-	-	-	-	-
	Nitrobenzene	ug/L	50						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
Field	Alkalinity (total)	mg/L	5						-	-	150		-	-	-	-	330	-		-	-	-	-	-	-
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	1,2,3-trichlorobenzene	ug/L	1						-	<1	<1	<0.1	-	<1	-	-	<1	<1	<0.1	-	-	-	<1	-	-
	1,2,4,5-tetrachlorobenzene	ug/L	5						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	1,2,4-trichlorobenzene	ug/L	1	**80**					-	<1	<1	<2	-	<1	-	-	<1	<1	<2	-	-	-	<1	-	-
	1,2-dichlorobenzene	ug/L	1		**1500**			**1**	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1
	1,3,5-Trichlorobenzene	ug/L	5						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	1,3-dichlorobenzene	ug/L	1					**20**	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1	<1
	1,4-dichlorobenzene	ug/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<0.01	<1	<0.5	<2	<1	<1	<1	<0.01	<0.5	<0.5	<2	<1	<1	<1	<1	<1	**0.01**
	2-chlorotoluene	ug/L	1						-	<1	<1	<0.1	-	<1	-	-	<1	<1	<0.1	-	-	-	<1	-	-
	4-chlorotoluene	ug/L	1						-	<1	<1	<0.1	<1	<1	-	-	<1	<1	<0.1	<1	-	-	<1	-	-
	Bromobenzene	ug/L	1						-	<1	<1	<0.1	<1	<1	-	-	<1	<1	<0.1	<1	-	-	<1	-	-
	Chlorobenzene	ug/L	0.01						<0.01	<1	<1	<0.1	<1	<1	<1	<0.01	<1	<1	<0.1	<1	<1	<1	<1	<1	<0.01
	Hexachlorobenzene	ug/L	0.1						-	-	-	<4	<0.1	-	-	-	-	-	<4	<0.1	-	-	-	-	-
	Pentachlorobenzene	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	ug/L	1		**1**				<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	Bromomethane	ug/L	1		**1**				<1	<10	<10	<2	<1	<10	<1	<1	<10	<10	<2	<1	<1	<1	<10	<1	<1
	Dichlorodifluoromethane	ug/L	1						-	<10	<10	<0.5	<1	<10	-	-	<10	<10	<0.5	<1	-	-	<10	-	-
	Iodomethane	ug/L	1						<1			<5	<1		<1	<1			<5	<1	<1	<1		<1	<1
	Trichlorofluoromethane	ug/L	1						<1	<10	<10	<0.5	<1	<10	<1	<1	<10	<10	<0.5	<1	<1	<1	<10	<1	<1
Halogenated Phenols	2,3,4,6-tetrachlorophenol	ug/L	1						-	-	-				-	-	-	-		-	-	-	-	-	-
	2,4,5-trichlorophenol	ug/L	1						-	-	-	<2	<10	-	-	-	-	-	<2	<10	-	-	-	-	<10
	2,4,6-trichlorophenol	ug/L	1		**20**			**2**	-	-	-	<2	<10	-	-	-	-	-	<2	<10	-	-	-	-	<10
	2,4-dichlorophenol	ug/L	1		**200**			**0.3**	-	-	-	<2	<3	-	-	-	-	-	<2	<3	-	-	-	-	<3
	2,6-dichlorophenol	ug/L	1						-	-	-	<2	<3	-	-	-	-	-	<2	<3	-	-	-	-	<3
	2-chlorophenol	ug/L	1		**300**			**0.1**	-	-	-	<2	<3	-	-	-	-	-	<2	<3	-	-	-	-	<3
	Pentachlorophenol	ug/L	5	**22**	**10**				-	-	-	<4	<10	-	-	-	-	-	<4	<10	-	-	-	-	<10
	tetrachlorophenols	ug/L	30						-	-	-		<30	-	-	-	-	-		<30	-	-	-	-	<30

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW09	MW9-9.0	MW9-9.75	MW9-11.0	MW09	MW10	MW10	MW10	MW10	MW11	MW11	MW11	MW11	MW12	DUP (MW12)	MW12	MW12	Dup 1 (MW12)
Sampled Date	1/07/2014	16/07/2014	16/07/2014	16/07/2014	12/08/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	11/04/2014	22/05/2014	1/07/2014	12/08/2014	11/04/2014	11/04/2014	22/05/2014	1/07/2014	1/07/2014
SDG	4267	4375	4375	4375	4517	11/04/2014	22/05/2014	4273	4517	11/04/2014	22/05/2014	4267	4517	11/04/2014	11/04/2014	22/05/2014	4267	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 8	Round 8	Round 8	Round 9	Round 4	Round 6	Round 7	Round 9	Round 4	Round 6	Round 7	Round 9	Round 4	Round 4	Round 6	Round 7	Round 7
	Heptachlor (including its epoxide)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-
	Tokuthion	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-
	Trihalomethanes (ADW 2004)	mg/L							<0.004	<0.004	<0.004	<0.004	<0.004	0.0175	0.0225	0.0145	0.0225	<0.008	<0.008	<0.004	<0.004	<0.008	<0.008	<0.008	<0.004	<0.004
	Acetaldehyde	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/L	0.25						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	-	-
	Carbonate as CaCO3	mg/L	5						<5	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	<5	<5
	Ethyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1,000	-	-
	Formaldehyde	mg/L	0.1		**0.5**		**0.5(#18)**	**0.5**	-	-	-	-	<0.1	<0.2	<0.2	-	-	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	-	-
	Methyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1,000	-	-
	Nitrogen (Organic)	mg/L	0.2						-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	-	0.3	-	-
	N-Nitrosodiphenyl & Diphenylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						-	-	-	-	-	-	**0.00008**	-	-	-	<0.00005	-	-	-	<0.00005	-	-
Amino Aliphatics	N-nitrosodiethylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	N-nitrosodi-n-propylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	N-Nitrosomethylethylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	2-naphthylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Diphenylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
Anilines	2-nitroaniline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	3-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
BTEX	Benzene	µg/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ethylbenzene	µg/L	1	**4(#10)**	**300/3(#)**		**300/3(#)**	**300/3(#)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	1	**180(#10)**	**800/25(#)**		**800/25(#)**	**800/25(#)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene (m & p)	µg/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene Total	µg/L	3		**600/20(#)**		**600/20(#)**	**600/20(#)**	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.02	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,1-trichloroethane	µg/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<0.5	<1	<1	<1	<0.5	<1	<1	<0.5	<0.5	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<0.5
	1,1,2,2-tetrachloroethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,2-trichloroethane	µg/L	1	**1900**					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1-dichloroethane	µg/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(9#)**	<0.5	<1	<1	<1	<0.5	<1	**0.24**	<0.5	<0.5	<1	**0.03**	<0.5	<0.5	<1	<1	**<1 - 0.01**	<0.5	<0.5
	1,1-dichloroethene	µg/L	0.5	**700(#10)**	**30**		**30**	**30**	<1	<1	<1	<1	**1**	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<1	<1	<1	<1	<1
	1,1-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	-	<1	<1
	1,2,3-trichloropropane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dibromo-3-chloropropane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	-	<1	<1
	1,2-dichloroethane	µg/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<0.5	<1	<1	<1	<0.5	<1	**0.2**	**0.8**	<0.5	<1	<0.01	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5
	1,2-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,2-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	-	<1	<1
	Benzyl chloride	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-
	Bromochloromethane	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	<1	<1	<1
	Bromodichloromethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromoform	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbon tetrachloride	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chlorodibromomethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chloroethane	µg/L	1						<10	<10	<10	<10	<10	-	-	<10	<10	-	-	<10	<10	-	-	<1	<10	<10
	Chloroform	µg/L	1	**370**	**250**		**250**	**250**	<1	<1	<1	<1	<1	**16**	**21**	**13**	**21**	<5	<5	<1	<1	<5	<5	<5	<1	<1
	Chloromethane	µg/L	1						<10	<10	<10	<10	<10	<1	<1	<10	<10	<1	<1	<10	<10	<1	<1	<1	<10	<10
	cis-1,2-dichloroethene	µg/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	**10**	**8**	**7**	**7**	**13**	**7**	**2.3**	**6**	**2**	<1	**0.03**	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5
	cis-1,3-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibromomethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	µg/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	-	-	-	-	-	<1	<0.02	-	-	<1	<0.02	-	-	<1	<1	<0.02	-	-
	Hexachlorobutadiene	µg/L	1		**0.7**				<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	<5	<1	<1
	Hexachlorocyclopentadiene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Hexachloroethane	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Trichloroethene	µg/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#4)/4.9(#9)**	**9**	**5**	**5**	**4**	**7**	**1**	**0.65**	**1**	**0.7**	<1	**0.26**	<0.5	<0.5	<1	<1	**<1 - 0.05**	<0.5	<0.5
	Tetrachloroethene	µg/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	**5**	**2**	**1**	<1	**1**	<1	**0.27**	<0.5	<0.5	<1	**0.93**	**1**	**0.8**	<1	<1	**<1 - 0.04**	<0.5	<0.5
	trans-1,2-dichloroethene	µg/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	**2**	**1**	**1**	**1**	**2**	<1	<1	<0.5	<0.5	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<0.5
	trans-1,3-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Vinyl chloride	µg/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	<10	<10	<10	<10	<0.3	<1	-	<0.3	<0.3	<1	-	<10	<0.3	<1	<1	<1	<10	<10
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	2,6-dinitrotoluene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-
	Nitrobenzene	µg/L	50						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	-	-	-
Field	Alkalinity (total)	mg/L	5						<5	-	-	-	-	-	-	250	-	-	-	18	-	-	-	-	590	600
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-
	1,2,3-trichlorobenzene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	<5	<1	<1
	1,2,4,5-tetrachlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	1,2,4-trichlorobenzene	µg/L	1	**80**					<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	<5	<1	<1
	1,2-dichlorobenzene	µg/L	1		**1500**			**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3,5-Trichlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	1,3-dichlorobenzene	µg/L	1					**20**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,4-dichlorobenzene	µg/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<0.5	<1	<1	<1	<0.5	<1	<0.01	<0.5	<0.5	<1	<0.01	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5
	2-chlorotoluene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	-	<1	<1
	4-chlorotoluene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	<1	<1	<1
	Bromobenzene	µg/L	1						<1	<1	<1	<1	<1	-	-	<1	<1	-	-	<1	<1	-	-	<1	<1	<1
	Chlorobenzene	µg/L	0.01						<1	<1	<1	<1	<1	<1	<0.01	<1	<1	<1	<0.01	<1	<1	<1	<1	<0.01	<1	<1
	Hexachlorobenzene	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Pentachlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	µg/L	1		**1**				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromomethane	µg/L	1		**1**				<10	<10	<10	<10	<10	<5	<1	<10	<10	<1	<1	<10	<10	<1	<1	<1	<10	<10
	Dichlorodifluoromethane	µg/L	1						<10	<10	<10	<10	<10	-	-	<10	<10	-	-	<10	<10	-	-	<1	<10	<10
	Iodomethane	µg/L	1						-	-	-	-	-	<1	<1	-	-	<1	<1	-	-	<1	<1	<1	-	-
	Trichlorofluoromethane	µg/L	1						<10	<10	<10	<10	<10	<1	<1	<10	<10	<1	<1	<10	<10	<1	<1	<1	<10	<10
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-
	2,4,5-trichlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-
	2,4,6-trichlorophenol	µg/L	1		**20**			**2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-
	2,4-dichlorophenol	µg/L	1		**200**			**0.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-
	2,6-dichlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-
	2-chlorophenol	µg/L	1		**300**			**0.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-
	Pentachlorophenol	µg/L	5	**22**	**10**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-
	tetrachlorophenols	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	Split 1 (MW12)	MW12	MW13	MW13	DUP (MW13)	Split (MW13)	MW13	MW13	MW13-9.9	MW13-10.65	MW13-11.35	MW13	MW14	MW14	MW14	MW15	MW15
Sampled Date	1/07/2014	12/08/2014	11/04/2014	24/04/2014	24/04/2014	24/04/2014	22/05/2014	2/07/2014	16/07/2014	16/07/2014	16/07/2014	6/08/2014	21/05/2014	3/07/2014	13/08/2014	21/05/2014	3/07/2014
SDG	152602	4517	11/04/2014	24/04/2014	24/04/2014	3794	22/05/2014	4273	4375	4375	4375	4495	21/05/2014	4290	4517	21/05/2014	4290

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 4	Round 5	Round 5	Round 5	Round 6	Round 7	Round 8	Round 8	Round 8	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
	Heptachlor (including its epoxide)	mg/L							-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-
	Tokuthion	mg/L	0.002						-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/L							<0.004	<0.004	<0.008	<0.08	<0.08	<0.004	<0.008	<0.004	<0.004	<0.004	<0.004	<0.004	<0.008	<0.004	<0.004	<0.008	<0.004
	Acetaldehyde	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/L	0.25						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbonate as CaCO3	mg/L	5						<5	-	-	-	-	-	-	<5	-	-	-	-	-	<5	-	-	<5
	Ethyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/L	0.1		**0.5**		**0.5(#18)**	**0.5**	-	-	<0.2	-	-	-	<0.2	-	-	-	-	-	<0.2	-	-	<0.2	-
	Methyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Organic)	mg/L	0.2						-	-	-	-	-	-	<0.2	-	-	-	-	-	0.9	-	-	0.9	-
	N-Nitrosodiphenyl & Diphenylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						-	-	-	-	-	-	**0.0031**	-	-	-	-	-	<0.00005	-	-	<0.00005	-
Amino Aliphatics	N-nitrosodiethylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	µg/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ethylbenzene	µg/L	1	**4(#10)**	**300/3(#)**		**300/3(#)**	**300/3(#)**	<1	<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	1	**180(#10)**	**800/25(#)**		**800/25(#)**	**800/25(#)**	<1	<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene (m & p)	µg/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	<2	-	-	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<1	<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene Total	µg/L	3		**600/20(#)**		**600/20(#)**	**600/20(#)**	<3	<3	<3	-	-	-	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						<0.01	<0.01	<0.4	-	-	-	<0.8	**0.013**	<0.01	<0.01	<0.01	**0.016**	<0.02	<0.01	<0.01	<0.02	<0.01
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,1-trichloroethane	µg/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<1	<0.5	**3**	<20	<20	**3**	**2**	**1**	**1**	**2**	**1**	**2**	<1	<0.5	<0.5	<1	<0.5
	1,1,2,2-tetrachloroethane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,2-trichloroethane	µg/L	1	**1900**					<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1-dichloroethane	µg/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(9#)**	<1	<0.5	**1,300**	**1,400**	**1,400**	**1,500**	**1,400**	**1,300**	**890**	**1,100**	**1,000**	**1,400**	**15**	**13**	**14**	**0.1**	**0.8**
	1,1-dichloroethene	µg/L	0.5	**700(#10)**	**30**		**30**	**30**	<1	<0.5	**240**	**260**	**280**	**270**	**250**	**180**	**130**	**200**	**170**	**220**	**5**	**3**	**4**	<1	<0.5
	1,1-dichloropropene	µg/L	1						<1	<1	-	-	-	<1	-	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	1,2,3-trichloropropane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dibromo-3-chloropropane	µg/L	1						<1	<1	-	-	-	<1	-	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	1,2-dichloroethane	µg/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<1	<0.5	**5**	<20	<20	**5**	**5 - 5.3**	**4**	**3**	**4**	**4**	**5**	<0.01	<0.5	<0.5	<0.01	<0.5
	1,2-dichloropropane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-dichloropropane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,2-dichloropropane	µg/L	1						<1	<1	-	-	-	<1	-	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	Benzyl chloride	mg/L	0.005						-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	µg/L	1						<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	Bromodichloromethane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromoform	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbon tetrachloride	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chlorodibromomethane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chloroethane	µg/L	1						<10	<10	-	-	-	<10	<1	<10	<10	<10	<10	<10	-	<10	<10	-	<10
	Chloroform	µg/L	1	**370**	**250**		**250**	**250**	<1	<1	<5	<20	<20	<1	<5	<1	<1	<1	<1	<1	<5	<1	<1	<5	<1
	Chloromethane	µg/L	1						<10	<10	<1	<20	<20	<10	<1	<10	<10	<10	<10	<10	<1	<10	<10	<1	<10
	cis-1,2-dichloroethene	µg/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	<1	<0.5	<1	<20	<20	<1	<1	**0.6**	<1	<1	<1	**0.7**	**0.87**	**0.9**	**1**	**0.04**	<0.5
	cis-1,3-dichloropropene	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibromomethane	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	µg/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	-	-	**3**	<20	<20	-	<1	-	-	-	-	-	<0.02	-	-	<0.02	-
	Hexachlorobutadiene	µg/L	1		**0.7**				<1	<1	-	-	-	<1	<5	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	Hexachlorocyclopentadiene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	µg/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#4)/4.9(#9)**	<1	<0.5	<1	<20	<20	<1	<1	**0.6**	<1	<1	<1	**0.7**	**0.14**	<0.5	<0.5	**0.05**	<0.5
	Tetrachloroethene	µg/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	<1	<0.5	<1	<20	<20	<1	<1	<0.5	<1	<1	<1	<0.5	**0.03**	<0.5	<0.5	**0.05**	<0.5
	trans-1,2-dichloroethene	µg/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	<1	<0.5	<1	<20	<20	<1	<1	<0.5	<1	<1	<1	<0.5	<1	<0.5	<0.5	<1	<0.5
	trans-1,3-dichloropropene	µg/L	1						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Vinyl chloride	µg/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	<10	<0.3	<5	<20	<20	<10	**3**	<0.3	<10	<10	<10	**4**	<1	<0.3	<0.3	<1	<0.3
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	µg/L	50						-	-	-	-	-	-	<50	-	-	-	-	-	-	-	-	-	-
Field	Alkalinity (total)	mg/L	5						560	-	-	-	-	-	-	180	-	-	-	-	-	75	-	-	160
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	µg/L	1						<1	<1	-	-	-	<1	<5	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	1,2,4,5-tetrachlorobenzene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	µg/L	1	**80**					<1	<1	-	-	-	<1	<5	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	1,2-dichlorobenzene	µg/L	1		**1500**			**1**	<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3,5-Trichlorobenzene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	µg/L	1					**20**	<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,4-dichlorobenzene	µg/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<1	<0.5	<1	<20	<20	<1	<1	<0.5	<1	<1	<1	<0.5	**0.21**	<0.5	<0.5	<0.01	<0.5
	2-chlorotoluene	µg/L	1						<1	<1	-	-	-	<1	-	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	4-chlorotoluene	µg/L	1						<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	Bromobenzene	µg/L	1						<1	<1	-	-	-	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	-	<1
	Chlorobenzene	µg/L	0.01						<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<0.01	<1	<1	<0.01	<1
	Hexachlorobenzene	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Pentachlorobenzene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	µg/L	1		**1**				<1	<1	<1	<20	<20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromomethane	µg/L	1		**1**				<10	<10	<1	<20	<20	<10	<1	<10	<10	<10	<10	<10	<1	<10	<10	<1	<10
	Dichlorodifluoromethane	µg/L	1		-				<10	<10	-	-	-	<10	<1	<10	<10	<10	<10	<10	-	<10	<10	-	<10
	Iodomethane	µg/L	1						-	-	<1	<20	<20	-	<1	-	-	-	-	-	<1	-	-	<1	-
	Trichlorofluoromethane	µg/L	1						<10	<10	<1	<20	<20	<10	<1	<10	<10	<10	<10	<10	<1	<10	<10	<1	<10
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/L	1						-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	µg/L	1						-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-	-	-
	2,4,6-trichlorophenol	µg/L	1		**20**			**2**	-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-	-	-
	2,4-dichlorophenol	µg/L	1		**200**			**0.3**	-	-	-	-	-	-	<3	-	-	-	-	-	<3	-	-	-	-
	2,6-dichlorophenol	µg/L	1						-	-	-	-	-	-	<3	-	-	-	-	-	<3	-	-	-	-
	2-chlorophenol	µg/L	1		**300**			**0.1**	-	-	-	-	-	-	<3	-	-	-	-	-	<3	-	-	-	-
	Pentachlorophenol	µg/L	5	**22**	**10**				-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-	-	-
	tetrachlorophenols	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	<30	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW15	MW16	MW16	MW16	MW17	MW17	MW17	MW18	MW18	MW18	MW19	MW19	MW19	MW20	MW20	MW20	MW21	MW21
Sampled Date	13/08/2014	20/05/2014	1/07/2014	6/08/2014	20/05/2014	1/07/2014	13/08/2014	21/05/2014	3/07/2014	13/08/2014	20/05/2014	2/07/2014	13/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014
SDG	4517	20/05/2014	4267	4495	20/05/2014	4267	4517	21/05/2014	4290	4517	20/05/2014	4273	4517	21/05/2014	4273	4517	21/05/2014	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
	Heptachlor (including its epoxide)	mg/L							-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-
	Tokuthion	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/L							<0.004	<0.008	<0.004	<0.004	<0.008	<0.004	<0.004	<0.008	<0.004	<0.004	<0.008	<0.004	<0.004	<0.008	<0.004	<0.004	<0.008	<0.004
	Acetaldehyde	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/L	0.25						-	-	-	-	-	-	-	-	-	-	<0.25	-	-	-	-	-	-	-
	Carbonate as CaCO3	mg/L	5						-	-	<5	-	-	<5	-	-	<5	-	-	<5	-	-	<5	-	-	<5
	Ethyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	<1.000	-	-	-	-	-	-	-
	Formaldehyde	mg/L	0.1		**0.5**		**0.5(#18)**	**0.5**	-	<0.2	-	-	<0.2	-	-	<0.2	-	-	<0.2	-	-	<0.2	-	-	<0.2	-
	Methyl acrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	<1.000	-	-	-	-	-	-	-
	Nitrogen (Organic)	mg/L	0.2						-	-	-	-	-	-	-	-	-	-	<0.2	-	-	2.8	-	-	2.8	-
	N-Nitrosodiphenyl & Diphenylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						-	<0.00005	-	-	<0.00005	-	-	**0.00013**	-	-	<0.00005	-	-	**0.00012**	-	-	**0.00012**	-
Amino Aliphatics	N-nitrosodiethylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	2-naphthylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	Diphenylamine	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
Anilines	2-nitroaniline	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	3-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
BTEX	Benzene	µg/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ethylbenzene	µg/L	1	**4(#10)**	**300/3(#)**		**300/3(#)**	**300/3(#)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	1	**180(#10)**	**800/25(#)**		**800/25(#)**	**800/25(#)**	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene (m & p)	µg/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene Total	µg/L	3		**600/20(#)**		**600/20(#)**	**600/20(#)**	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,1-trichloroethane	µg/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5
	1,1,2,2-tetrachloroethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,2-trichloroethane	µg/L	1	**1900**					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1-dichloroethane	µg/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(9#)**	<0.5	**0.06**	<0.5	<0.5	**0.01**	<0.5	<0.5	**24**	**5**	**8**	**4.3**	**2**	**2**	**<1 - 0.34**	<0.5	<0.5	**0.7**	<0.5
	1,1-dichloroethene	µg/L	0.5	**700(#10)**	**30**		**30**	**30**	<0.5	**1**	<1	<0.5	<1	<1	<0.5	**23**	**3**	**8**	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<1
	1,1-dichloropropene	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1
	1,2,3-trichloropropane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dibromo-3-chloropropane	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1
	1,2-dichloroethane	µg/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	**0.32**	<0.5	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5
	1,2-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-dichloropropane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,2-dichloropropane	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1
	Benzyl chloride	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-
	Bromochloromethane	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1
	Bromodichloromethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromoform	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbon tetrachloride	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chlorodibromomethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chloroethane	µg/L	1						<10	-	<10	<10	-	<10	<10	-	<10	<10	-	<10	<10	<1	<10	<10	-	<10
	Chloroform	µg/L	1	**370**	**250**		**250**	**250**	<1	<5	<1	<1	<5	<1	<1	<5	<1	<1	<5	<1	<1	<5	<1	<1	<5	<1
	Chloromethane	µg/L	1						<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10
	cis-1,2-dichloroethene	µg/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	**0.03**	<0.5	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	**2.4**	**2**
	cis-1,3-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibromomethane	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	µg/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	-	<0.02	-	-	<0.02	-	-	<0.02	-	-	<0.02	-	-	<0.02	-	-	<0.02	-
	Hexachlorobutadiene	µg/L	1		**0.7**				<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	<5	<1	<1	-	<1
	Hexachlorocyclopentadiene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Hexachloroethane	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Trichloroethene	µg/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#4)/4.9(#9)**	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	**0.02**	<0.5	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	**4.7**	**5**
	Tetrachloroethene	µg/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	<0.5	<0.02	<0.5	<0.5	<0.02	<0.5	<0.5	<0.02	<0.5	<0.5	<0.02	<0.5	<0.5	<0.02	<0.5	<0.5	**2**	**2**
	trans-1,2-dichloroethene	µg/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5
	trans-1,3-dichloropropene	µg/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Vinyl chloride	µg/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	<0.3	-	<10	<0.3	-	<10	<0.3	<1	<0.3	<0.3	-	<0.3	<0.3	<1	<0.3	<0.3	<1	<10
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	2,6-dinitrotoluene	µg/L	5						-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-
	Nitrobenzene	µg/L	50						-	-	-	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-
Field	Alkalinity (total)	mg/L	5						-	-	660	-	-	320	-	-	52	-	-	150	-	-	170	-	-	90
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-
	1,2,3-trichlorobenzene	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	<5	<1	<1	-	<1
	1,2,4,5-tetrachlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	1,2,4-trichlorobenzene	µg/L	1	**80**					<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	<5	<1	<1	-	<1
	1,2-dichlorobenzene	µg/L	1		**1500**			**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3,5-Trichlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	1,3-dichlorobenzene	µg/L	1					**20**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,4-dichlorobenzene	µg/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	**0.02**	<0.5	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5
	2-chlorotoluene	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1
	4-chlorotoluene	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	-	<1
	Bromobenzene	µg/L	1						<1	-	<1	<1	-	<1	<1	-	<1	<1	-	<1	<1	<1	<1	<1	-	<1
	Chlorobenzene	µg/L	0.01						<1	<0.01	<1	<1	<0.01	<1	<1	<0.01	<1	<1	<0.01	<1	<1	<0.01	<1	<1	<0.01	<1
	Hexachlorobenzene	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Pentachlorobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	µg/L	1		**1**				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromomethane	µg/L	1		**1**				<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10
	Dichlorodifluoromethane	µg/L	1						<10	-	<10	<10	-	<10	<10	-	<10	<10	-	<10	<10	<1	<10	<10	-	<10
	Iodomethane	µg/L	1						-	<1	-	-	<1	-	-	<1	-	-	<1	-	-	<1	-	-	<1	-
	Trichlorofluoromethane	µg/L	1						<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10	<10	<1	<10
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-
	2,4,5-trichlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	<10	-
	2,4,6-trichlorophenol	µg/L	1		**20**			**2**	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	<10	-
	2,4-dichlorophenol	µg/L	1		**200**			**0.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	<3	-
	2,6-dichlorophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	<3	-
	2-chlorophenol	µg/L	1		**300**			**0.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	<3	-
	Pentachlorophenol	µg/L	5	**22**	**10**				-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	<10	-
	tetrachlorophenols	µg/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<30	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW21	MW22	MW22	MW22	MW23	MW23	Dup 2 (MW23)	Split 2 (MW23)	MW23	MW24	MW24	Dup 2 (MW24)	Split 2 (MW24)
Sampled Date	12/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014	1/07/2014	1/07/2014	13/08/2014	2/07/2014	13/08/2014	13/08/2014	13/08/2014
SDG	4517	21/05/2014	4273	4517	21/05/2014	4267	4267	152602	4517	4273	4517	4517	114589

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 7	Round 7	Round 9	Round 7	Round 9	Round 9	Round 9
	Heptachlor (including its epoxide)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Tokuthion	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes (ADW 2004)	mg/L							<0.004	<0.008	<0.004	<0.004	<0.008	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
	Acetaldehyde	ug/L	30						-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl Acrylate	mg/L	0.25						-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbonate as CaCO3	mg/L	5						-	-	<5	-	-	<5	<5	<5	-	<5	-	-	-
	Ethyl acrylate	ug/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-
	Formaldehyde	mg/L	0.1		**0.5**		**0.5(#18)**	**0.5**	-	<0.2	-	-	<0.2	-	-	-	-	-	-	-	-
	Methyl acrylate	ug/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Organic)	mg/L	0.2						-	<0.2	-	-	0.7	-	-	-	-	-	-	-	-
	N-Nitrosodiphenyl & Diphenylamine	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Vinyl chloride (SIM)	mg/L	0.00005						-	<0.00005	-	-	<0.00005	-	-	-	-	-	-	-	-
Amino Aliphatics	N-nitrosodiethylamine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-butylamine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-Nitrosomethylethylamine	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-naphthylamine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Diphenylamine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines	2-nitroaniline	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	3-nitroaniline	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chloroaniline	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitroaniline	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methyl-5-nitroaniline	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Aniline	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
BTEX	Benzene	ug/L	1	**700**	**1**		**1(#18)**	**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ethylbenzene	ug/L	1	**4(#10)**	**300/3(#)**		**300/3(#)**	**300/3(#)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	ug/L	1	**180(#10)**	**800/25(#)**		**800/25(#)**	**800/25(#)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1
	Xylene (m & p)	ug/L	2	**75(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	ug/L	1	**350(#10)**	**190(#9)**		**190(#9)**	**190(#9)**	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1
	Xylene Total	ug/L	3		**600/20(#)**		**600/20(#)**	**600/20(#)**	<3	<3	<3	<3	<3	<3	<3	<3	<3	2	<3	<3	<3
	C6-C10 less BTEX (F1)	mg/L	0.01						<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chlorinated Hydrocarbons	1,1,1,2-tetrachloroethane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,1-trichloroethane	ug/L	0.5	**270(#10)**	**8000(#9)**		**8000(#9)**	**8000(#9)**	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1,2,2-tetrachloroethane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1,2-trichloroethane	ug/L	1	**1900**					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,1-dichloroethane	ug/L	0.01	**250(#10)**	**27(#9)**		**27(#9)**	**27(9#)**	<0.5	<0.01	<0.5	<0.5	**0.01**	<0.5	<0.5	<1	<0.5	**1**	**1**	**1**	**1**
	1,1-dichloroethene	ug/L	0.5	**700(#10)**	**30**		**30**	**30**	<0.5	<1	<0.5	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	1,1-dichloropropene	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	1,2,3-trichloropropane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dibromo-3-chloropropane	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dichloroethane	ug/L	0.01	**1900(#10)**	**3**		**3(#8)**	**3**	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dichloropropane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-dichloropropane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,2-dichloropropane	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	Benzyl chloride	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromochloromethane	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	Bromodichloromethane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromoform	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbon tetrachloride	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chlorodibromomethane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Chloroethane	ug/L	1						<10	-	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10
	Chloroform	ug/L	1	**370**	**250**		**250**	**250**	<1	<5	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1
	Chloromethane	ug/L	1						<10	<1	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10
	cis-1,2-dichloroethene	ug/L	0.01	**970(#12)**	**60**		**60(#8)**	**60**	**5**	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	cis-1,3-dichloropropene	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dibromomethane	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Dichloromethane	ug/L	0.02	**4000(#10)**	**4**		**4(#18)**	**4**	-	<0.02	-	-	<0.02	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	ug/L	1		**0.7**				<1		<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	Hexachlorocyclopentadiene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	ug/L	0.01	**330(#10)**	**4.9(#9)**		**30(#4)/4.9(#9)**	**30(#4)/4.9(#9)**	**4**	**0.15**	<0.5	<0.5	<0.01	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	Tetrachloroethene	ug/L	0.02	**70(#10)**	**50**		**50(#18)**	**50**	**1**	**0.08**	<0.5	<0.5	<0.02	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,2-dichloroethene	ug/L	0.5	**970(#12)**	**60**		**60(#8)**	**60**	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	trans-1,3-dichloropropene	ug/L	1						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Vinyl chloride	ug/L	0.3	**930(#12)**	**0.3**		**0.3(#8)**	**0.3**	<0.3	<1	<0.3	<0.3	<1	<10	<10	<10	<0.3	<0.3	<0.3	<0.3	<0.3
Explosives	1,3,5-Trinitrobenzene	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-Dinitrotoluene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2,6-dinitrotoluene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrobenzene	ug/L	50						-	-	-	-	-	-	-	-	-	-	-	-	-
Field	Alkalinity (total)	mg/L	5						-	-	460	-	-	460	450	430	-	320	-	-	-
Halogenated Benzenes	1,2,3,4-tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3,5-Tetrachlorobenzene	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	1,2,4,5-tetrachlorobenzene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	ug/L	1	**80**					<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	1,2-dichlorobenzene	ug/L	1		**1500**			**1**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3,5-Trichlorobenzene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	ug/L	1					**20**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,4-dichlorobenzene	ug/L	0.01	**60(#10)**	**40/0.3(#)**		**40(#18)**	**40/0.3(#)**	<0.5	<0.01	<0.5	<0.5	<0.01	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
	2-chlorotoluene	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	4-chlorotoluene	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	Bromobenzene	ug/L	1						<1	-	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1
	Chlorobenzene	ug/L	0.01						<1	<0.01	<1	<1	<0.01	<1	<1	<1	<1	<1	<1	<1	<1
	Hexachlorobenzene	ug/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorobenzene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Hydrocarbons	1,2-dibromoethane	ug/L	1		**1**				<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bromomethane	ug/L	1		**1**				<10	<1	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10
	Dichlorodifluoromethane	ug/L	1						<10	-	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10
	Iodomethane	ug/L	1							<1			<1								
	Trichlorofluoromethane	ug/L	1						<10	<1	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10
Halogenated Phenols	2,3,4,6-tetrachlorophenol	ug/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4,5-trichlorophenol	ug/L	1						-	<10	-	-	-	-	-	-	-	-	-	-	-
	2,4,6-trichlorophenol	ug/L	1		**20**			**2**	-	<10	-	-	-	-	-	-	-	-	-	-	-
	2,4-dichlorophenol	ug/L	1		**200**			**0.3**	-	<3	-	-	-	-	-	-	-	-	-	-	-
	2,6-dichlorophenol	ug/L	1						-	<3	-	-	-	-	-	-	-	-	-	-	-
	2-chlorophenol	ug/L	1		**300**			**0.1**	-	<3	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorophenol	ug/L	5	**22**	**10**				-	<10	-	-	-	-	-	-	-	-	-	-	-
	tetrachlorophenols	ug/L	30						-	<30	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW1	MW1	DUP (MW1)	split (MW1)	MW1	MW01	MW01	MW2	MW2	MW02	Dup (MW02)	Split (MW02)	MW2	MW02	MW02	MW3	MW3
Sampled Date	23/04/2012	4/09/2013	4/09/2013	4/09/2013	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	27/03/2014	27/03/2014	27/03/2014	21/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013
SDG	Alliance	4/09/2013	4/09/2013	2485	22/05/2014	4273	4517	Alliance	4/09/2013	3608	3608	107343	21/05/2014	4273	4517	Alliance	4/09/2013

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 1	Round 1	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 3	Round 3	Round 3	Round 6	Round 7	Round 9	Alliance Round	Round 1
Herbicides	Dinoseb	µg/L	100							<100	<100	-	-	-	-		<100	-	-	-	-	-	-		<100
	Pronamide	µg/L	5		70				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Trifluralin	mg/L	0.005		0.09					-	-	-	-	-	-		-	-	-	-	-	-	-		-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						207	190	190	-	-	-	-	291	260	-	-	-	-	-	-	330	340
	Alkalinity (Carbonate as CaCO3)	mg/L	10						<1	<10	<10	-	-	-	-	<1	<10	-	-	-	-	-	-	<1	<10
	Alkalinity (Hydroxide) as CaCO3	µg/L							<1,000	-	-	-	-	-	-	<1,000	-	-	-	-	-	-	-	<1,000	-
	Alkalinity (total) as CaCO3	mg/L							207	-	-	-	-	-	-	291	-	-	-	-	-	-	-	330	-
	Ammonia	mg/L	0.005	0.91				0.5		-	-	<0.005	-	-	<0.005		-	0.042	-	-	-	-	0.011		-
	Ammonia as N	µg/L	10	910	412		412(#18)	412	<10	<10	<10	-	<10	-	-	30	30	-	-	-	60	-	-	40	<10
	Bicarbonate as CaCO3	mg/L	5							-	-	200	-	210	-		-	-	-	-	-	280	-		-
	Chloride	mg/L	1			25-700(#17)		400(#4)	140	110	110	110	-	110	-	62	46	-	-	-	-	51	-	815	600
	Cyanide Total	mg/L	0.004	0.004	0.08		0.08(#18)	0.08	<0.004	<0.005	<0.005	<0.004	-	-	-	<0.004	<0.005	-	-	-	-	-	-	<0.004	<0.005
	Fluoride	mg/L	0.1		1.5	1	2	15		<0.5	<0.5	0.2	-	-	-		0.7	-	-	-	-	-	-		<0.5
	Hydroxide	µg/L	5000							-	-	<5,000	-	<5,000	-		-	-	-	-	-	<5,000	-		-
	Ionic Balance	%							5.86	-	-	0.71	-	-	-	5.78	-	-	-	-	-	-	-	5.93	-
	Kjeldahl Nitrogen Total	mg/L	0.2						0.7	-	-	-	0.9	-	-	0.9	-	-	-	-	<0.2	-	-	1.3	-
	Nitrate (as N)	mg/L	0.005	7.2(#15)	11.286	5(#)	90.293	112.866	7.43	7.7	7.7	6.9	11	8.8	9.2	0.01	0.06	0.015	-	-	0.07	0.099	0.13	19.6	34
	Nitrate (as NO3-)	mg/L			50		30			-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Nitrite (as N)	mg/L	0.005	0.06(#13)	0.912	3.04(#13)	9.119	9.119	0.26	<0.02	<0.02	<0.005	0.03	-	-	<0.01	<0.02	<0.005	-	-	<0.02	-	-	1.49	0.2
	Nitrogen (Total Oxidised)	mg/L	0.005						7.69	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	21.1	-
	Nitrogen (Total)	µg/L	100						8,400	-	-	-	12,000	-	-	900	-	-	-	-	<200	-	-	22400	-
	pH (Lab)	pH Uni	0.1		6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	6.28	-	-	-	-	-	6.4	6.59	-	-	-	-	-	-	6.5	6.76	-
	Phosphate total (P)	mg/L	0.05							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Sodium	mg/L	0.5			115-460(#14)		300(#4)	220	220	220	220	250	-	-	190	200	-	-	-	210	-	-	650	620
	Sulphate	mg/L	1		500/250	1,000	1,000	400	161	-	-	140	-	140	-	138	-	-	-	-	-	150	-	219	-
	Sulphate as S	mg/L	5							51	50	-	-	-	-		45	-	-	-	-	-	-		68
	TDS	mg/L	5					600	724	720	680	-	-	690	-	620	640	-	-	-	-	1,100	-	2,100	1,900
	TKN (as N)	mg/L								-	-	-	-	-	-		-	-	-	-	-	-	-		-
	TOC	mg/L	1							-	-	-	-	4	-		-	-	-	-	-	5	-		-
Lead	Lead	mg/L	0.001	0.0044	0.01	2	0.1	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	-	-	<0.001	-	<0.001	<0.001	<0.001
MAH	1,2,4-trimethylbenzene	µg/L	1						<0.05	<1	<1	<1	-	-	-	<0.05	<1	-	-	-	-	-	-	<0.05	<1
	1,3,5-trimethylbenzene	µg/L	1						<0.05	<1	<1	<1	-	-	-	<0.05	<1	-	-	-	-	-	-	<0.05	<1
	Isopropylbenzene	µg/L	1	30(#10)	450(#9)			450(#9)	<5	<1	<1	<1	-	-	-	<5	<1	-	-	-	-	-	-	<5	<1
	n-butylbenzene	µg/L	1						<5	-	-	<1	-	-	-	<5	-	-	-	-	-	-	-	<5	-
	n-propylbenzene	µg/L	1						<5	-	-	<1	-	-	-	<5	-	-	-	-	-	-	-	<5	-
	p-isopropyltoluene	µg/L	1						<5	-	-	<1	-	-	-	<5	-	-	-	-	-	-	-	<5	-
	sec-butylbenzene	µg/L	1						<5	-	-	<1	-	-	-	<5	-	-	-	-	-	-	-	<5	-
	Styrene	µg/L	1	72(#13)	30/4		30/4	30/4	<0.05	<1	<1	<1	-	-	-	<0.05	<1	-	-	-	-	-	-	<0.05	<1
	tert-butylbenzene	µg/L	1						<5	-	-	<1	-	-	-	<5	-	-	-	-	-	-	-	<5	-
Metals	Aluminium	mg/L	0.01			5	5	0.2		<0.05	<0.05	0.08	0.52	-	-		<0.05	-	-	-	0.41	-	-		<0.05
	Antimony	mg/L	0.001		0.003					<0.005	<0.005	<0.001	-	-	-		<0.005	-	-	-	-	-	-		<0.005
	Arsenic	mg/L	0.001	0.003(#7)	0.01	0.1	0.5	0.1	<0.001	0.001	0.001	<0.001	<0.001	-	<0.001	0.001	0.002	0.002	-	-	0.002	-	0.002	0.001	0.003
	Barium	mg/L	0.001	0.625(#6)	2		2(#18)	20	0.042	0.03	0.02	0.028	0.03	-	-	0.038	<0.02	-	-	-	0.02	-	-	0.03	<0.02
	Beryllium	mg/L	0.0005	0.00013(#10)	0.06	0.1	0.06(#18)	0.6	<0.001	<0.001	<0.001	<0.0005	-	-	-	<0.001	<0.001	-	-	-	-	-	-	<0.001	<0.001
	Boron	mg/L	0.005	5.1(#10)	4	(#2)	5	40(#11)		<0.05	<0.05	0.035	-	-	-		0.07	-	-	-	-	-	-		<0.05
	Cadmium	mg/L	0.0001	0.0055	0.002	0.01	0.01	0.02	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002	-	<0.0001	<0.0001	<0.0002	<0.0001	-	-	<0.0002	-	<0.0001	<0.0001	<0.0002
	Calcium	mg/L	0.5				1000		4	2.4	2.2	2.6	-	-	-	6	2.3	-	-	-	-	-	-	9	7.3
	Chromium (hexavalent)	mg/L	0.001	0.0044	0.05	0.1	0.005(#18)	0.5	<0.01	<0.001	<0.001	<0.005	-	-	-	<0.01	<0.001	-	-	-	-	-	-	<0.01	<0.001
	Chromium (III+VI)	mg/L	0.001	0.005	0.05	0.1	1	0.5	<0.001	0.002	<0.001	<0.001	<0.001	-	0.001	<0.001	<0.001	<0.001	-	-	<0.001	-	0.006	<0.001	<0.001
	Chromium (Trivalent)	mg/L		0.0274					<0.01	-	-			-	-	<0.01	-	-	-	-	-	-	-	<0.01	-
	Cobalt	mg/L	0.001	0.001	0.06(#9)	0.05	1	0.06(#9)	0.003	<0.001	<0.001	<0.001	<0.001	-	-	0.003	0.001	-	-	-	0.001	-	-	0.003	0.001
	Copper	mg/L	0.001	0.0013	2/1	0.2	0.4	20/1(#)	0.002	<0.001	<0.001	<0.001	<0.001	-	<0.001	0.002	<0.001	<0.001	-	-	<0.001	-	<0.001	0.002	0.001
	Iron	mg/L	0.01	0.3(#10)	0.3(#)	0.1		0.3		<0.05	<0.05	0.024	0.15	<0.01	-		<0.05	-	-	-	0.1	<0.01	-		<0.05
	Magnesium	mg/L	0.5						5	5.5	5.5	5.5	-	-	-	9	6.7	-	-	-	-	-	-	19	21
	Manganese	mg/L	0.005	0.08(10)	0.5/0.1(#)	0.2		5/0.1(#)	0.036	<0.005	<0.005	<0.005	-	<0.005	-	0.034	<0.005	-	-	-	-	<0.005	-	0.057	0.019
	Mercury	mg/L	0.00005	0.0004	0.01(#4)	0.002	0.002	0.01(#4)	<0.0001	<0.0001	<0.0001	<0.00005	<0.0001	-	<0.00005	<0.0001	<0.0001	<0.00005	-	-	<0.0001	-	<0.00005	<0.0001	<0.0001
	Molybdenum	mg/L	0.001	0.023(#10)	0.05	0.01	0.15	0.05		<0.005	<0.005	0.001	-	-	-		<0.005	-	-	-	-	-	-		0.006
	Nickel	mg/L	0.001	0.07	0.02	1	1	0.2	0.01	0.041	0.035	0.049	0.033	-	0.038	0.009	0.022	0.004	-	-	0.024	-	0.041	0.014	0.009
	Phosphorus	mg/L	0.5						0.08	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	<0.01	
	Potassium	mg/L	0.5						<1	0.8	0.8	1.2	-	-	-	<1	<0.5	-	-	-	-	-	-	2	1.8
	Selenium	mg/L	0.001	0.003(#10)	0.01	0.02	0.02	0.1		0.002	0.001	<0.001	<0.001	-	-		<0.001	-	-	-	0.002	-	-		0.008
	Silver	mg/L	0.001	0.0014	0.1					<0.005	<0.005	<0.001	-	-	-		<0.005	-	-	-	-	-	-		<0.005
	Thallium	mg/L	0.001							<0.001	<0.001	<0.001	-	-	-		<0.001	-	-	-	-	-	-		<0.001
	Tin	mg/L	0.001	0.01(#10)	12(#9)		12(#9)	12(#9)		<0.005	<0.005	0.001	-	-	-		<0.005	-	-	-	-	-	-		<0.005
	Vanadium	mg/L	0.001	0.1	0.086(#9)	0.1	0.1	0.086(#9)	<0.01	0.006	<0.005	0.006	-	-	-	<0.01	<0.005	-	-	-	-	-	-	<0.01	<0.005
	Zinc	mg/L	0.001	0.005(#7)	3	0.02	20	3	0.056	0.01	0.007	0.017	0.011	-	0.004	0.028	0.003	<0.001	-	-	0.004	-	0.005	0.03	0.011
Nitroaromatics	2-Picoline	µg/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	4-aminobiphenyl	µg/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Pentachloronitrobenzene	µg/L	5		30				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
Organic	Methane	mg/L	0.005							-	-	-	-	-	-		-	-	-	-	-	-	-		-
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	a-BHC	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Aldrin	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Aldrin + Dieldrin	µg/L			0.3				<4	<0.2	<0.2	<0.4	-	-	-	<4	<0.2	-	-	-	-	-	-	<4	<0.2
	b-BHC	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	chlordane	µg/L	1							<1	<1		-	-	-		<1	-	-	-	-	-	-		<1
	Chlordane (cis)	µg/L								-	-	<0.2	-	-	-		-	-	-	-	-	-	-		-
	Chlordane (trans)	µg/L								-	-	<0.2	-	-	-		-	-	-	-	-	-	-		-
	d-BHC	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	DDD	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	DDT	µg/L	0.1		9				<4	<0.1	<0.1	<0.2	-	-	-	<4	<0.1	-	-	-	-	-	-	<4	<0.1
	DDT+DDE+DDD	µg/L							<8	<0.3	<0.3	<0.6	-	-	-	<8	<0.3	-	-	-	-	-	-	<8	<0.3
	Dieldrin	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Endosulfan I	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Endosulfan II	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Endosulfan sulphate	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Endrin	µg/L	0.1	0.008					<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Endrin aldehyde	µg/L	0.1							<0.1	<0.1	<0.2	-	-	-		<0.1	-	-	-	-	-	-		<0.1
	Endrin ketone	µg/L	0.1							<0.1	<0.1		-	-	-		<0.1	-	-	-	-	-	-		<0.1
	g-BHC (Lindane)	µg/L	0.1		10				<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Heptachlor	µg/L	0.1		0.3				<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Heptachlor epoxide	µg/L	0.1						<2	<0.1	<0.1	<0.2	-	-	-	<2	<0.1	-	-	-	-	-	-	<2	<0.1
	Methoxychlor	µg/L	0.1		300					<0.1	<0.1	<0.2	-	-	-		<0.1	-	-	-	-	-	-		<0.1
	Toxaphene	mg/L	0.01							<0.01	<0.01	-	-	-	-		<0.01	-	-	-	-	-	-		<0.01

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW3	MW03	MW03	MW4	MW4	MW4	MW4	MW04	MW5	MW5	MW5	MW05	MW6	MW6	MW06	MW7	MW7	MW7
Sampled Date	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	4/06/2014	4/06/2014	2/07/2014	23/04/2012	4/09/2013	21/05/2014	4/07/2014	23/04/2012	22/05/2014	2/07/2014	23/04/2012	4/09/2013	22/05/2014
SDG	22/05/2014	4273	4517	Alliance	4/09/2013	4116	5/06/2014	4273	Alliance	4/09/2013	21/05/2014	4293	Alliance	22/05/2014	4273	Alliance	4/09/2013	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 6	Round 7	Alliance Round	Round 6	Round 7	Alliance Round	Round 1	Round 6
Herbicides	Dinoseb	µg/L	100						-	-	-		<100	-	-	-		<100	-	-		-	-		<100	-
	Pronamide	µg/L	5		70				-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	Trifluralin	mg/L	0.005		0.09				-	-	-		-	-	<0.005	-		-	-	-		-	-		-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	-	-	105	110	-	-	-	57	89	-	-	394	-	-	355	350	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	-	-	<1	<10	-	-	-	<1	<10	-	-	<1	-	-	<1	<10	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	<1,000	-	-	-	-	<1,000	-	-	-	<1,000	-	-	<1,000	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	105	-	-	-	-	57	-	-	-	394	-	-	355	-	-
	Ammonia	mg/L	0.005	0.91				0.5	-	-	<0.005		-	-	-	-		-	-	-		-	-		-	-
	Ammonia as N	µg/L	10	910	412		412(#18)	412	30	-	-	<10	<10	-	<10	-	<10	<10	<10	-	<10	<10	-	<10	<10	<10
	Bicarbonate as CaCO3	mg/L	5						-	380	-		-	-	-	130		-	-	170		-	390		-	-
	Chloride	mg/L	1			25-700(#17)		400(#4)	-	670	-	1600	1,700	-	-	1,900	931	1,200	-	130	125	-	100	755	500	-
	Cyanide Total	mg/L	0.004	0.004	0.08		0.08(#18)	0.08	-	-	-	<0.004	<0.005	-	-	-	<0.004	<0.005	-	-	<0.004	-	-	<0.004	<0.005	-
	Fluoride	mg/L	0.1		1.5	1	2	15	-	-	-		<0.5	-	-	-		<0.5	-	-		-	-		1.1	-
	Hydroxide	µg/L	5000						-	<5,000	-		-	-	-	<5,000		-	-	<5,000		-	<5,000		-	-
	Ionic Balance	%							-	-	-	4.32	-	-	-	-	6.85	-	-	-	6.97	-	-	4.51	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						1.5	-	-	0.8	-	-	<0.2	-	0.9	-	<0.2	-	<0.1	0.7	-	<0.1	-	1.5
	Nitrate (as N)	mg/L	0.005	7.2(#15)	11.286	5(#)	90.293	112.866	27	19	6	7.02	6.1	-	2.2	3.2	1.07	2.2	1.4	0.29	5.29	5.5	4.1	34.8	55	45
	Nitrate (as NO3-)	mg/L			50		30		-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Nitrite (as N)	mg/L	0.005	0.06(#13)	0.912	3.04(#13)	9.119	9.119	0.05	-	-	0.54	<0.02	-	<0.02	-	0.05	<0.02	0.02	-	0.03	<0.02	-	0.06	<0.02	0.03
	Nitrogen (Total Oxidised)	mg/L	0.005						-	-	-	7.56	-	-	-	-	1.12	-	-	-	5.32	-	-	34.9	-	-
	Nitrogen (Total)	µg/L	100						29,000	-	-	8400	-	-	2,200	-	2000	-	<200	-	5300	6,200	-	34900	-	47,000
	pH (Lab)	pH Unit	0.1		6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	-	-	7	6.1	-	-	6.5	-	5.82	-	-	-	6.8	-	-	6.98	-	-
	Phosphate total (P)	mg/L	0.05						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Sodium	mg/L	0.5			115-460(#14)		300(#4)	720	-	-	862	970	-	1100	-	471	680	830	-	244	230	-	610	580	420
	Sulphate	mg/L	1		500/250	1,000	1,000	400	-	190	-	163	-	-	-	140	119	-	-	95	100	-	100	162	-	-
	Sulphate as S	mg/L	5						-	-	-		52	-	-	-		51	-	-		-	-		56	-
	TDS	mg/L	5					600	-	2,100	-	3,080	3,400	-	-	3,800	1,860	2,500	-	640	926	-	970	1980	1,700	-
	TKN (as N)	mg/L							-	-	-		-	-	-	-		-	-	-		-	-		-	-
	TOC	mg/L	1						-	6	-		-	-	-	10		-	-	16		-	6		-	-
Lead	Lead	mg/L	0.001	0.0044	0.01	2	0.1	0.1	<0.001	-	<0.001	0.011	<0.001	-	<0.001	-	0.006	<0.001	<0.001	-	0.002	<0.001	-	0.015	<0.001	<0.001
MAH	1,2,4-trimethylbenzene	µg/L	1						-	-	-	<0.05	<1	-	<1	-	<0.05	<1	-	-	<0.05	-	-	<0.05	<1	-
	1,3,5-trimethylbenzene	µg/L	1						-	-	-	<0.05	<1	-	<1	-	<0.05	<1	-	-	<0.05	-	-	<0.05	<1	-
	Isopropylbenzene	µg/L	1	30(#10)	450(#9)			450(#9)	-	-	-	<5	<1	-	<1	-	<5	<1	-	-	<5	-	-	<5	<1	-
	n-butylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-
	n-propylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-
	p-isopropyltoluene	µg/L	1						-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-
	sec-butylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-
	Styrene	µg/L	1	72(#13)	30/4		30/4	30/4	-	-	-	<0.05	<1	-	<1	-	<0.05	<1	-	-	<0.05	-	-	<0.05	<1	-
	tert-butylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-
Metals	Aluminium	mg/L	0.01			5	5	0.2	0.53	-	-		<0.05	-	<0.05	-		<0.05	0.16	-		0.48	-		<0.05	0.63
	Antimony	mg/L	0.001		0.003				-	-	-		<0.005	-	-	-		<0.005	-	-		-	-		<0.005	-
	Arsenic	mg/L	0.001	0.003(#7)	0.01	0.1	0.5	0.1	0.002	-	0.001	<0.001	0.003	-	<0.001	-	0.001	0.003	0.002	-	0.003	0.004	-	0.002	0.004	0.003
	Barium	mg/L	0.001	0.625(#6)	2		2(#18)	20	<0.02	-	-	0.177	0.15	-	0.14	-	0.073	0.07	0.08	-	0.02	<0.02	-	0.052	0.02	<0.02
	Beryllium	mg/L	0.0005	0.00013(#10)	0.06	0.1	0.06(#18)	0.6	-	-	-	<0.001	<0.001	-	-	-	<0.001	<0.001	-	-	<0.001	-	-	<0.001	<0.001	-
	Boron	mg/L	0.005	5.1(#10)	4	(#2)	5	40(#11)	-	-	-		<0.05	-	-	-		<0.05	-	-		-	-		0.07	-
	Cadmium	mg/L	0.0001	0.0055	0.002	0.01	0.01	0.02	<0.0002	-	<0.0001	0.0003	<0.0002	-	<0.0002	-	<0.0001	<0.0001	<0.0002	-	<0.0001	<0.0002	-	<0.0001	<0.0002	<0.0002
	Calcium	mg/L	0.5				1000		-	-	-	46	47	-	-	-	27	31	-	-	6	-	-	14	8.9	-
	Chromium (hexavalent)	mg/L	0.001	0.0044	0.05	0.1	0.005(#18)	0.5	-	-	-	<0.01	<0.001	-	-	-	<0.01	<0.001	-	-	<0.01	-	-	<0.01	<0.001	-
	Chromium (III+VI)	mg/L	0.001	0.005	0.05	0.1	1	0.5	<0.001	-	0.007	<0.001	<0.001	-	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001
	Chromium (Trivalent)	mg/L		0.0274					-	-	-	<0.01	-	-	-	-	<0.01	-	-	-	<0.01	-	-	<0.01	-	-
	Cobalt	mg/L	0.001	0.001	0.06(#9)	0.05	1	0.06(#9)	0.002	-	-	0.01	0.002	-	0.002	-	0.009	0.003	0.002	-	0.003	<0.001	-	0.002	<0.001	<0.001
	Copper	mg/L	0.001	0.0013	2/1	0.2	0.4	20/1(#)	<0.001	-	0.001	0.004	0.001	-	0.001	-	0.004	0.001	<0.001	-	0.002	<0.001	-	0.004	<0.001	<0.001
	Iron	mg/L	0.01	0.3(#10)	0.3(#)	0.1		0.3	0.25	<0.01	-		<0.05	-	<0.05	0.026		<0.05	0.11	1.6		0.37	<0.01		<0.05	0.25
	Magnesium	mg/L	0.5						-	-	-	80	110	-	-	-	51	74	-	-	10	-	-	22	20	-
	Manganese	mg/L	0.005	0.08(10)	0.5/0.1(#)	0.2		5/0.1(#)	-	0.011	-	0.083	0.009	-	-	0.008	0.036	0.007	-	0.29	0.012	-	<0.005	0.021	<0.005	-
	Mercury	mg/L	0.00005	0.0004	0.01(#4)	0.002	0.002	0.01(#4)	<0.0001	-	<0.00005	<0.0001	<0.0001	-	<0.0001	-	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001
	Molybdenum	mg/L	0.001	0.023(#10)	0.05	0.01	0.15	0.05	-	-	-		<0.005	-	-	-		<0.005	-	-		-	-		<0.005	-
	Nickel	mg/L	0.001	0.07	0.02	1	1	0.2	0.005	-	0.044	0.022	0.038	-	0.025	-	0.026	0.02	0.017	-	0.015	0.013	-	0.018	0.005	0.008
	Phosphorus	mg/L	0.5						-	-	-	0.04	-	-	-	-	<0.01	-	-	-	0.09	-	-	0.02	-	-
	Potassium	mg/L	0.5						-	-	-	3	2.1	-	-	-	1	1.8	-	-	<1	-	-	<1	0.7	-
	Selenium	mg/L	0.001	0.003(#10)	0.01	0.02	0.02	0.1	0.007	-	-		0.021	-	0.002	-		0.017	0.012	-		0.004	-		0.011	0.006
	Silver	mg/L	0.001	0.0014	0.1				-	-	-		<0.005	-	-	-		<0.005	-	-		-	-		<0.005	-
	Thallium	mg/L	0.001						-	-	-		<0.001	-	-	-		<0.001	-	-		-	-		<0.001	-
	Tin	mg/L	0.001	0.01(#10)	12(#9)		12(#9)	12(#9)	-	-	-		<0.005	-	-	-		<0.005	-	-		-	-		<0.005	-
	Vanadium	mg/L	0.001	0.1	0.086(#9)	0.1	0.1	0.086(#9)	-	-	-	<0.01	<0.005	-	-	-	<0.01	<0.005	-	-	<0.01	-	-	<0.01	0.006	-
	Zinc	mg/L	0.001	0.005(#7)	3	0.02	20	3	0.006	-	0.005	0.216	0.01	-	0.016	-	0.24	0.008	0.022	-	0.027	0.004	-	0.024	0.003	0.006
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	Pentachloronitrobenzene	µg/L	5		30				-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
Organic	Methane	mg/L	0.005						-	-	-		-	-	-	-		-	-	-		-	-		-	-
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	a-BHC	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Aldrin	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Aldrin + Dieldrin	µg/L			0.3				-	-	-	<4	<0.2	-	<10	-	<4	<0.2	-	-	<4	-	-	<4	<0.2	-
	b-BHC	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	chlordane	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		-	-		<1	-
	Chlordane (cis)	µg/L							-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Chlordane (trans)	µg/L							-	-	-		-	-	-	-		-	-	-		-	-		-	-
	d-BHC	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	DDD	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	DDT	µg/L	0.1		9				-	-	-	<4	<0.1	-	<5	-	<4	<0.1	-	-	<4	-	-	<4	<0.1	-
	DDT+DDE+DDD	µg/L							-	-	-	<8	<0.3	-	<15	-	<8	<0.3	-	-	<8	-	-	<8	<0.3	-
	Dieldrin	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Endosulfan I	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Endosulfan II	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Endosulfan sulphate	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Endrin	µg/L	0.1	0.008					-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Endrin aldehyde	µg/L	0.1						-	-	-		<0.1	-	<5	-		<0.1	-	-		-	-		<0.1	-
	Endrin ketone	µg/L	0.1						-	-	-		<0.1	-	<5	-		<0.1	-	-		-	-		<0.1	-
	g-BHC (Lindane)	µg/L	0.1		10				-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Heptachlor	µg/L	0.1		0.3				-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Heptachlor epoxide	µg/L	0.1						-	-	-	<2	<0.1	-	<5	-	<2	<0.1	-	-	<2	-	-	<2	<0.1	-
	Methoxychlor	µg/L	0.1		300				-	-	-		<0.1	-	<5	-		<0.1	-	-		-	-		<0.1	-
	Toxaphene	mg/L	0.01						-	-	-		<0.01	-	-	-		<0.01	-	-		-	-		<0.01	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	DUP (MW07)	Split (MW07)	MW07	MW8	MW8	MW08	MW8	MW8	MW08	MW08	MW9	MW9	MW9	DUP (MW09)	Split (MW9)	MW9	MW9
Sampled Date	22/05/2014	22/05/2014	3/07/2014	23/04/2012	4/09/2013	27/03/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	24/04/2012	4/09/2013	20/03/2014	20/03/2014	20/03/2014	11/04/2014	22/05/2014
SDG	22/05/2014	4021	4290	Alliance	4/09/2013	3608	11/04/2014	22/05/2014	4273	4517	Alliance	4/09/2013	20/03/2014	20/03/2014	3549	11/04/2014	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 3	Round 4	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 2	Round 2	Round 2	Round 4	Round 6
Herbicides	Dinoseb	µg/L	100						-	-	-		<100	-	-	-	-	-		<100	-	-	-	-	<100
	Pronamide	µg/L	5		70				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Trifluralin	mg/L	0.005		0.09				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	-	-	234	350	-	-	-	-	-	26	<20	-	-	-	-	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	-	-	<1	<10	-	-	-	-	-	<1	<10	-	-	-	-	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	<1,000	-	-	-	-	-	-	<1,000	-	-	-	-	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	234	-	-	-	-	-	-	26	-	-	-	-	-	-
	Ammonia	mg/L	0.005	0.91				0.5	-	<0.005	-		-	0.007	-	-	-	<0.005		-	-	-	-	-	-
	Ammonia as N	µg/L	10	910	412		412(#18)	412	<10	-	-	<10	<10	-	-	<10	-	-	180	<10	-	-	-	-	<10
	Bicarbonate as CaCO3	mg/L	5						-	-	400		-	-	-	-	330	-		-	-	-	-	-	-
	Chloride	mg/L	1			25-700(#17)		400(#4)	-	-	370	751	150	-	-	-	230	-	634	450	-	-	-	-	-
	Cyanide Total	mg/L	0.004	0.004	0.08		0.08(#18)	0.08	-	-	-	<0.004	<0.005	-	-	-	-	-	<0.004	<0.005	-	-	-	-	-
	Fluoride	mg/L	0.1		1.5	1	2	15	-	-	-		0.9	-	-	-	-	-		<0.5	-	-	-	-	-
	Hydroxide	µg/L	5000						-	-	<5,000		-	-	-	-	<5,000	-		-	-	-	-	-	-
	Ionic Balance	%							-	-	-	5.16	-	-	-	-	-	-	6.01	-	-	-	-	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						0.5	-	-	<0.1	-	-	-	<0.2	-	-	3	-	-	-	-	-	0.5
	Nitrate (as N)	mg/L	0.005	7.2(#15)	11.286	5(#)	90.293	112.866	45	33	35	2.94	3.6	3	-	4.4	3.4	3.8	0.27	0.57	-	-	-	-	0.44
	Nitrate (as NO3-)	mg/L			50		30		-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Nitrite (as N)	mg/L	0.005	0.06(#13)	0.912	3.04(#13)	9.119	9.119	<0.02	<0.005	-	0.2	<0.02	<0.005	-	0.03	-	-	<0.01	<0.02	-	-	-	-	0.02
	Nitrogen (Total Oxidised)	mg/L	0.005						-	33	-	3.14	-	-	-	-	-	-	0.27	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	100						46,000	36,000	-	3100	-	-	-	4,400	-	-	3300	-	-	-	-	-	960
	pH (Lab)	pH Unit	0.1		6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	-	-	-	6.37	-	-	-	-	-	6.8	5.49	-	-	-	-	-	-
	Phosphate total (P)	mg/L	0.05						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Sodium	mg/L	0.5			115-460(#14)		300(#4)	420	490	-	550	280	-	-	270	-	-	400	330	-	-	-	-	290
	Sulphate	mg/L	1		500/250	1,000	1,000	400	-	-	150	191	-	-	-	-	94	-	287	-	-	-	-	-	-
	Sulphate as S	mg/L	5						-	-	-		24	-	-	-	-	-		88	-	-	-	-	-
	TDS	mg/L	5					600	-	-	1,400	1,700	820	-	-	-	1,300	-	1,460	1,100	-	-	-	-	-
	TKN (as N)	mg/L							-	2.7	-		-	-	-	-	-	-		-	-	-	-	-	-
	TOC	mg/L	1						-	-	4		-	-	-	-	3	-		-	-	-	-	-	-
Lead	Lead	mg/L	0.001	0.0044	0.01	2	0.1	0.1	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	-	<0.001	0.015	0.003	-	-	-	-	<0.005
MAH	1,2,4-trimethylbenzene	µg/L	1						-	-	-	<0.05	<1	-	-	-	-	-	<0.05	<1	-	-	-	-	-
	1,3,5-trimethylbenzene	µg/L	1						-	-	-	<0.05	<1	-	-	-	-	-	<0.05	<1	-	-	-	-	-
	Isopropylbenzene	µg/L	1	30(#10)	450(#9)			450(#9)	-	-	-	<5	<1	-	-	-	-	-	<5	<1	-	-	-	-	-
	n-butylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-
	n-propylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-
	p-isopropyltoluene	µg/L	1						-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-
	sec-butylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-
	Styrene	µg/L	1	72(#13)	30/4		30/4	30/4	-	-	-	<0.05	<1	-	-	-	-	-	<0.05	<1	-	-	-	-	-
	tert-butylbenzene	µg/L	1						-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-
Metals	Aluminium	mg/L	0.01			5	5	0.2	0.6	0.27	-		<0.05	-	-	0.37	-	-		0.18	-	-	-	-	0.71
	Antimony	mg/L	0.001		0.003				-	-	-		<0.005	-	-	-	-	-		<0.005	-	-	-	-	-
	Arsenic	mg/L	0.001	0.003(#7)	0.01	0.1	0.5	0.1	0.003	0.003	-	0.002	0.002	0.003	-	0.003	-	0.003	0.001	0.001	-	-	-	-	<0.005
	Barium	mg/L	0.001	0.625(#6)	2		2(#18)	20	<0.02	0.02	-	0.032	0.02	-	-	0.02	-	-	0.182	0.15	-	-	-	-	0.03
	Beryllium	mg/L	0.0005	0.00013(#10)	0.06	0.1	0.06(#18)	0.6	-	-	-	<0.001	<0.001	-	-	-	-	-	<0.001	<0.001	-	-	-	-	-
	Boron	mg/L	0.005	5.1(#10)	4	(#2)	5	40(#11)	-	-	-		<0.05	-	-	-	-	-		<0.05	-	-	-	-	-
	Cadmium	mg/L	0.0001	0.0055	0.002	0.01	0.01	0.02	<0.0002	<0.0001	-	<0.0001	<0.0002	<0.0001	-	<0.0002	-	<0.0001	<0.0001	<0.0002	-	-	-	-	<0.001
	Calcium	mg/L	0.5				1000		-	-	-	9	1.9	-	-	-	-	-	16	10	-	-	-	-	-
	Chromium (hexavalent)	mg/L	0.001	0.0044	0.05	0.1	0.005(#18)	0.5	-	-	-	<0.01	<0.001	-	-	-	-	-	<0.01	<0.001	-	-	-	-	-
	Chromium (III+VI)	mg/L	0.001	0.005	0.05	0.1	1	0.5	<0.001	<0.001	-	<0.001	<0.001	0.002	-	<0.001	-	<0.001	0.002	0.004	-	-	-	-	<0.005
	Chromium (Trivalent)	mg/L		0.0274					-	-	-	<0.01	-	-	-	-	-	-	<0.01	-	-	-	-	-	-
	Cobalt	mg/L	0.001	0.001	0.06(#9)	0.05	1	0.06(#9)	<0.001	<0.001	-	0.015	0.002	-	-	0.003	-	-	0.006	0.004	-	-	-	-	<0.005
	Copper	mg/L	0.001	0.0013	2/1	0.2	0.4	20/1(#)	<0.001	<0.001	-	0.001	<0.001	<0.001	-	<0.001	-	<0.001	0.008	0.003	-	-	-	-	<0.005
	Iron	mg/L	0.01	0.3(#10)	0.3(#)	0.1		0.3	0.24	0.091	<0.01		<0.05	-	-	0.09	<0.01	-		<0.05	-	-	-	-	<0.25
	Magnesium	mg/L	0.5						-	-	-	31	8.5	-	-	-	-	-	41	39	-	-	-	-	-
	Manganese	mg/L	0.005	0.08(10)	0.5/0.1(#)	0.2		5/0.1(#)	-	-	<0.005	0.038	<0.005	-	-	-	<0.005	-	0.048	0.014	-	-	-	-	-
	Mercury	mg/L	0.00005	0.0004	0.01(#4)	0.002	0.002	0.01(#4)	<0.0001	<0.00005	-	<0.0001	<0.0001	<0.00005	-	<0.0001	-	<0.00005	<0.0001	<0.0001	-	-	-	-	<0.0001
	Molybdenum	mg/L	0.001	0.023(#10)	0.05	0.01	0.15	0.05	-	-	-		<0.005	-	-	-	-	-		<0.005	-	-	-	-	-
	Nickel	mg/L	0.001	0.07	0.02	1	1	0.2	0.008	0.009	-	0.058	0.029	0.003	-	0.015	-	0.028	0.011	0.058	-	-	-	-	0.011
	Phosphorus	mg/L	0.5						-	-	-	0.07	-	-	-	-	-	-	0.21	-	-	-	-	-	-
	Potassium	mg/L	0.5						-	-	-	<1	<0.5	-	-	-	-	-	2	1	-	-	-	-	-
	Selenium	mg/L	0.001	0.003(#10)	0.01	0.02	0.02	0.1	0.006	0.006	-		0.005	-	-	0.004	-	-		0.006	-	-	-	-	<0.005
	Silver	mg/L	0.001	0.0014	0.1				-	-	-		<0.005	-	-	-	-	-		<0.005	-	-	-	-	-
	Thallium	mg/L	0.001						-	-	-		<0.001	-	-	-	-	-		<0.001	-	-	-	-	-
	Tin	mg/L	0.001	0.01(#10)	12(#9)		12(#9)	12(#9)	-	-	-		<0.005	-	-	-	-	-		<0.005	-	-	-	-	-
	Vanadium	mg/L	0.001	0.1	0.086(#9)	0.1	0.1	0.086(#9)	-	-	-	<0.01	0.007	-	-	-	-	-	<0.01	0.01	-	-	-	-	-
	Zinc	mg/L	0.001	0.005(#7)	3	0.02	20	3	0.006	0.006	-	0.055	0.02	0.002	-	0.004	-	0.004	0.079	0.024	-	-	-	-	<0.005
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Pentachloronitrobenzene	µg/L	5		30				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
Organic	Methane	mg/L	0.005						-	-	-		-	-	-	-	<0.005	-		-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	a-BHC	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Aldrin	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Aldrin + Dieldrin	µg/L			0.3				-	-	-	<4	<0.2	-	-	-	-	-	<4	<0.2	-	-	-	-	-
	b-BHC	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	chlordane	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	Chlordane (cis)	µg/L							-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Chlordane (trans)	µg/L							-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	d-BHC	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	DDD	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	DDT	µg/L	0.1		9				-	-	-	<4	<0.1	-	-	-	-	-	<4	<0.1	-	-	-	-	-
	DDT+DDE+DDD	µg/L							-	-	-	<8	<0.3	-	-	-	-	-	<8	<0.3	-	-	-	-	-
	Dieldrin	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Endosulfan I	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Endosulfan II	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Endosulfan sulphate	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Endrin	µg/L	0.1	0.008					-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Endrin aldehyde	µg/L	0.1						-	-	-		<0.1	-	-	-	-	-		<0.1	-	-	-	-	-
	Endrin ketone	µg/L	0.1						-	-	-		<0.1	-	-	-	-	-		<0.1	-	-	-	-	-
	g-BHC (Lindane)	µg/L	0.1		10				-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Heptachlor	µg/L	0.1		0.3				-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Heptachlor epoxide	µg/L	0.1						-	-	-	<2	<0.1	-	-	-	-	-	<2	<0.1	-	-	-	-	-
	Methoxychlor	µg/L	0.1		300				-	-	-		<0.1	-	-	-	-	-		<0.1	-	-	-	-	-
	Toxaphene	mg/L	0.01						-	-	-		<0.01	-	-	-	-	-		<0.01	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW09	MW9-9.0	MW9-9.75	MW9-11.0	MW09	MW10	MW10	MW10	MW10	MW11	MW11	MW11	MW11	MW12	DUP (MW12)	MW12	MW12	Dup 1 (MW12)
Sampled Date	1/07/2014	16/07/2014	16/07/2014	16/07/2014	12/08/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	11/04/2014	22/05/2014	1/07/2014	12/08/2014	11/04/2014	11/04/2014	22/05/2014	1/07/2014	1/07/2014
SDG	4267	4375	4375	4375	4517	11/04/2014	22/05/2014	4273	4517	11/04/2014	22/05/2014	4267	4517	11/04/2014	11/04/2014	22/05/2014	4267	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 8	Round 8	Round 8	Round 9	Round 4	Round 6	Round 7	Round 9	Round 4	Round 6	Round 7	Round 9	Round 4	Round 4	Round 6	Round 7	Round 7
Herbicides	Dinoseb	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	µg/L	5		70				-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Trifluralin	mg/L	0.005		0.09				-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ammonia	mg/L	0.005	0.91				0.5	-	-	-	-	<0.005	-	-	-	<0.005	-	-	-	<0.005	-	-	-	-	-
	Ammonia as N	µg/L	10	910	412		412(#18)	412	-	-	-	-	-	-	<10	-	-	-	<10	-	-	-	<10	-	-
	Bicarbonate as CaCO3	mg/L	5						<5	-	-	-	-	-	-	250	-	-	-	18	-	-	-	590	600
	Chloride	mg/L	1			25-700(#17)		400(#4)	470	-	-	-	-	-	-	1,400	-	-	-	55	-	-	-	330	330
	Cyanide Total	mg/L	0.004	0.004	0.08		0.08(#18)	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/L	0.1		1.5	1	2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hydroxide	µg/L	5000						<5,000	-	-	-	-	-	-	<5,000	-	-	-	<5,000	-	-	-	<5,000	<5,000
	Ionic Balance	%							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	-	0.3	-	-
	Nitrate (as N)	mg/L	0.005	7.2(#15)	11.286	5(#)	90.293	112.866	0.29	-	-	-	0.48	-	6.2	3.9	5.6	-	1.8	1.7	2	-	-	4.6	3.6	3.6
	Nitrate (as NO3-)	mg/L			50		30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/L	0.005	0.06(#13)	0.912	3.04(#13)	9.119	9.119	-	-	-	-	-	-	0.05	-	-	-	0.02	-	-	-	-	<0.02	-	-
	Nitrogen (Total Oxidised)	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	100						-	-	-	-	-	-	6,200	-	-	-	1,800	-	-	-	-	4,700	-	-
	pH (Lab)	pH Unit	0.1		6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	-	-	-	-	5.2	-	-	-	7	-	-	-	4.7	-	-	-	-	-
	Phosphate total (P)	mg/L	0.05						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-
	Sodium	mg/L	0.5			115-460(#14)		300(#4)	-	-	-	-	-	-	770	-	-	-	130	-	-	-	490	-	-	-
	Sulphate	mg/L	1		500/250	1,000	1,000	400	200	-	-	-	-	-	-	220	-	-	-	210	-	-	-	200	200
	Sulphate as S	mg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TDS	mg/L	5					600	1,100	-	-	-	-	-	-	3,000	-	-	-	420	-	-	-	1,400	1,400
	TKN (as N)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/L	1						28	-	-	-	-	-	-	5	-	-	-	3	-	-	-	5	5
Lead	Lead	mg/L	0.001	0.0044	0.01	2	0.1	0.1	-	-	-	-	0.002	-	<0.001	-	<0.001	-	<0.001	-	<0.001	-	-	<0.001	-	-
MAH	1,2,4-trimethylbenzene	µg/L	1						-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	1,3,5-trimethylbenzene	µg/L	1						-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Isopropylbenzene	µg/L	1	30(#10)	450(#9)			450(#9)	-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	n-butylbenzene	µg/L	1						-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	µg/L	1						-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	µg/L	1						-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	µg/L	1						-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	µg/L	1	72(#13)	30/4		30/4	30/4	-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	tert-butylbenzene	µg/L	1						-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals	Aluminium	mg/L	0.01			5	5	0.2	-	-	-	-	-	-	0.21	-	-	-	0.25	-	-	-	0.34	-	-	-
	Antimony	mg/L	0.001		0.003				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/L	0.001	0.003(#7)	0.01	0.1	0.5	0.1	-	-	-	-	0.003	-	0.002	-	0.002	-	<0.001	-	<0.001	-	-	0.003	-	-
	Barium	mg/L	0.001	0.625(#6)	2		2(#18)	20	-	-	-	-	-	-	0.04	-	-	-	<0.02	-	-	-	-	<0.02	-	-
	Beryllium	mg/L	0.0005	0.00013(#10)	0.06	0.1	0.06(#18)	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/L	0.005	5.1(#10)	4	(#2)	5	40(#11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cadmium	mg/L	0.0001	0.0055	0.002	0.01	0.01	0.02	-	-	-	-	<0.0001	-	<0.0002	-	0.0002	-	<0.0002	-	<0.0001	-	-	<0.0002	-	-
	Calcium	mg/L	0.5				1000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/L	0.001	0.0044	0.05	0.1	0.005(#18)	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/L	0.001	0.005	0.05	0.1	1	0.5	-	-	-	-	0.005	-	<0.001	-	<0.001	-	<0.001	-	<0.001	-	-	<0.001	-	-
	Chromium (Trivalent)	mg/L		0.0274					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt	mg/L	0.001	0.001	0.06(#9)	0.05	1	0.06(#9)	-	-	-	-	-	-	0.002	-	-	-	0.001	-	-	-	-	<0.001	-	-
	Copper	mg/L	0.001	0.0013	2/1	0.2	0.4	20/1(#)	-	-	-	-	0.002	-	0.002	-	<0.001	-	<0.001	-	<0.001	-	-	<0.001	-	-
	Iron	mg/L	0.01	0.3(#10)	0.3(#)	0.1		0.3	0.069	-	-	-	-	-	0.1	<0.01	-	-	0.1	<0.01	-	-	-	0.18	<0.01	0.011
	Magnesium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/L	0.005	0.08(10)	0.5/0.1(#)	0.2		5/0.1(#)	0.014	-	-	-	-	-	-	0.022	-	-	-	<0.005	-	-	-	-	<0.005	<0.005
	Mercury	mg/L	0.00005	0.0004	0.01(#4)	0.002	0.002	0.01(#4)	-	-	-	-	<0.00005	-	<0.0001	-	<0.00005	-	<0.0001	-	<0.00005	-	-	<0.0001	-	-
	Molybdenum	mg/L	0.001	0.023(#10)	0.05	0.01	0.15	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/L	0.001	0.07	0.02	1	1	0.2	-	-	-	-	0.041	-	0.026	-	0.023	-	0.033	-	0.053	-	-	0.013	-	-
	Phosphorus	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Potassium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/L	0.001	0.003(#10)	0.01	0.02	0.02	0.1	-	-	-	-	-	-	0.005	-	-	-	0.002	-	-	-	-	0.016	-	-
	Silver	mg/L	0.001	0.0014	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Thallium	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/L	0.001	0.01(#10)	12(#9)		12(#9)	12(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/L	0.001	0.1	0.086(#9)	0.1	0.1	0.086(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Zinc	mg/L	0.001	0.005(#7)	3	0.02	20	3	-	-	-	-	0.016	-	0.009	-	0.005	-	0.01	-	0.016	-	-	0.003	-	-
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Pentachloronitrobenzene	µg/L	5		30				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
Organic	Methane	mg/L	0.005						<0.005	-	-	-	-	-	-	<0.005	-	-	-	<0.005	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	a-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Aldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Aldrin + Dieldrin	µg/L			0.3				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-
	b-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	chlordane	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	DDD	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	DDT	µg/L	0.1		9				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	DDT+DDE+DDD	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<15	-	-
	Dieldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Endosulfan I	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Endosulfan II	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Endosulfan sulphate	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Endrin	µg/L	0.1	0.008					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Endrin aldehyde	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Endrin ketone	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	g-BHC (Lindane)	µg/L	0.1		10				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Heptachlor	µg/L	0.1		0.3				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Heptachlor epoxide	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Methoxychlor	µg/L	0.1		300				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Toxaphene	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	Split 1 (MW12)	MW12	MW13	MW13	DUP (MW13)	Split (MW13)	MW13	MW13	MW13-9.9	MW13-10.65	MW13-11.35	MW13	MW14	MW14	MW14	MW15	MW15
Sampled Date	1/07/2014	12/08/2014	11/04/2014	24/04/2014	24/04/2014	24/04/2014	22/05/2014	2/07/2014	16/07/2014	16/07/2014	16/07/2014	6/08/2014	21/05/2014	3/07/2014	13/08/2014	21/05/2014	3/07/2014
SDG	152602	4517	11/04/2014	24/04/2014	24/04/2014	3794	22/05/2014	4273	4375	4375	4375	4495	21/05/2014	4290	4517	21/05/2014	4290

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 4	Round 5	Round 5	Round 5	Round 6	Round 7	Round 8	Round 8	Round 8	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
Herbicides	Dinoseb	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-	-
	Pronamide	µg/L	5		70				-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/L	0.005		0.09				-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ammonia	mg/L	0.005	0.91				0.5	-	<0.005	-	-	-	-	-	-	-	-	-	<0.005	-	-	<0.005	-	-
	Ammonia as N	µg/L	10	910	412		412(#18)	412	-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-	<10	-
	Bicarbonate as CaCO3	mg/L	5						560	-	-	-	-	-	-	180	-	-	-	-	-	710	-	-	540
	Chloride	mg/L	1			25-700(#17)		400(#4)	330	-	-	-	-	-	-	65	-	-	-	-	-	100	-	-	500
	Cyanide Total	mg/L	0.004	0.004	0.08		0.08(#18)	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/L	0.1		1.5	1	2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hydroxide	µg/L	5000						<5,000	-	-	-	-	-	-	<5,000	-	-	-	-	-	<5,000	-	-	<5,000
	Ionic Balance	%							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						-	-	-	-	-	-	<0.2	-	-	-	-	-	0.9	-	-	0.9	-
	Nitrate (as N)	mg/L	0.005	7.2(#15)	11.286	5(#)	90.293	112.866	-	16	-	-	-	-	<0.02	0.008	-	-	-	0.006	1.3	1.1	6.9	21	17
	Nitrate (as NO3-)	mg/L			50		30		17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/L	0.005	0.06(#13)	0.912	3.04(#13)	9.119	9.119	-	-	-	-	-	-	<0.02	-	-	-	-	-	<0.02	-	-	0.03	-
	Nitrogen (Total Oxidised)	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	100						-	-	-	-	-	-	<200	-	-	-	-	-	900	-	-	900	-
	pH (Lab)	pH Uni	0.1		6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	-	6.9	-	-	-	-	-	-	-	-	-	5.9	-	-	7.4	-	-
	Phosphate total (P)	mg/L	0.05						-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-
	Sodium	mg/L	0.5			115-460(#14)		300(#4)	-	-	-	-	-	-	110	-	-	-	-	-	360	-	-	490	-
	Sulphate	mg/L	1		500/250	1,000	1,000	400	190	-	-	-	-	-	-	15	-	-	-	-	-	75	-	-	160
	Sulphate as S	mg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TDS	mg/L	5					600	1,600	-	-	-	-	-	-	410	-	-	-	-	-	1,000	-	-	1,700
	TKN (as N)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/L	1						5	-	-	-	-	-	-	4	-	-	-	-	-	9	-	-	5
Lead	Lead	mg/L	0.001	0.0044	0.01	2	0.1	0.1	-	<0.001	-	-	-	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	<0.001	-
MAH	1,2,4-trimethylbenzene	µg/L	1						-	-	-	-	-	-	<1	-	<1	<1	<1	-	-	-	-	-	-
	1,3,5-trimethylbenzene	µg/L	1						-	-	-	-	-	-	<1	-	<1	<1	<1	-	-	-	-	-	-
	Isopropylbenzene	µg/L	1	30(#10)	450(#9)			450(#9)	-	-	-	-	-	-	<1	-	<1	<1	<1	-	-	-	-	-	-
	n-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-	-
	n-propylbenzene	µg/L	1						-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-	-
	p-isopropyltoluene	µg/L	1						-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-	-
	sec-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-	-
	Styrene	µg/L	1	72(#13)	30/4		30/4	30/4	-	-	-	-	-	-	<1	-	<1	<1	<1	-	-	-	-	-	-
	tert-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	<1	<1	<1	-	-	-	-	-	-
Metals	Aluminium	mg/L	0.01			5	5	0.2	-	-	-	-	-	-	0.53	-	-	-	-	-	0.4	-	-	0.36	-
	Antimony	mg/L	0.001		0.003				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/L	0.001	0.003(#7)	0.01	0.1	0.5	0.1	-	0.004	-	-	-	-	0.003	-	-	-	-	0.003	0.004	-	0.005	0.003	-
	Barium	mg/L	0.001	0.625(#6)	2		2(#18)	20	-	-	-	-	-	-	<0.02	-	-	-	-	-	0.02	-	-	0.04	-
	Beryllium	mg/L	0.0005	0.00013(#10)	0.06	0.1	0.06(#18)	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/L	0.005	5.1(#10)	4	(#2)	5	40(#11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cadmium	mg/L	0.0001	0.0055	0.002	0.01	0.01	0.02	-	<0.0001	-	-	-	-	<0.0002	-	-	-	-	<0.0001	<0.0002	-	<0.0001	<0.0002	-
	Calcium	mg/L	0.5				1000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/L	0.001	0.0044	0.05	0.1	0.005(#18)	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/L	0.001	0.005	0.05	0.1	1	0.5	-	<0.001	-	-	-	-	<0.001	-	-	-	-	<0.001	0.002	-	0.031	<0.001	-
	Chromium (Trivalent)	mg/L		0.0274					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt	mg/L	0.001	0.001	0.06(#9)	0.05	1	0.06(#9)	-	-	-	-	-	-	<0.001	-	-	-	-	-	<0.001	-	-	<0.001	-
	Copper	mg/L	0.001	0.0013	2/1	0.2	0.4	20/1(#)	-	0.002	-	-	-	-	<0.001	-	-	-	-	<0.001	<0.001	-	<0.001	<0.001	-
	Iron	mg/L	0.01	0.3(#10)	0.3(#)	0.1		0.3	0.03	-	-	-	-	-	0.24	<0.01	-	-	-	-	0.11	<0.01	-	0.11	<0.01
	Magnesium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/L	0.005	0.08(10)	0.5/0.1(#)	0.2		5/0.1(#)	<0.005	-	-	-	-	-	-	<0.005	-	-	-	-	-	0.008	-	-	<0.005
	Mercury	mg/L	0.00005	0.0004	0.01(#4)	0.002	0.002	0.01(#4)	-	<0.00005	-	-	-	-	<0.0001	-	-	-	-	<0.00005	<0.0001	-	<0.00005	<0.0001	-
	Molybdenum	mg/L	0.001	0.023(#10)	0.05	0.01	0.15	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/L	0.001	0.07	0.02	1	1	0.2	-	0.022	-	-	-	-	0.013	-	-	-	-	0.022	0.013	-	0.11	0.017	-
	Phosphorus	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Potassium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/L	0.001	0.003(#10)	0.01	0.02	0.02	0.1	-	-	-	-	-	-	<0.001	-	-	-	-	-	0.005	-	-	0.01	-
	Silver	mg/L	0.001	0.0014	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Thallium	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/L	0.001	0.01(#10)	12(#9)		12(#9)	12(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/L	0.001	0.1	0.086(#9)	0.1	0.1	0.086(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Zinc	mg/L	0.001	0.005(#7)	3	0.02	20	3	-	0.013	-	-	-	-	0.004	-	-	-	-	0.004	0.003	-	0.002	0.002	-
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	µg/L	5		30				-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
Organic	Methane	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	a-BHC	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Aldrin	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin	µg/L			0.3				-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-
	b-BHC	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	chlordane	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	DDD	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	DDT	µg/L	0.1		9				-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	DDT+DDE+DDD	µg/L							-	-	-	-	-	-	<15	-	-	-	-	-	-	-	-	-	-
	Dieldrin	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Endosulfan I	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Endosulfan II	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Endosulfan sulphate	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Endrin	µg/L	0.1	0.008					-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Endrin ketone	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	g-BHC (Lindane)	µg/L	0.1		10				-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Heptachlor	µg/L	0.1		0.3				-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	µg/L	0.1						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Methoxychlor	µg/L	0.1		300				-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Toxaphene	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW15	MW16	MW16	MW16	MW17	MW17	MW17	MW18	MW18	MW18	MW19	MW19	MW19	MW20	MW20	MW20	MW21	MW21
Sampled Date	13/08/2014	20/05/2014	1/07/2014	6/08/2014	20/05/2014	1/07/2014	13/08/2014	21/05/2014	3/07/2014	13/08/2014	20/05/2014	2/07/2014	13/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014
SDG	4517	20/05/2014	4267	4495	20/05/2014	4267	4517	21/05/2014	4290	4517	20/05/2014	4273	4517	21/05/2014	4273	4517	21/05/2014	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
Herbicides	Dinoseb	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-
	Pronamide	µg/L	5		70				-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Trifluralin	mg/L	0.005		0.09				-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ammonia	mg/L	0.005	0.91				0.5	<0.005	-	-	<0.005	-	-	0.006	-	-	0.022	-	-	<0.005	-	-	<0.005	-	-
	Ammonia as N	µg/L	10	910	412		412(#18)	412	-	-	-	-	-	-	-	<10	-	-	-	-	-	20	-	-	160	-
	Bicarbonate as CaCO3	mg/L	5						-	-	660	-	-	320	-	-	130	-	-	150	-	-	170	-	-	90
	Chloride	mg/L	1			25-700(#17)		400(#4)	-	-	1,200	-	-	78	-	-	20	-	-	20	-	-	43	-	-	50
	Cyanide Total	mg/L	0.004	0.004	0.08		0.08(#18)	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/L	0.1		1.5	1	2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hydroxide	µg/L	5000						-	-	<5,000	-	-	<5,000	-	-	<5,000	-	-	<5,000	-	-	<5,000	-	-	<5,000
	Ionic Balance	%							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						-	<0.2	-	-	<1	-	-	<0.2	-	-	<1	-	-	<0.2	-	-	3	-
	Nitrate (as N)	mg/L	0.005	7.2(#15)	11.286	5(#)	90.293	112.866	7.9	-	2.4	3.2	-	0.64	0.45	0.59	0.56	0.58	-	0.42	0.3	6	5	5.9	0.02	<0.005
	Nitrate (as NO3-)	mg/L			50		30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrite (as N)	mg/L	0.005	0.06(#13)	0.912	3.04(#13)	9.119	9.119	-	-	-	-	-	-	-	0.02	-	-	-	-	-	0.08	-	-	<0.02	-
	Nitrogen (Total Oxidised)	mg/L	0.005						-	3.8	-	-	1.4	-	-	-	-	-	1.7	-	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	100						-	3,800	-	-	1,400	-	-	<200	-	-	1,700	-	-	<200	-	-	3,200	-
	pH (Lab)	pH Uni	0.1		6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	7.1	-	-	7.1	-	-	6.7	-	-	6.4	-	-	6.4	-	-	6.2	-	-
	Phosphate total (P)	mg/L	0.05						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sodium	mg/L	0.5			115-460(#14)		300(#4)	-	900	-	-	210	-	-	79	-	-	90	-	-	120	-	-	120	-
	Sulphate	mg/L	1		500/250	1,000	1,000	400	-	-	160	-	-	180	-	-	52	-	-	44	-	-	-	97	-	-	110
	Sulphate as S	mg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TDS	mg/L	5					600	-	-	2,500	-	-	670	-	-	220	-	-	410	-	-	-	470	-	-	1,400
	TKN (as N)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/L	1						-	-	10	-	-	4	-	-	5	-	-	11	-	-	4	-	-	67
Lead	Lead	mg/L	0.001	0.0044	0.01	2	0.1	0.1	<0.001	0.009	-	<0.001	0.096	-	<0.001	<0.001	-	<0.001	0.056	-	<0.001	<0.001	-	<0.001	0.004	-
MAH	1,2,4-trimethylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-
	1,3,5-trimethylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-
	Isopropylbenzene	µg/L	1	30(#10)	450(#9)			450(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-
	n-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	µg/L	1	72(#13)	30/4		30/4	30/4	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-
	tert-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals	Aluminium	mg/L	0.01			5	5	0.2	-	9.2	-	-	48	-	-	0.08	-	-	48	-	-	0.07	-	-	0.73	-
	Antimony	mg/L	0.001		0.003				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/L	0.001	0.003(#7)	0.01	0.1	0.5	0.1	0.002	0.036	-	0.001	0.027	-	<0.001	0.001	-	0.001	0.065	-	<0.001	<0.001	-	<0.001	0.002	-
	Barium	mg/L	0.001	0.625(#6)	2		2(#18)	20	-	0.07	-	-	0.14	-	-	0.03	-	-	0.21	-	-	0.04	-	-	0.04	-
	Beryllium	mg/L	0.0005	0.00013(#10)	0.06	0.1	0.06(#18)	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/L	0.005	5.1(#10)	4	(#2)	5	40(#11)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cadmium	mg/L	0.0001	0.0055	0.002	0.01	0.01	0.02	<0.0001	<0.0002	-	<0.0001	<0.001	-	<0.0001	<0.0002	-	<0.0001	<0.001	-	<0.0001	<0.0002	-	<0.0001	<0.0002	-
	Calcium	mg/L	0.5				1000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/L	0.001	0.0044	0.05	0.1	0.005(#18)	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/L	0.001	0.005	0.05	0.1	1	0.5	0.001	0.021	-	<0.001	0.12	-	0.012	<0.001	-	<0.001	0.083	-	<0.001	<0.001	-	0.039	0.006	-
	Chromium (Trivalent)	mg/L		0.0274					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt	mg/L	0.001	0.001	0.06(#9)	0.05	1	0.06(#9)	-	0.002	-	-	0.012	-	-	<0.001	-	-	0.011	-	-	0.001	-	-	0.002	-
	Copper	mg/L	0.001	0.0013	2/1	0.2	0.4	20/1(#)	<0.001	0.034	-	<0.001	0.024	-	<0.001	<0.001	-	<0.001	0.021	-	<0.001	<0.001	-	0.001	0.004	-
	Iron	mg/L	0.01	0.3(#10)	0.3(#)	0.1		0.3	-	5	<0.01	-	35	0.021	-	<0.05	0.031	-	27	<0.01	-	<0.05	0.01	-	0.98	2.8
	Magnesium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/L	0.005	0.08(10)	0.5/0.1(#)	0.2		5/0.1(#)	-	-	0.014	-	-	0.008	-	-	0.01	-	-	0.005	-	-	0.023	-	-	0.022
	Mercury	mg/L	0.00005	0.0004	0.01(#4)	0.002	0.002	0.01(#4)	<0.00005	<0.0001	-	<0.00005	<0.0001	-	<0.00005	<0.0001	-	<0.00005	<0.0001	-	<0.00005	<0.0001	-	<0.00005	<0.0001	-
	Molybdenum	mg/L	0.001	0.023(#10)	0.05	0.01	0.15	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/L	0.001	0.07	0.02	1	1	0.2	0.02	0.014	-	0.024	0.061	-	0.064	0.012	-	0.03	0.062	-	0.027	0.017	-	0.19	0.031	-
	Phosphorus	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Potassium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/L	0.001	0.003(#10)	0.01	0.02	0.02	0.1	-	0.006	-	-	<0.001	-	-	0.001	-	-	<0.001	-	-	0.002	-	-	0.003	-
	Silver	mg/L	0.001	0.0014	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Thallium	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/L	0.001	0.01(#10)	12(#9)		12(#9)	12(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/L	0.001	0.1	0.086(#9)	0.1	0.1	0.086(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Zinc	mg/L	0.001	0.005(#7)	3	0.02	20	3	0.002	0.022	-	0.005	0.062	-	0.008	0.01	-	0.009	0.061	-	0.006	0.011	-	0.007	0.014	-
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Pentachloronitrobenzene	µg/L	5		30				-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
Organic	Methane	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	a-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Aldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Aldrin + Dieldrin	µg/L			0.3				-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-
	b-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	chlordane	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	DDD	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	DDT	µg/L	0.1		9				-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	DDT+DDE+DDD	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	<15	-	-	-	-
	Dieldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Endosulfan I	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Endosulfan II	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Endosulfan sulphate	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Endrin	µg/L	0.1	0.008					-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Endrin aldehyde	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Endrin ketone	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	g-BHC (Lindane)	µg/L	0.1		10				-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Heptachlor	µg/L	0.1		0.3				-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Heptachlor epoxide	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Methoxychlor	µg/L	0.1		300				-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-
	Toxaphene	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW21	MW22	MW22	MW22	MW23	MW23	Dup 2 (MW23)	Split 2 (MW23)	MW23	MW24	MW24	Dup 2 (MW24)	Split 2 (MW24)
Sampled Date	12/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014	1/07/2014	1/07/2014	13/08/2014	2/07/2014	13/08/2014	13/08/2014	13/08/2014
SDG	4517	21/05/2014	4273	4517	21/05/2014	4267	4267	152602	4517	4273	4517	4517	114589

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 7	Round 7	Round 9	Round 7	Round 9	Round 9	Round 9
Herbicides	Dinoseb	µg/L	100						-	<100	-	-	-	-	-	-	-	-	-	-	-
	Pronamide	µg/L	5		70				-	-	-	-	-	-	-	-	-	-	-	-	-
	Trifluralin	mg/L	0.005		0.09				-	-	-	-	-	-	-	-	-	-	-	-	-
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/L	20						-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Carbonate as CaCO3)	mg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (Hydroxide) as CaCO3	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Alkalinity (total) as CaCO3	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Ammonia	mg/L	0.005	0.91				0.5	0.077	-	-	0.011	-	-	-	-	0.016	-	<0.005	<0.005	<0.005
	Ammonia as N	µg/L	10	910	412		412(#18)	412	-	20	-	-	270	-	-	-	-	-	-	-	-
	Bicarbonate as CaCO3	mg/L	5						-	-	460	-	-	460	450	430	-	320	-	-	-
	Chloride	mg/L	1			25-700(#17)		400(#4)	-	-	1,500	-	-	2,100	2,100	1,800	-	53	-	-	-
	Cyanide Total	mg/L	0.004	0.004	0.08		0.08(#18)	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fluoride	mg/L	0.1		1.5	1	2	15	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hydroxide	µg/L	5000						-	-	<5,000	-	-	<5,000	<5,000	<5,000	-	<5,000	-	-	-
	Ionic Balance	%							-	-	-	-	-	-	-	-	-	-	-	-	-
	Kjeldahl Nitrogen Total	mg/L	0.2						-	<0.2	-	-	1	-	-	-	-	-	-	-	-
	Nitrate (as N)	mg/L	0.005	7.2(#15)	11.286	5(#)	90.293	112.866	0.052	15	12	16	6.5	6	5.9	-	7.6	0.32	0.47	0.49	0.52
	Nitrate (as NO3-)	mg/L			50		30		-	-	-	-	-	-	-	24	-	-	-	-	-
	Nitrite (as N)	mg/L	0.005	0.06(#13)	0.912	3.04(#13)	9.119	9.119	-	0.11	-	-	0.58	-	-	-	-	-	-	-	-
	Nitrogen (Total Oxidised)	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	100						-	<200	-	-	1,300	-	-	-	-	-	-	-	-
	pH (Lab)	pH Unit	0.1		6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	5.3	-	-	6.5	-	-	-	-	6.9	-	5.9	6	5.9
	Phosphate total (P)	mg/L	0.05						-	-	-	-	-	-	-	-	-	-	-	-	-
	Sodium	mg/L	0.5			115-460(#14)		300(#4)	-	910	-	-	1200	-	-	-	-	-	-	-	-
	Sulphate	mg/L	1		500/250	1,000	1,000	400	-	-	160	-	-	230	230	210	-	170	-	-	-
	Sulphate as S	mg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	TDS	mg/L	5					600	-	-	3,200	-	-	3,900	3,800	4,100	-	820	-	-	-
	TKN (as N)	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	TOC	mg/L	1						-	-	14	-	-	9	9	4	-	8	-	-	-
Lead	Lead	mg/L	0.001	0.0044	0.01	2	0.1	0.1	0.003	<0.001	-	<0.001	<0.001	-	-	-	<0.001	-	<0.001	<0.001	<0.001
MAH	1,2,4-trimethylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3,5-trimethylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Isopropylbenzene	µg/L	1	30(#10)	450(#9)			450(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-
	n-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	n-propylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	p-isopropyltoluene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	sec-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Styrene	µg/L	1	72(#13)	30/4		30/4	30/4	-	-	-	-	-	-	-	-	-	-	-	-	-
	tert-butylbenzene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
Metals	Aluminium	mg/L	0.01			5	5	0.2	-	0.16	-	-	<0.05	-	-	-	-	-	-	-	-
	Antimony	mg/L	0.001		0.003				-	-	-	-	-	-	-	-	-	-	-	-	-
	Arsenic	mg/L	0.001	0.003(#7)	0.01	0.1	0.5	0.1	0.004	0.003	-	0.003	0.002	-	-	-	0.004	-	0.002	0.001	0.002
	Barium	mg/L	0.001	0.625(#6)	2		2(#18)	20	-	0.07	-	-	0.11	-	-	-	-	-	-	-	-
	Beryllium	mg/L	0.0005	0.00013(#10)	0.06	0.1	0.06(#18)	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
	Boron	mg/L	0.005	5.1(#10)	4	(#2)	5	40(#11)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cadmium	mg/L	0.0001	0.0055	0.002	0.01	0.01	0.02	<0.0001	<0.0002	-	<0.0001	<0.0002	-	-	-	<0.0001	-	<0.0001	<0.0001	<0.0001
	Calcium	mg/L	0.5				1000		-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (hexavalent)	mg/L	0.001	0.0044	0.05	0.1	0.005(#18)	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/L	0.001	0.005	0.05	0.1	1	0.5	0.007	<0.001	-	0.002	<0.001	-	-	-	0.002	-	<0.001	0.003	0.003
	Chromium (Trivalent)	mg/L		0.0274					-	-	-	-	-	-	-	-	-	-	-	-	-
	Cobalt	mg/L	0.001	0.001	0.06(#9)	0.05	1	0.06(#9)	-	0.001	-	-	<0.001	-	-	-	-	-	-	-	-
	Copper	mg/L	0.001	0.0013	2/1	0.2	0.4	20/1(#)	0.004	<0.001	-	0.003	0.002	-	-	-	0.001	-	<0.001	<0.001	<0.001
	Iron	mg/L	0.01	0.3(#10)	0.3(#)	0.1		0.3	-	<0.05	<0.01	-	<0.05	<0.01	<0.01	0.03	-	<0.01	-	-	-
	Magnesium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Manganese	mg/L	0.005	0.08(10)	0.5/0.1(#)	0.2		5/0.1(#)	-	-	0.029	-	-	0.021	0.02	0.019	-	0.012	-	-	-
	Mercury	mg/L	0.00005	0.0004	0.01(#4)	0.002	0.002	0.01(#4)	<0.00005	<0.0001	-	<0.00005	<0.0001	-	-	-	<0.00005	-	<0.00005	<0.00005	<0.00005
	Molybdenum	mg/L	0.001	0.023(#10)	0.05	0.01	0.15	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nickel	mg/L	0.001	0.07	0.02	1	1	0.2	0.027	0.032	-	0.022	0.013	-	-	-	0.016	-	0.016	0.022	0.024
	Phosphorus	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Potassium	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	mg/L	0.001	0.003(#10)	0.01	0.02	0.02	0.1	-	0.015	-	-	0.014	-	-	-	-	-	-	-	-
	Silver	mg/L	0.001	0.0014	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-
	Thallium	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Tin	mg/L	0.001	0.01(#10)	12(#9)		12(#9)	12(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Vanadium	mg/L	0.001	0.1	0.086(#9)	0.1	0.1	0.086(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Zinc	mg/L	0.001	0.005(#7)	3	0.02	20	3	0.021	0.003	-	0.01	0.008	-	-	-	0.01	-	0.005	0.006	0.005
Nitroaromatics	2-Picoline	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-aminobiphenyl	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloronitrobenzene	µg/L	5		30				-	-	-	-	-	-	-	-	-	-	-	-	-
Organic	Methane	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	a-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin	µg/L			0.3				-	-	-	-	-	-	-	-	-	-	-	-	-
	b-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	chlordane	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (cis)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlordane (trans)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	d-BHC	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	DDD	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	DDT	µg/L	0.1		9				-	-	-	-	-	-	-	-	-	-	-	-	-
	DDT+DDE+DDD	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Dieldrin	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan I	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan II	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan sulphate	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin	µg/L	0.1	0.008					-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin ketone	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	g-BHC (Lindane)	µg/L	0.1		10				-	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor	µg/L	0.1		0.3				-	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	µg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Methoxychlor	µg/L	0.1		300				-	-	-	-	-	-	-	-	-	-	-	-	-
	Toxaphene	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW1	MW1	DUP (MW1)	split (MW1)	MW1	MW01	MW01	MW2	MW2	MW02	Dup (MW02)	Split (MW02)	MW2	MW02	MW02	MW3	MW3
Sampled Date	23/04/2012	4/09/2013	4/09/2013	4/09/2013	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	27/03/2014	27/03/2014	27/03/2014	21/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013
SDG	Alliance	4/09/2013	4/09/2013	2485	22/05/2014	4273	4517	Alliance	4/09/2013	3608	3608	107343	21/05/2014	4273	4517	Alliance	4/09/2013

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 1	Round 1	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 3	Round 3	Round 3	Round 6	Round 7	Round 9	Alliance Round	Round 1
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		30					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Bolstar (Sulprofos)	µg/L	2		10					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Chlorfenvinphos	µg/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Chlorpyrifos	µg/L	2	0.009	10				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Chlorpyrifos-methyl	mg/L							<0.002	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	<0.002	-
	Demeton-O	µg/L	2							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Diazinon	µg/L	2		4				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Dichlorvos	µg/L	2		5				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Dimethoate	µg/L			7				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Disulfoton	µg/L	2		4					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Ethion	µg/L	2		4				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Ethoprop	µg/L	2		1					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Fenitrothion	µg/L	2		7					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Fensulfothion	µg/L	2		10					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Fenthion	µg/L	2		7				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Malathion	µg/L			70				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Merphos	mg/L	0.002							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Methyl parathion	µg/L	2		0.7					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Mevinphos (Phosdrin)	µg/L	2		5					-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Naled (Dibrom)	µg/L	2							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Phorate	µg/L	2							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Prothiofos	µg/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Ronnel	µg/L	2							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Trichloronate	µg/L	2							-	-	-	-	-	-		-	-	-	-	-	-	-		-
PAH	Benzo[b+j]fluoranthene	mg/L	0.001							<0.001	<0.001	-	-	-	-		<0.001	-	-	-	-	-	-		<0.001
	7,12-dimethylbenz(a)anthracene	µg/L	5						<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	2,4-dimethylphenol	µg/L	1		360		360	360	<2	<3	<3	<1	-	-	-	<2	<3	-	-	-	-	-	-	<2	<3
	2,4-dinitrophenol	mg/L	0.01							<0.03	<0.03	<0.01	-	-	-		<0.03	-	-	-	-	-	-		<0.03
	2-chloronaphthalene	µg/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	2-methylnaphthalene	µg/L	5						<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	<2	<3	<3	<1	-	-	-	<2	<3	-	-	-	-	-	-	<2	<3
	2-nitrophenol	µg/L	1						<2	<10	<10	<1	-	-	-	<2	<10	-	-	-	-	-	-	<2	<10
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	<4	<6	<6	-	-	-	-	<4	<6	-	-	-	-	-	-	<4	<6
	3-methylcholanthrene	µg/L	5						<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
	4,6-Dinitro-2-methylphenol	µg/L	10							<30	<30	<10	-	-	-		<30	-	-	-	-	-	-		<30
	4-chloro-3-methylphenol	µg/L	1						<2	<10	<10	<1	-	-	-	<2	<10	-	-	-	-	-	-	<2	<10
	4-methylphenol	mg/L								-	-	<0.002	-	-	-		-	-	-	-	-	-	-		-
	4-nitrophenol	µg/L	10							<30	<30	<10	-	-	-		<30	-	-	-	-	-	-		<30
	Acenaphthene	µg/L	1						<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Acenaphthylene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Acetophenone	µg/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Anthracene	µg/L	1	0.4(#10)					<0.1	<5	<5	<1	-	-	-	<0.1	<5	-	-	-	-	-	-	<0.1	<5
	Benz(a)anthracene	µg/L	1						<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	<0.05	<1	<1	<1	-	-	-	<0.05	<1	-	-	-	-	-	-	<0.05	<1
	Carcinogenic PAHs as B(a)P TPE	µg/L							<0.172	<2.42	<2.42	<2.22	-	-	-	<0.172	<2.42	-	-	-	-	-	-	<0.172	<2.42
	Benzo(b)&(k)fluoranthene	µg/L							<0.1	-	-	<2	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
	Benzo(b)fluoranthene	µg/L							<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
	Benzo(g,h,i)perylene	µg/L	1						<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Benzo(k)fluoranthene	µg/L	1							<1	<1	-	-	-	-		<1	-	-	-	-	-	-		<1
	Chrysene	µg/L	1						<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Dibenz(a,h)anthracene	µg/L	1						<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1						<0.1	<1	<1	<1	-	-	-	<0.1	<1	-	-	-	-	-	-	<0.1	<1
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	<0.1	<1	<1	<1	<20	<1	<1	<0.1	<1	-	-	-	<20	<1	<1	<0.1	<1
	PAHs (Sum of total)	µg/L	1		0.01				<0.1	<5	<5	-	-	-	-	<0.1	<5	-	-	-	-	-	-	<0.1	<5
	Phenanthrene	µg/L	1	2(#10)					<0.1	<5	<5	<1	-	-	-	<0.1	<5	-	-	-	-	-	-	<0.1	<5
	Phenol	µg/L	1	400					<2	<3	<3	<1	-	-	-	<2	<3	-	-	-	-	-	-	<2	<3
	Pyrene	µg/L	1						<0.1	<5	<5	<1	-	-	-	<0.1	<5	-	-	-	-	-	-	<0.1	<5
Pesticides	Chlorobenzilate	µg/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Methacrylonitrile	µg/L								-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Pirimphos-ethyl	µg/L			0.5				<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100							<100	<100	-	-	-	-		<100	-	-	-	-	-	-		<100
	Phenols (Total Halogenated)	mg/L	0.01							<0.01	<0.01	-	-	-	-		<0.01	-	-	-	-	-	-		<0.01
	Phenols (Total Non Halogenated)	mg/L	0.1							<0.1	<0.1	-	-	-	-		<0.1	-	-	-	-	-	-		<0.1
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				<10	<5	<5	<50	-	-	-	<10	<5	-	-	-	-	-	-	<10	<5
	Butyl benzyl phthalate	µg/L	5						<2	<5	<5	<10	-	-	-	<2	<5	-	-	-	-	-	-	<2	<5
	Diethylphthalate	µg/L	5						<2	<5	<5	<10	-	-	-	<2	<5	-	-	-	-	-	-	<2	<5
	Dimethyl phthalate	µg/L	5						<2	<5	<5	<10	-	-	-	<2	<5	-	-	-	-	-	-	<2	<5
	Di-n-butyl phthalate	µg/L	5						<2	<5	<5	<50	-	-	-	<2	<5	-	-	-	-	-	-	<3	<5
	Di-n-octyl phthalate	µg/L	5						<2	<5	<5	<10	-	-	-	<2	<5	-	-	-	-	-	-	<2	<5
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1							<1	<1	<2	-	-	-		<1	-	-	-	-	-	-		<1
	Arochlor 1221	µg/L	1							<1	<1	<2	-	-	-		<1	-	-	-	-	-	-		<1
	Arochlor 1232	µg/L	1							<1	<1	<2	-	-	-		<1	-	-	-	-	-	-		<1
	Arochlor 1242	µg/L	1							<1	<1	<2	-	-	-		<1	-	-	-	-	-	-		<1
	Arochlor 1248	µg/L	1							<1	<1	<2	-	-	-		<1	-	-	-	-	-	-		<1
	Arochlor 1254	µg/L	1							<1	<1	<2	-	-	-		<1	-	-	-	-	-	-		<1
	Arochlor 1260	µg/L	1							<1	<1	<2	-	-	-		<1	-	-	-	-	-	-		<1
	PCBs (Sum of total)	µg/L	1							<1	<1	-	-	-	-		<1	-	-	-	-	-	-		<1
Solvents	Methyl Ethyl Ketone	µg/L	1						<50	<1	<1	-	-	-	-	<50	<1	-	-	-	-	-	-	<50	<1
	2-Ethyl Hexyl Acrylate	mg/L	0.5							-	-	-	<0.5	-	-		-	-	-	-	<0.5	-	-		-
	2-hexanone (MBK)	µg/L							<50	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<50	-
	4-Methyl-2-pentanone	µg/L	1						<50	<1	<1	-	-	-	-	<50	<1	-	-	-	-	-	-	<50	<1
	Acetone	mg/L	0.001							<0.001	<0.001	-	-	-	-		<0.001	-	-	-	-	-	-		<0.001
	Acrylonitrile	µg/L								-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Allyl chloride	mg/L	0.001							<0.001	<0.001	-	-	-	-		<0.001	-	-	-	-	-	-		<0.001
	Carbon disulfide	µg/L	1						<5	<1	<1	-	-	<1	-	<5	<1	-	-	-	-	<1	-	<5	<1
	Cyclohexane	mg/L	0.001							-	-	<0.001	-	-	-		-	-	-	-	-	-	-		-
	Isophorone	µg/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	MTBE	mg/L	0.001							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Vinyl acetate	µg/L							<50	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<50	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW3	MW03	MW03	MW4	MW4	MW4	MW4	MW04	MW5	MW5	MW5	MW05	MW6	MW6	MW06	MW7	MW7	MW7
Sampled Date	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	4/06/2014	4/06/2014	2/07/2014	23/04/2012	4/09/2013	21/05/2014	4/07/2014	23/04/2012	22/05/2014	2/07/2014	23/04/2012	4/09/2013	22/05/2014
SDG	22/05/2014	4273	4517	Alliance	4/09/2013	4116	5/06/2014	4273	Alliance	4/09/2013	21/05/2014	4293	Alliance	22/05/2014	4273	Alliance	4/09/2013	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 6	Round 7	Alliance Round	Round 6	Round 7	Alliance Round	Round 1	Round 6
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		30				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Bolstar (Sulprofos)	µg/L	2		10				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Chlorfenvinphos	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Chlorpyrifos	µg/L	2	0.009	10				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Chlorpyrifos-methyl	mg/L							-	-	-	<0.002	-	-	-	-	<0.002	-	-	-	<0.002	-	-	<0.002	-	-
	Demeton-O	µg/L	2						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Diazinon	µg/L	2		4				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Dichlorvos	µg/L	2		5				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Dimethoate	µg/L			7				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Disulfoton	µg/L	2		4				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Ethion	µg/L	2		4				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Ethoprop	µg/L	2		1				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Fenitrothion	µg/L	2		7				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Fensulfothion	µg/L	2		10				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Fenthion	µg/L	2		7				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Malathion	µg/L			70				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Merphos	mg/L	0.002						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Methyl parathion	µg/L	2		0.7				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Mevinphos (Phosdrin)	µg/L	2		5				-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Naled (Dibrom)	µg/L	2						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Phorate	µg/L	2						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Prothiofos	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Ronnel	µg/L	2						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Trichloronate	µg/L	2						-	-	-		-	-	-	-		-	-	-		-	-		-	-
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	-	-		<0.001	-	<0.001	-		<0.001	-	-		-	-		<0.001	-
	7,12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	<0.1	-	-	<5	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-		-	-	<5	-		-	-	-		-	-		-	-
	2,4-dimethylphenol	µg/L	1		360		360	360	-	-	-	<2	<3	-	<3	-	<2	<3	-	-	<2	-	-	<2	<3	-
	2,4-dinitrophenol	mg/L	0.01						-	-	-		<0.03	-	<0.03	-		<0.03	-	-		-	-		<0.03	-
	2-chloronaphthalene	µg/L	5						-	-	-		-	-	<5	-		-	-	-		-	-		-	-
	2-methylnaphthalene	µg/L	5						-	-	-	<0.1	-	-	<5	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	-	-	-	<2	<3	-	<3	-	<2	<3	-	-	<2	-	-	<2	<3	-
	2-nitrophenol	µg/L	1						-	-	-	<2	<10	-	<10	-	<2	<10	-	-	<2	-	-	<2	<10	-
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	-	-	-	<4	<6	-	<6	-	<4	<6	-	-	<4	-	-	<4	<6	-
	3-methylcholanthrene	µg/L	5						-	-	-	<0.1	-	-	<5	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
	4,6-Dinitro-2-methylphenol	µg/L	10						-	-	-		<30	-	<30	-		<30	-	-		-	-		<30	-
	4-chloro-3-methylphenol	µg/L	1						-	-	-	<2	<10	-	<10	-	<2	<10	-	-	<2	-	-	<2	<10	-
	4-methylphenol	mg/L							-	-	-		-	-	-	-		-	-	-		-	-		-	-
	4-nitrophenol	µg/L	10						-	-	-		<30	-	<30	-		<30	-	-		-	-		<30	-
	Acenaphthene	µg/L	1						-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Acenaphthylene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Acetophenone	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	Anthracene	µg/L	1	0.4(#10)					-	-	-	<0.1	<5	-	<1	-	<0.1	<5	-	-	<0.1	-	-	<0.1	<5	-
	Benz(a)anthracene	µg/L	1						-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	-	-	-	<0.05	<1	-	<1	-	<0.05	<1	-	-	<0.05	-	-	<0.05	<1	-
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	-	-	<0.172	<2.42	-	<2.42	-	<0.172	<2.42	-	-	<0.172	-	-	<0.172	<2.42	-
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
	Benzo(b)fluoranthene	µg/L							-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
	Benzo(g,h,i)perylene	µg/L	1						-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Benzo(k)fluoranthene	µg/L	1						-	-	-		<1	-	<1	-		<1	-	-		-	-		<1	-
	Chrysene	µg/L	1						-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Dibenz(a,h)anthracene	µg/L	1						-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	-	-	<0.1	<1	-	<1	-	<0.1	<1	-	-	<0.1	-	-	<0.1	<1	-
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	<20	<1	<1	<0.1	<1	-	<1	<1	<0.1	<1	<20	<1	<0.1	<20	<1	<0.1	<1	<20
	PAHs (Sum of total)	µg/L	1		0.01				-	-	-	<0.1	<5	-	-	-	<0.1	<5	-	-	<0.1	-	-	<0.1	<5	-
	Phenanthrene	µg/L	1	2(#10)					-	-	-	<0.1	<5	-	<1	-	<0.1	<5	-	-	<0.1	-	-	<0.1	<5	-
	Phenol	µg/L	1	400					-	-	-	<2	<3	-	<3	-	<2	<3	-	-	<2	-	-	<2	<3	-
	Pyrene	µg/L	1						-	-	-	<0.1	<5	-	<1	-	<0.1	<5	-	-	<0.1	-	-	<0.1	<5	-
Pesticides	Chlorobenzilate	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Methacrylonitrile	µg/L							-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Pirimphos-ethyl	µg/L			0.5				-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	-	-		<100	-	-	-		<100	-	-		-	-		<100	-
	Phenols (Total Halogenated)	mg/L	0.01						-	-	-		<0.01	-	-	-		<0.01	-	-		-	-		<0.01	-
	Phenols (Total Non Halogenated)	mg/L	0.1						-	-	-		<0.1	-	-	-		<0.1	-	-		-	-		<0.1	-
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				-	-	-	<10	<5	-	<5	-	<10	<5	-	-	<10	-	-	<10	<5	-
	Butyl benzyl phthalate	µg/L	5						-	-	-	<2	<5	-	<5	-	<2	<5	-	-	<2	-	-	<2	<5	-
	Diethylphthalate	µg/L	5						-	-	-	<2	<5	-	<5	-	<2	<5	-	-	<2	-	-	<2	<5	-
	Dimethyl phthalate	µg/L	5						-	-	-	<2	<5	-	<5	-	<2	<5	-	-	<2	-	-	<2	<5	-
	Di-n-butyl phthalate	µg/L	5						-	-	-	<2	<5	-	<5	-	<2	<5	-	-	<2	-	-	<2	<5	-
	Di-n-octyl phthalate	µg/L	5						-	-	-	<2	<5	-	<5	-	<2	<5	-	-	<2	-	-	<2	<5	-
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
	Arochlor 1221	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
	Arochlor 1232	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
	Arochlor 1242	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
	Arochlor 1248	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
	Arochlor 1254	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
	Arochlor 1260	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
	PCBs (Sum of total)	µg/L	1						-	-	-		<1	-	-	-		<1	-	-		<1	-		<1	-
Solvents	Methyl Ethyl Ketone	µg/L	1						-	-	-	<50	<1	-	<1	-	<50	<1	-	-	<50	-	-	<50	<1	-
	2-Ethyl Hexyl Acrylate	mg/L	0.5						<0.5	-	-		-	-	<0.5	-		-	<0.5	-		<0.5	-		-	<0.5
	2-hexanone (MBK)	µg/L							-	-	-	<50	-	-	-	-	<50	-	-	-	<50	-	-	<50	-	-
	4-Methyl-2-pentanone	µg/L	1						-	-	-	<50	<1	-	<1	-	<50	<1	-	-	<50	-	-	<50	<1	-
	Acetone	mg/L	0.001						-	-	-		<0.001	-	<0.001	-		<0.001	-	-		-	-		<0.001	-
	Acrylonitrile	µg/L							-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Allyl chloride	mg/L	0.001						-	-	-		<0.001	-	<0.001	-		<0.001	-	-		-	-		<0.001	-
	Carbon disulfide	µg/L	1						-	<1	-	<5	<1	-	<1	<1	<5	<1	-	<1	<5	-	<1	<5	<1	-
	Cyclohexane	mg/L	0.001						-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Isophorone	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	MTBE	mg/L	0.001						-	-	-		-	-	<0.001	-		-	-	-		-	-		-	-
	Vinyl acetate	µg/L							-	-	-	<50	-	-	-	-	<50	-	-	-	<50	-	-	<50	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	DUP (MW07)	Split (MW07)	MW07	MW8	MW8	MW08	MW8	MW8	MW08	MW08	MW9	MW9	MW9	DUP (MW09)	Split (MW9)	MW9	MW9
Sampled Date	22/05/2014	22/05/2014	3/07/2014	23/04/2012	4/09/2013	27/03/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	24/04/2012	4/09/2013	20/03/2014	20/03/2014	20/03/2014	11/04/2014	22/05/2014
SDG	22/05/2014	4021	4290	Alliance	4/09/2013	3608	11/04/2014	22/05/2014	4273	4517	Alliance	4/09/2013	20/03/2014	20/03/2014	3549	11/04/2014	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 3	Round 4	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 2	Round 2	Round 2	Round 4	Round 6
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		30				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Bolstar (Sulprofos)	µg/L	2		10				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Chlorfenvinphos	µg/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Chlorpyrifos	µg/L	2	0.009	10				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/L							-	-	-	<0.002	-	-	-	-	-	-	<0.002	-	-	-	-	-	-
	Demeton-O	µg/L	2						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Diazinon	µg/L	2		4				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Dichlorvos	µg/L	2		5				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Dimethoate	µg/L			7				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Disulfoton	µg/L	2		4				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Ethion	µg/L	2		4				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Ethoprop	µg/L	2		1				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Fenitrothion	µg/L	2		7				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Fensulfothion	µg/L	2		10				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Fenthion	µg/L	2		7				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Malathion	µg/L			70				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Merphos	mg/L	0.002						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Methyl parathion	µg/L	2		0.7				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Mevinphos (Phosdrin)	µg/L	2		5				-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Naled (Dibrom)	µg/L	2						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Phorate	µg/L	2						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Prothiofos	µg/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Ronnel	µg/L	2						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Trichloronate	µg/L	2						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	-	-		<0.001	-	-	-	-	-		<0.001	-	-	-	-	<0.001
	7,12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	2,4-dimethylphenol	µg/L	1		360		360	360	-	-	-	<2	<3	-	-	-	-	-	<2	<3	-	-	-	-	<3
	2,4-dinitrophenol	mg/L	0.01						-	-	-		<0.03	-	-	-	-	-		<0.03	-	-	-	-	<0.03
	2-chloronaphthalene	µg/L	5						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	2-methylnaphthalene	µg/L	5						-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	-	-	-	<2	<3	-	-	-	-	-	<2	<3	-	-	-	-	<3
	2-nitrophenol	µg/L	1						-	-	-	<2	<10	-	-	-	-	-	<2	<10	-	-	-	-	<10
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	-	-	-	<4	<6	-	-	-	-	-	<4	<6	-	-	-	-	<6
	3-methylcholanthrene	µg/L	5						-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	µg/L	10						-	-	-		<30	-	-	-	-	-		<30	-	-	-	-	<30
	4-chloro-3-methylphenol	µg/L	1						-	-	-	<2	<10	-	-	-	-	-	<2	<10	-	-	-	-	<10
	4-methylphenol	mg/L							-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	4-nitrophenol	µg/L	10						-	-	-		<30	-	-	-	-	-		<30	-	-	-	-	<30
	Acenaphthene	µg/L	1						-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Acenaphthylene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Acetophenone	µg/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Anthracene	µg/L	1	0.4(#10)					-	-	-	<0.1	<5	-	-	-	-	-	<0.1	<5	-	-	-	-	<1
	Benz(a)anthracene	µg/L	1						-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	-	-	-	<0.05	<1	-	-	-	-	-	<0.05	<1	-	-	-	-	<1
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	-	-	<0.172	<2.42	-	-	-	-	-	<0.172	<2.42	-	-	-	-	<2.42
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
	Benzo(b)fluoranthene	µg/L							-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
	Benzo(g,h,i)perylene	µg/L	1						-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Benzo(k)fluoranthene	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	<1
	Chrysene	µg/L	1						-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Dibenz(a,h)anthracene	µg/L	1						-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	-	-	<0.1	<1	-	-	-	-	-	<0.1	<1	-	-	-	-	<1
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	<20	<1	<1	<0.1	<1	-	<20	<20	<1	<1	<0.1	<1	<20	<20	<1	<20	<1
	PAHs (Sum of total)	µg/L	1		0.01				-	-	-	<0.1	<5	-	-	-	-	-	<0.1	<5	-	-	-	-	<1
	Phenanthrene	µg/L	1	2(#10)					-	-	-	<0.1	<5	-	-	-	-	-	<0.1	<5	-	-	-	-	<1
	Phenol	µg/L	1	400					-	-	-	<2	<3	-	-	-	-	-	<2	<3	-	-	-	-	<3
	Pyrene	µg/L	1						-	-	-	<0.1	<5	-	-	-	-	-	<0.1	<5	-	-	-	-	<1
Pesticides	Chlorobenzilate	µg/L							-	-	-	<2		-	-	-	-	-	<2		-	-	-	-	
	Methacrylonitrile	µg/L							-	<5,000	-		-	-	-	-	-	-		-	-	-	-	-	-
	Pirimphos-ethyl	µg/L			0.5				-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	-	-		<100	-	-	-	-	-		<100	-	-	-	-	<100
	Phenols (Total Halogenated)	mg/L	0.01						-	-	-		<0.01	-	-	-	-	-		<0.01	-	-	-	-	<0.01
	Phenols (Total Non Halogenated)	mg/L	0.1						-	-	-		<0.1	-	-	-	-	-		<0.1	-	-	-	-	<0.1
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				-	-	-	<10	<10	-	-	-	-	-	<10	<5	-	-	-	-	-
	Butyl benzyl phthalate	µg/L	5						-	-	-	<2	<5	-	-	-	-	-	<2	<5	-	-	-	-	-
	Diethylphthalate	µg/L	5						-	-	-	<2	<5	-	-	-	-	-	<2	<5	-	-	-	-	-
	Dimethyl phthalate	µg/L	5						-	-	-	<2	<5	-	-	-	-	-	<2	<5	-	-	-	-	-
	Di-n-butyl phthalate	µg/L	5						-	-	-	<2	<5	-	-	-	-	-	<2	<5	-	-	-	-	-
	Di-n-octyl phthalate	µg/L	5						-	-	-	<2	<5	-	-	-	-	-	<2	<5	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	Arochlor 1221	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	Arochlor 1232	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	Arochlor 1242	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	Arochlor 1248	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	Arochlor 1254	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	Arochlor 1260	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
	PCBs (Sum of total)	µg/L	1						-	-	-		<1	-	-	-	-	-		<1	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	µg/L	1						-	-	-	<50	<1	-	-	-	-	-	<50	<1	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/L	0.5						<0.5	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	2-hexanone (MBK)	µg/L							-	-	-	<50	-	-	-	-	-	-	<50	-	-	-	-	-	-
	4-Methyl-2-pentanone	µg/L	1						-	-	-	<50	<1	-	-	-	-	-	<50	<1	-	-	-	-	-
	Acetone	mg/L	0.001						-	-	-		<0.001	-	-	-	-	-		<0.001	-	-	-	-	-
	Acrylonitrile	µg/L							-	<5,000	-		-	-	-	-	-	-		-	-	-	-	-	-
	Allyl chloride	mg/L	0.001						-	-	-		<0.001	-	-	-	-	-		<0.001	-	-	-	-	-
	Carbon disulfide	µg/L	1						-	-	<1	<5	<1	-	-	-	<1	-	<5	<1	-	-	-	-	-
	Cyclohexane	mg/L	0.001						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Isophorone	µg/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	MTBE	mg/L	0.001						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Vinyl acetate	µg/L							-	-	-	<50	-	-	-	-	-	-	<50	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW09	MW9-9.0	MW9-9.75	MW9-11.0	MW09	MW10	MW10	MW10	MW10	MW11	MW11	MW11	MW11	MW12	DUP (MW12)	MW12	MW12	Dup 1 (MW12)
Sampled Date	1/07/2014	16/07/2014	16/07/2014	16/07/2014	12/08/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	11/04/2014	22/05/2014	1/07/2014	12/08/2014	11/04/2014	11/04/2014	22/05/2014	1/07/2014	1/07/2014
SDG	4267	4375	4375	4375	4517	11/04/2014	22/05/2014	4273	4517	11/04/2014	22/05/2014	4267	4517	11/04/2014	11/04/2014	22/05/2014	4267	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 8	Round 8	Round 8	Round 9	Round 4	Round 6	Round 7	Round 9	Round 4	Round 6	Round 7	Round 9	Round 4	Round 4	Round 6	Round 7	Round 7
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		30				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Bolstar (Sulprofos)	µg/L	2		10				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Chlorfenvinphos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	µg/L	2	0.009	10				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Chlorpyrifos-methyl	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Demeton-O	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Diazinon	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Dichlorvos	µg/L	2		5				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Dimethoate	µg/L			7				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Disulfoton	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Ethion	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Ethoprop	µg/L	2		1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Fenitrothion	µg/L	2		7				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Fensulfothion	µg/L	2		10				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Fenthion	µg/L	2		7				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Malathion	µg/L			70				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Merphos	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-
	Methyl parathion	µg/L	2		0.7				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Mevinphos (Phosdrin)	µg/L	2		5				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Naled (Dibrom)	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Phorate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Prothiofos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ronnel	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
	Trichloronate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
	7,12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	2,4-dimethylphenol	µg/L	1		360		360	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-
	2,4-dinitrophenol	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-
	2-chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	2-methylnaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-
	2-nitrophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-
	3-methylcholanthrene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	4,6-Dinitro-2-methylphenol	µg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<30	-	-
	4-chloro-3-methylphenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-
	4-methylphenol	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	µg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<30	-	-
	Acenaphthene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Acenaphthylene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Acetophenone	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Anthracene	µg/L	1	0.4(#10)					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Benz(a)anthracene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2.42	-	-
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Benzo(k)fluoranthene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Chrysene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Dibenz(a,h)anthracene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	<1	<1	<1	<1	<1	<20	<20	<1	<1	<20	<20	<1	<1	<20	<20	<1	<1	<1
	PAHs (Sum of total)	µg/L	1		0.01				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenanthrene	µg/L	1	2(#10)					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Phenol	µg/L	1	400					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-
	Pyrene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
Pesticides	Chlorobenzilate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methacrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	µg/L			0.5				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Butyl benzyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Diethylphthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Dimethyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Di-n-butyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Di-n-octyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	Arochlor 1221	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	Arochlor 1232	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	Arochlor 1242	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	Arochlor 1248	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	Arochlor 1254	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	Arochlor 1260	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
	PCBs (Sum of total)	µg/L	1						-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	2-Ethyl Hexyl Acrylate	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-
	2-hexanone (MBK)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-
	Acetone	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
	Acrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
	Carbon disulfide	µg/L	1						<1	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	<1	<1	<1
	Cyclohexane	mg/L	0.001						-	<0.001	<0.001	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Isophorone	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MTBE	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
	Vinyl acetate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	Split 1 (MW12)	MW12	MW13	MW13	DUP (MW13)	Split (MW13)	MW13	MW13	MW13-9.9	MW13-10.65	MW13-11.35	MW13	MW14	MW14	MW14	MW15	MW15
Sampled Date	1/07/2014	12/08/2014	11/04/2014	24/04/2014	24/04/2014	24/04/2014	22/05/2014	2/07/2014	16/07/2014	16/07/2014	16/07/2014	6/08/2014	21/05/2014	3/07/2014	13/08/2014	21/05/2014	3/07/2014
SDG	152602	4517	11/04/2014	24/04/2014	24/04/2014	3794	22/05/2014	4273	4375	4375	4375	4495	21/05/2014	4290	4517	21/05/2014	4290

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 4	Round 5	Round 5	Round 5	Round 6	Round 7	Round 8	Round 8	Round 8	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		30				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Bolstar (Sulprofos)	µg/L	2		10				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Chlorfenvinphos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	µg/L	2	0.009	10				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Demeton-O	µg/L	2						-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Diazinon	µg/L	2		4				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	µg/L	2		5				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Dimethoate	µg/L			7				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Disulfoton	µg/L	2		4				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Ethion	µg/L	2		4				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Ethoprop	µg/L	2		1				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Fenitrothion	µg/L	2		7				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Fensulfothion	µg/L	2		10				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Fenthion	µg/L	2		7				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Malathion	µg/L			70				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Merphos	mg/L	0.002						-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-
	Methyl parathion	µg/L	2		0.7				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Mevinphos (Phosdrin)	µg/L	2		5				-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Naled (Dibrom)	µg/L	2						-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Phorate	µg/L	2						-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Prothiofos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ronnel	µg/L	2						-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
	Trichloronate	µg/L	2						-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	-	-	-	-	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-
	7.12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	µg/L	1		360		360	360	-	-	-	-	-	-	<3	-	-	-	-	-	<3	-	-	-	-
	2,4-dinitrophenol	mg/L	0.01						-	-	-	-	-	-	<0.03	-	-	-	-	-	<0.03	-	-	-	-
	2-chloronaphthalene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	-	-	-	-	-	-	<3	-	-	-	-	-	<3	-	-	-	-
	2-nitrophenol	µg/L	1						-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-	-	-
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	-	-	-	-	-	-	<6	-	-	-	-	-	<6	-	-	-	-
	3-methylcholanthrene	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	4.6-Dinitro-2-methylphenol	µg/L	10						-	-	-	-	-	-	<30	-	-	-	-	-	<30	-	-	-	-
	4-chloro-3-methylphenol	µg/L	1						-	-	-	-	-	-	<10	-	-	-	-	-	<10	-	-	-	-
	4-methylphenol	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	µg/L	10						-	-	-	-	-	-	<30	-	-	-	-	-	<30	-	-	-	-
	Acenaphthene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Acenaphthylene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Acetophenone	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Anthracene	µg/L	1	0.4(#10)					-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Benz(a)anthracene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	-	-	-	-	-	<2.42	-	-	-	-	-	<2.42	-	-	-	-
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Benzo(k)fluoranthene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Chrysene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Dibenz(a,h)anthracene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	<1	<1	<20	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<20	<1
	PAHs (Sum of total)	µg/L	1		0.01				-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-
	Phenanthrene	µg/L	1	2(#10)					-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
	Phenol	µg/L	1	400					-	-	-	-	-	-	<3	-	-	-	-	-	<3	-	-	-	-
	Pyrene	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	<1	-	-	-	-
Pesticides	Chlorobenzilate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methacrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	µg/L			0.5				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	<100	-	-	-	-
	Phenols (Total Halogenated)	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-
	Phenols (Total Non Halogenated)	mg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	µg/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	µg/L	1						-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-
	Acetone	mg/L	0.001						-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
	Acrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/L	0.001						-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	µg/L	1						-	-	-	-	-	-	<1	<1	-	-	-	-	-	<1	-	-	<1
	Cyclohexane	mg/L	0.001						-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	-	-	-	-	-	-
	Isophorone	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MTBE	mg/L	0.001						<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
	Vinyl acetate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW15	MW16	MW16	MW16	MW17	MW17	MW17	MW18	MW18	MW18	MW19	MW19	MW19	MW20	MW20	MW20	MW21	MW21
Sampled Date	13/08/2014	20/05/2014	1/07/2014	6/08/2014	20/05/2014	1/07/2014	13/08/2014	21/05/2014	3/07/2014	13/08/2014	20/05/2014	2/07/2014	13/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014
SDG	4517	20/05/2014	4267	4495	20/05/2014	4267	4517	21/05/2014	4290	4517	20/05/2014	4273	4517	21/05/2014	4273	4517	21/05/2014	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		30				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Bolstar (Sulprofos)	µg/L	2		10				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Chlorfenvinphos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chlorpyrifos	µg/L	2	0.009	10				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Chlorpyrifos-methyl	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Demeton-O	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Diazinon	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Dichlorvos	µg/L	2		5				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Dimethoate	µg/L			7				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Disulfoton	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Ethion	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Ethoprop	µg/L	2		1				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Fenitrothion	µg/L	2		7				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Fensulfothion	µg/L	2		10				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Fenthion	µg/L	2		7				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Malathion	µg/L			70				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Merphos	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	
	Methyl parathion	µg/L	2		0.7				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Mevinphos (Phosdrin)	µg/L	2		5				-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Naled (Dibrom)	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Phorate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Prothiofos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Ronnel	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
	Trichloronate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	<0.001	-	
	7,12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	2,4-dimethylphenol	µg/L	1		360		360	360	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	<3	-	
	2,4-dinitrophenol	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	<0.03	-	-	<0.03	-	
	2-chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	2-methylnaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	<3	-	
	2-nitrophenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	<10	-	
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	<6	-	
	3-methylcholanthrene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	4,6-Dinitro-2-methylphenol	µg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	<30	-	-	<30	-	
	4-chloro-3-methylphenol	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<10	-	-	<10	-	
	4-methylphenol	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-nitrophenol	µg/L	10						-	-	-	-	-	-	-	-	-	-	-	-	<30	-	-	<30	-	
	Acenaphthene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Acenaphthylene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Acetophenone	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	Anthracene	µg/L	1	0.4(#10)					-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Benz(a)anthracene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	<2.42	-	-	<2.42	-	
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Benzo(b)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Benzo(g,h,i)perylene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Benzo(k)fluoranthene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Chrysene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Dibenz(a,h)anthracene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	<1	<20	<1	<1	<20	<1	<1	<20	<1	<1	<20	<1	<1	<1	<1	<1	<1	<1
	PAHs (Sum of total)	µg/L	1		0.01				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	Phenanthrene	µg/L	1	2(#10)					-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Phenol	µg/L	1	400					-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	<3	-	
	Pyrene	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
Pesticides	Chlorobenzilate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Methacrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Pirimphos-ethyl	µg/L			0.5				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	
	Phenols (Total Halogenated)	mg/L	0.01						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	
	Phenols (Total Non Halogenated)	mg/L	0.1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	Butyl benzyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	Diethylphthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	Dimethyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	Di-n-butyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
	Di-n-octyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arochlor 1221	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arochlor 1232	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arochlor 1242	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arochlor 1248	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arochlor 1254	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arochlor 1260	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PCBs (Sum of total)	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Solvents	Methyl Ethyl Ketone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	
	2-Ethyl Hexyl Acrylate	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	
	2-hexanone (MBK)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-Methyl-2-pentanone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	
	Acetone	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	
	Acrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Allyl chloride	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	
	Carbon disulfide	µg/L	1						-	-	<1	-	-	<1	-	-	<1	-	-	<1	-	<1	<1	-	-	<1
	Cyclohexane	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Isophorone	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MTBE	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	
	Vinyl acetate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW21	MW22	MW22	MW22	MW23	MW23	Dup 2 (MW23)	Split 2 (MW23)	MW23	MW24	MW24	Dup 2 (MW24)	Split 2 (MW24)
Sampled Date	12/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014	1/07/2014	1/07/2014	13/08/2014	2/07/2014	13/08/2014	13/08/2014	13/08/2014
SDG	4517	21/05/2014	4273	4517	21/05/2014	4267	4267	152602	4517	4273	4517	4517	114589

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 7	Round 7	Round 9	Round 7	Round 9	Round 9	Round 9
Organophosphorous Pesticides	Azinophos methyl	µg/L	2		30				-	-	-	-	-	-	-	-	-	-	-	-	-
	Bolstar (Sulprofos)	µg/L	2		10				-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorfenvinphos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos	µg/L	2	0.009	10				-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorpyrifos-methyl	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Demeton-O	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Diazinon	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	-
	Dichlorvos	µg/L	2		5				-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethoate	µg/L			7				-	-	-	-	-	-	-	-	-	-	-	-	-
	Disulfoton	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethion	µg/L	2		4				-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethoprop	µg/L	2		1				-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenitrothion	µg/L	2		7				-	-	-	-	-	-	-	-	-	-	-	-	-
	Fensulfothion	µg/L	2		10				-	-	-	-	-	-	-	-	-	-	-	-	-
	Fenthion	µg/L	2		7				-	-	-	-	-	-	-	-	-	-	-	-	-
	Malathion	µg/L			70				-	-	-	-	-	-	-	-	-	-	-	-	-
	Merphos	mg/L	0.002						-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl parathion	µg/L	2		0.7				-	-	-	-	-	-	-	-	-	-	-	-	-
	Mevinphos (Phosdrin)	µg/L	2		5				-	-	-	-	-	-	-	-	-	-	-	-	-
	Naled (Dibrom)	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Phorate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Prothiofos	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Ronnel	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloronate	µg/L	2						-	-	-	-	-	-	-	-	-	-	-	-	-
PAH	Benzo[b+j]fluoranthene	mg/L	0.001						-	<0.001	-	-	-	-	-	-	-	-	-	-	-
	7,12-dimethylbenz(a)anthracene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
PAH/Phenols	1-Chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2,4-dimethylphenol	µg/L	1		360		360	360	-	<3	-	-	-	-	-	-	-	-	-	-	-
	2,4-dinitrophenol	mg/L	0.01						-	<0.03	-	-	-	-	-	-	-	-	-	-	-
	2-chloronaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylnaphthalene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-methylphenol	µg/L	1		930(#9)		930(#9)	930(#9)	-	<3	-	-	-	-	-	-	-	-	-	-	-
	2-nitrophenol	µg/L	1						-	<10	-	-	-	-	-	-	-	-	-	-	-
	3-&4-methylphenol	µg/L	6		930(#9)		930(#9)	930(#9)	-	<6	-	-	-	-	-	-	-	-	-	-	-
	3-methylcholanthrene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	µg/L	10						-	<30	-	-	-	-	-	-	-	-	-	-	-
	4-chloro-3-methylphenol	µg/L	1						-	<10	-	-	-	-	-	-	-	-	-	-	-
	4-methylphenol	mg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-nitrophenol	µg/L	10						-	<30	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Acenaphthylene	µg/L	1	5.8(#13)	530(#9)		530(#9)	530(#9)	-	<1	-	-	-	-	-	-	-	-	-	-	-
	Acetophenone	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Anthracene	µg/L	1	0.4(#10)					-	<1	-	-	-	-	-	-	-	-	-	-	-
	Benz(a)anthracene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Benzo(a) pyrene	µg/L	1	0.2(#10)	0.01		0.01(#18)	0.01	-	<1	-	-	-	-	-	-	-	-	-	-	-
	Carcinogenic PAHs as B(a)P TPE	µg/L							-	<2.42	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)&(k)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(b)fluoranthene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Benzo(k)fluoranthene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Chrysene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,h)anthracene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Fluoranthene	µg/L	1	1.4(#10)	800(#9)		800(#9)	800(#9)	-	<1	-	-	-	-	-	-	-	-	-	-	-
	Fluorene	µg/L	1	3(#13)	290(#9)		290(#9)	290(#9)	-	<1	-	-	-	-	-	-	-	-	-	-	-
	Indeno(1,2,3-c,d)pyrene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
	Naphthalene	µg/L	1	70	1.7(#9)		1.7(#9)	1.7(#9)	<1	<1	<1	<1	<20	<1	<1	<1	<1	<1	<1	<1	<1
	PAHs (Sum of total)	µg/L	1		0.01				-	<1	-	-	-	-	-	-	-	-	-	-	-
	Phenanthrene	µg/L	1	2(#10)					-	<1	-	-	-	-	-	-	-	-	-	-	-
	Phenol	µg/L	1	400					-	<3	-	-	-	-	-	-	-	-	-	-	-
	Pyrene	µg/L	1						-	<1	-	-	-	-	-	-	-	-	-	-	-
Pesticides	Chlorobenzilate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methacrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Pirimphos-ethyl	µg/L			0.5				-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/L	100						-	<100	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Halogenated)	mg/L	0.01						-	<0.01	-	-	-	-	-	-	-	-	-	-	-
	Phenols (Total Non Halogenated)	mg/L	0.1						-	<0.1	-	-	-	-	-	-	-	-	-	-	-
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	5		10				-	-	-	-	-	-	-	-	-	-	-	-	-
	Butyl benzyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Diethylphthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Dimethyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-butyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Di-n-octyl phthalate	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls	Arochlor 1016	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	PCBs (Sum of total)	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
Solvents	Methyl Ethyl Ketone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-Ethyl Hexyl Acrylate	mg/L	0.5						-	-	-	-	-	-	-	-	-	-	-	-	-
	2-hexanone (MBK)	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Methyl-2-pentanone	µg/L	1						-	-	-	-	-	-	-	-	-	-	-	-	-
	Acetone	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Acrylonitrile	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Allyl chloride	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon disulfide	µg/L	1						-	-	<1	-	-	<1	<1	-	-	<1	-	-	<10
	Cyclohexane	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Isophorone	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	MTBE	mg/L	0.001						-	-	-	-	-	-	-	<0.001	-	-	-	-	-
	Vinyl acetate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW1	MW1	DUP (MW1)	split (MW1)	MW1	MW01	MW01	MW2	MW2	MW02	Dup (MW02)	Split (MW02)	MW2	MW02	MW02	MW3	MW3
Sampled Date	23/04/2012	4/09/2013	4/09/2013	4/09/2013	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	27/03/2014	27/03/2014	27/03/2014	21/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013
SDG	Alliance	4/09/2013	4/09/2013	2485	22/05/2014	4273	4517	Alliance	4/09/2013	3608	3608	107343	21/05/2014	4273	4517	Alliance	4/09/2013

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Alliance Round	Round 1	Round 1	Round 1	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 3	Round 3	Round 3	Round 6	Round 7	Round 9	Alliance Round	Round 1
SVOCs	2-(acetylamino) fluorene	ug/L							<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
	3,3-Dichlorobenzidine	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	4-(dimethylamino) azobenzene	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	4-bromophenyl phenyl ether	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	4-chlorophenyl phenyl ether	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	4-Nitroquinoline-N-oxide	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Azobenzene	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Bis(2-chloroethoxy) methane	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Bis(2-chloroethyl)ether	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Bis(2-chloroisopropyl) ether	ug/L	5							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Carbazole	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Coronene	ug/L							<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
	Dibenz(a,j)acridine	mg/L	0.005							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Dibenzofuran	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Hexachloropropene	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	Methapyrilene	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	N-nitrosomorpholine	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	N-nitrosopiperidine	ug/L	5						<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
	N-nitrosopyrrolidine	ug/L							<4	-	-	-	-	-	-	<4	-	-	-	-	-	-	-	<4	-
	Perylene	ug/L							<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	<0.1	-
	Phenacetin	ug/L							<2	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	<2	-
TPH	C10-C16	mg/L	0.05						<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.1	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						<0.1	<0.05	<0.05		<0.05	-	-	<100	<0.05	-	-	-	<0.05			<0.1	<0.05
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					**0.3(#19)**	<0.02	<0.02	<0.02	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	-	-	-	<0.02	<0.01	<0.01	<0.02	<0.02
VOCs	cis-1,4-Dichloro-2-butene	ug/L							<5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-
	Diisopropyl ether	mg/L	0.001							-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Ethyl methacrylate	ug/L								-	-	-	-	-	-		-	-	-	-	-	-	-		-
	Methyl Methacrylate	ug/L	1000							-	-	-	<1,000	-	-		-	-	-	-	<1,000	-	-		-
	Pentachloroethane	ug/L							<5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-
	Trihalomethanes	mg/L			**0.25**				0.0001	-	-	-	-	-	-	<0.0001	-	-	-	-	-	-	-	<0.0001	-
	trans-1,4-Dichloro-2-butene	ug/L							<5	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	<5	-

Notes: (#)

1 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2 ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4 ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5 Australian Standard AS2159-2009 Piling Design and Installation.
6 Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7 SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8 NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10. # denotes aesthetic criteria. Unless otherwise specified.
9 US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
11 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12 US EPA (2003) Region 5 Ecological Screening Levels.
13 CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14 ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15 NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16 NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW3	MW03	MW03	MW4	MW4	MW4	MW4	MW04	MW5	MW5	MW5	MW05	MW6	MW6	MW06	MW7	MW7	MW7
Sampled Date	22/05/2014	2/07/2014	13/08/2014	23/04/2012	4/09/2013	4/06/2014	4/06/2014	2/07/2014	23/04/2012	4/09/2013	21/05/2014	4/07/2014	23/04/2012	22/05/2014	2/07/2014	23/04/2012	4/09/2013	22/05/2014
SDG	22/05/2014	4273	4517	Alliance	4/09/2013	4116	5/06/2014	4273	Alliance	4/09/2013	21/05/2014	4293	Alliance	22/05/2014	4273	Alliance	4/09/2013	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 6	Round 7	Alliance Round	Round 6	Round 7	Alliance Round	Round 1	Round 6
SVOCs	2-(acetylamino) fluorene	µg/L							-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
	3,3-Dichlorobenzidine	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	4-(dimethylamino) azobenzene	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	4-bromophenyl phenyl ether	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	4-chlorophenyl phenyl ether	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	4-Nitroquinoline-N-oxide	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Azobenzene	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Bis(2-chloroethoxy) methane	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	Bis(2-chloroethyl)ether	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Bis(2-chloroisopropyl) ether	µg/L	5						-	-	-		-	-	<5	-		-	-	-		-	-		-	-
	Carbazole	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Coronene	µg/L							-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
	Dibenz(a,j)acridine	mg/L	0.005						-	-	-		-	-	<0.005	-		-	-	-		-	-		-	-
	Dibenzofuran	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	Hexachloropropene	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	Methapyrilene	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	N-nitrosomorpholine	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
	N-nitrosopiperidine	µg/L	5						-	-	-	<2	-	-	<5	-	<2	-	-	-	<2	-	-	<2	-	-
	N-nitrosopyrrolidine	µg/L							-	-	-	<4	-	-	-	-	<4	-	-	-	<4	-	-	<4	-	-
	Perylene	µg/L							-	-	-	<0.1	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-
	Phenacetin	µg/L							-	-	-	<2	-	-	-	-	<2	-	-	-	<2	-	-	<2	-	-
TPH	C10-C16	mg/L	0.05						<0.05	<0.05	<0.05	<0.1	<0.05	-	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						<0.05	-	-	<100	<0.05	-	<0.05	-	<100	<0.05	<0.05	<0.05	<100	<0.05	-	<100	<0.05	<0.05
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	**0.13**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					**0.3(#19)**	<0.02	<0.01	<0.01	<0.02	<0.02	-	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02
VOCs	cis-1,4-Dichloro-2-butene	µg/L							-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-		-	-	<0.001	-		-	-	-		-	-		-	-
	Ethyl methacrylate	µg/L							-	-	-		-	-	-	-		-	-	-		-	-		-	-
	Methyl Methacrylate	µg/L	1000						<1,000	-	-		-	-	<1,000	-		-	<1,000	-		<1,000	-		-	<1,000
	Pentachloroethane	µg/L							-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-
	Trihalomethanes	mg/L			**0.25**				-	-	-	<0.0001	-	-	-	-	<0.0001	-	-	-	<0.0001	-	-	0.00012	-	-
	trans-1,4-Dichloro-2-butene	µg/L							-	-	-	<5	-	-	-	-	<5	-	-	-	<5	-	-	<5	-	-

Notes: (#)

1 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2 ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
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4 ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5 Australian Standard AS2159-2009 Piling Design and Installation.
6 Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7 SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8 NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). H
9 US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
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13 CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
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17 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	DUP (MW07)	Split (MW07)	MW07	MW8	MW8	MW08	MW8	MW8	MW08	MW08	MW9	MW9	MW9	DUP (MW09)	Split (MW9)	MW9	MW9
Sampled Date	22/05/2014	22/05/2014	3/07/2014	23/04/2012	4/09/2013	27/03/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	24/04/2012	4/09/2013	20/03/2014	20/03/2014	20/03/2014	11/04/2014	22/05/2014
SDG	22/05/2014	4021	4290	Alliance	4/09/2013	3608	11/04/2014	22/05/2014	4273	4517	Alliance	4/09/2013	20/03/2014	20/03/2014	3549	11/04/2014	22/05/2014

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 6	Round 6	Round 7	Alliance Round	Round 1	Round 3	Round 4	Round 6	Round 7	Round 9	Alliance Round	Round 1	Round 2	Round 2	Round 2	Round 4	Round 6
SVOCs	2-(acetylamino) fluorene	ug/L							-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
	3,3-Dichlorobenzidine	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	4-bromophenyl phenyl ether	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Azobenzene	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	ug/L	5						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Carbazole	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Coronene	ug/L							-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/L	0.005						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Dibenzofuran	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Hexachloropropene	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	Methapyrilene	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	N-nitrosomorpholine	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	N-nitrosopiperidine	ug/L	5						-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
	N-nitrosopyrrolidine	ug/L							-	-	-	<4	-	-	-	-	-	-	<4	-	-	-	-	-	-
	Perylene	ug/L							-	-	-	<0.1	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
	Phenacetin	ug/L							-	-	-	<2	-	-	-	-	-	-	<2	-	-	-	-	-	-
TPH	C10-C16	mg/L	0.05						<0.05	<0.05	<0.05	<0.1	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						<0.05	-	-	<100	<0.05	-	<0.05	<0.05	-	-	<100	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					**0.3(#19)**	<0.02	<0.01	<0.01	<0.02	<0.02	-	<0.02	<0.02	<0.01	<0.01	0.03	0.02	<0.02	<0.02	0.012	0.03	<0.02
VOCs	cis-1,4-Dichloro-2-butene	ug/L							-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-		-	-	-	-	-	-		-	-	-	-	-	-
	Ethyl methacrylate	ug/L							-	<5,000	-		-	-	-	-	-	-		-	-	-	-	-	-
	Methyl Methacrylate	ug/L	1000						<1,000	<5,000	-		-	-	-	-	-	-		-	-	-	-	-	-
	Pentachloroethane	ug/L							-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-
	Trihalomethanes	mg/L			**0.25**				-	-	-	0.00129	-	-	-	-	-	-	0.00016	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	ug/L							-	-	-	<5	-	-	-	-	-	-	<5	-	-	-	-	-	-

Notes: (#)

1 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2 ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
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4 ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
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9 US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
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17 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW09	MW9-9.0	MW9-9.75	MW9-11.0	MW09	MW10	MW10	MW10	MW10	MW11	MW11	MW11	MW11	MW12	DUP (MW12)	MW12	MW12	Dup 1 (MW12)
Sampled Date	1/07/2014	16/07/2014	16/07/2014	16/07/2014	12/08/2014	11/04/2014	22/05/2014	2/07/2014	12/08/2014	11/04/2014	22/05/2014	1/07/2014	12/08/2014	11/04/2014	11/04/2014	22/05/2014	1/07/2014	1/07/2014
SDG	4267	4375	4375	4375	4517	11/04/2014	22/05/2014	4273	4517	11/04/2014	22/05/2014	4267	4517	11/04/2014	11/04/2014	22/05/2014	4267	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 8	Round 8	Round 8	Round 9	Round 4	Round 6	Round 7	Round 9	Round 4	Round 6	Round 7	Round 4	Round 6	Round 7	Round 7
SVOCs	2-(acetylamino) fluorene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	4-(dimethylamino) azobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	4-bromophenyl phenyl ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	4-chlorophenyl phenyl ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	4-Nitroquinoline-N-oxide	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Bis(2-chloroethyl)ether	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Carbazole	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Coronene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-
	Dibenzofuran	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	Hexachloropropene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-
	N-nitrosopyrrolidine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Perylene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/L	0.05						<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					**0.3(#19)**	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.02	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01
VOCs	cis-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
	Ethyl methacrylate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-	<1,000	-	-
	Pentachloroethane	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes	mg/L			**0.25**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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16 NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	Split 1 (MW12)	MW12	MW13	MW13	DUP (MW13)	Split (MW13)	MW13	MW13	MW13-9.9	MW13-10.65	MW13-11.35	MW13	MW14	MW14	MW14	MW15	MW15
Sampled Date	1/07/2014	12/08/2014	11/04/2014	24/04/2014	24/04/2014	24/04/2014	22/05/2014	2/07/2014	16/07/2014	16/07/2014	16/07/2014	6/08/2014	21/05/2014	3/07/2014	13/08/2014	21/05/2014	3/07/2014
SDG	152602	4517	11/04/2014	24/04/2014	24/04/2014	3794	22/05/2014	4273	4375	4375	4375	4495	21/05/2014	4290	4517	21/05/2014	4290

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 7	Round 9	Round 4	Round 5	Round 5	Round 5	Round 6	Round 7	Round 8	Round 8	Round 8	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
SVOCs	2-(acetylamino) fluorene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Carbazole	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Coronene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,j)acridine	mg/L	0.005						-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	ug/L	5						-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Perylene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/L	0.05						<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						<0.05	-	<0.05	-	-	-	<0.05	-	<0.05	<0.05	<0.05	-	<0.05	-	-	<0.05	-
	C10 - C40 (Sum of total)	mg/L		0.6(#6)	0.6(#6)	0.6(#6)	0.6(#6)	0.6(#6)	<0.1	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					0.3(#19)	<0.01	<0.01	<0.4	-	-	-	<0.8	0.013	<0.01	<0.01	<0.01	0.016	<0.02	<0.01	<0.01	<0.02	<0.01
VOCs	cis-1,4-Dichloro-2-butene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-
	Ethyl methacrylate	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	ug/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes	mg/L			0.25				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes: (#)

1 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2 ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4 ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5 Australian Standard AS2159-2009 Piling Design and Installation.
6 Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7 SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8 NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). H
9 US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
11 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12 US EPA (2003) Region 5 Ecological Screening Levels.
13 CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14 ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15 NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16 NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18 NHMRC/NRMMC (2011) National Water Quality Management Strategy, Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID	MW15	MW16	MW16	MW16	MW17	MW17	MW17	MW18	MW18	MW18	MW19	MW19	MW19	MW20	MW20	MW20	MW21	MW21
Sampled Date	13/08/2014	20/05/2014	1/07/2014	6/08/2014	20/05/2014	1/07/2014	13/08/2014	21/05/2014	3/07/2014	13/08/2014	20/05/2014	2/07/2014	13/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014
SDG	4517	20/05/2014	4267	4495	20/05/2014	4267	4517	21/05/2014	4290	4517	20/05/2014	4273	4517	21/05/2014	4273	4517	21/05/2014	4267

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7
SVOCs	2-(acetylamino) fluorene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	4-(dimethylamino) azobenzene	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	4-bromophenyl phenyl ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	4-chlorophenyl phenyl ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	4-Nitroquinoline-N-oxide	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	Bis(2-chloroethyl)ether	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	Carbazole	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Coronene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,i)acridine	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-
	Dibenzofuran	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	Hexachloropropene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	µg/L	5						-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-
	N-nitrosopyrrolidine	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Perylene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/L	0.05						<0.05	<0.05	<0.05	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						-	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	-	-	<0.05	-	<0.05	-	-	<0.05	<0.05	<0.05
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					**0.3(#19)**	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01
VOCs	cis-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-
	Ethyl methacrylate	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	µg/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	<1,000	-	-	-	-	-
	Pentachloroethane	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes	mg/L			**0.25**				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	µg/L							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes: (#)

1 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2 ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4 ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
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9 US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
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17 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

TABLE A4:
Groundwater Results - Brighton Group Aquifer
33 Jack Road, Cheltenham, Victoria

Field ID														
Sampled Date	MW21	MW22	MW22	MW22	MW23	MW23	Dup 2 (MW23)	Split 2 (MW23)	MW23	MW24	MW24	Dup 2 (MW24)	Split 2 (MW24)	
SDG	12/08/2014	21/05/2014	2/07/2014	13/08/2014	21/05/2014	1/07/2014	1/07/2014	1/07/2014	13/08/2014	2/07/2014	13/08/2014	13/08/2014	13/08/2014	
	4517	21/05/2014	4273	4517	21/05/2014	4267	4267	152602	4517	4273	4517	4517	114589	

Chem_Group	Chemical Name	Units	EQL	Maintenance of Ecosystems (#1)	Acceptable Potable Water Supply (#18)	Agriculture, Parks and Gardens (#2)	Stock Watering (#3)	Primary Contact Recreation (#8)	Round 9	Round 6	Round 7	Round 9	Round 6	Round 7	Round 7	Round 7	Round 9	Round 7	Round 9	Round 9	Round 9
SVOCs	2-(acetylamino) fluorene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	3,3-Dichlorobenzidine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-(dimethylamino) azobenzene	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-bromophenyl phenyl ether	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-chlorophenyl phenyl ether	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	4-Nitroquinoline-N-oxide	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Azobenzene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethoxy) methane	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroethyl)ether	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Bis(2-chloroisopropyl) ether	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbazole	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Coronene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenz(a,i)acridine	mg/L	0.005						-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrilene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	ug/L	5						-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopyrrolidine	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Perylene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Phenacetin	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
TPH	C10-C16	mg/L	0.05						<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	<0.05
	C16-C34	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C34-C40	mg/L	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	F2-NAPHTHALENE	mg/L	0.05						-	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	-	-	-	-	<0.05
	C10 - C40 (Sum of total)	mg/L		**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	**0.6(#6)**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	C6-C10	mg/L	0.01					**0.3(#19)**	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
VOCs	cis-1,4-Dichloro-2-butene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Diisopropyl ether	mg/L	0.001						-	-	-	-	-	-	-	-	-	-	-	-	-
	Ethyl methacrylate	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Methyl Methacrylate	ug/L	1000						-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-
	Trihalomethanes	mg/L			**0.25**				-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,4-Dichloro-2-butene	ug/L							-	-	-	-	-	-	-	-	-	-	-	-	-

Notes: (#)

1 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2 ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4 ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5 Australian Standard AS2159-2009 Piling Design and Installation.
6 Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7 SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8 NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). H
9 US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10 ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
11 ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12 US EPA (2003) Region 5 Ecological Screening Levels.
13 CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14 ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15 NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16 NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17 ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18 NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

Table B1 Groundwater Monitoring Well Details – Perched Aquifer

Well	Installation date	Well Depth (mbgs)	Screen interval (m)	Depth to Groundwater (mbgs)	Comments
MW9A	5 April 2012	3.0	1.0 – 3.0	0.90 – 1.00	On-site: former boiler house and adjacent to the UST pit located in the northern part of the site.
MW9AR	9 May 2014	2.5	1.5 – 2.5	0.82 – 1.01	On-site: MW9A replacement well.
SW1	26 June 2014	2.0	1.0 – 2.0	0.93 – 0.96	On-site: north of former sub-station located in the north-west part of the site.
SW2	26 June 2014	2.7	1.7 – 2.7	1.12 – 1.19	On-site: former boiler house located in the northern part of the site.
SW3	26 June 2014	2.0	1.0 – 2.0	Dry	On-site: former boiler house located in the northern part of the site.
SW4	26 June 2014	2.0	1.0 – 2.0	Dry	On-site: north-east part of the site.
SW5	26 June 2014	2.0	1.0 – 2.0	1.01 – 1.07	On-site: eastern part of the site.
SW6	26 June 2014	2.0	1.0 – 2.0	0.72	On-site: former spinning plant 1 located in the eastern part of the site.
SW7	26 June 2014	2.0	1.0 – 2.0	1.11	On-site: former spinning plant 3 located in the south eastern part of the site.
SW8	26 June 2014	2.0	1.0 – 2.0	0.69 – 0.73	On-site: north of former spinning plant 1 located in the north eastern part of the site

Well	Installation date	Well Depth (mbgs)	Screen interval (m)	Depth to Groundwater (mbgs)	Comments
SW9	26 June 2014	2.0	1.0 – 2.0	1.44	On-site: former spinning plant 3 located in the south eastern part of the site
SW10	26 June 2014	2.0	1.0 – 2.0	1.71	On-site: former dye yarn storage area located in the southern part of the site.
SW11	26 June 2014	2.0	1.0 – 2.0	Dry	On-site: former tufting plant 1 located in the central part of the site.
SW12	26 June 2014	2.0	1.0 – 2.0	Dry	On-site: former Axminster plant located in the north-west part of the site.
SW13	26 June 2014	2.0	0.5 – 1.5	0.47 – 0.52	On-site: west of former boiler house located in the northern part of the site.
SW14	26 June 2014	2.0	1.0 – 2.0	Dry	On-site: former workshop area located in the central part of the site.
SW15	26 June 2014	2.0	1.0 – 2.0	0.64 – 0.67	On-site: former spinning plant 1 located in the east central part of the site.

Table B2 Groundwater Monitoring Well Details – Deep Aquifer

Well	Installation date	Well Depth (mbgs)	Screen interval (m)	Depth to Groundwater (mbgs)	Comments
MW1	5 April 2012	11.6	7.6 – 11.6	9.16 – 9.24	On-site: former piece dye machine located in the south-east part of the site.
MW2	5 April 2012	11.6	7.6 – 11.6	9.23 – 9.50	On-site: former dye house located in the southern part of the site.
MW3	5 April 2012	11.5	7.5 – 11.5	9.33 – 9.60	On-site: former dye house located in the southern part of the site.
MW4	10 April 2012	11.6	7.6 – 11.6	9.66 – 9.88	On-site: former print line located in the south-west part of the site.
MW5	5 April 2012	11.6	7.6 – 11.6	9.37 – 9.59	Off-site: adjacent to the western site boundary.
MW6	10 April 2012	11.6	7.6 – 11.6	9.02 – 9.20	Off-site: adjacent to the western site boundary, downgradient of the shearer machine, Axminster plant and finishing plant.
MW7	11 April 2012	11.6	7.6 – 11.6	9.02 – 9.20	On-site: former tufting plant 1 located in the central part of the site.
MW8	4 April 2012	11.4	5.4 – 11.4	8.83 – 9.05	On-site: located up-gradient of the TIT in the north-west corner of the site. Representative of groundwater conditions entering the site.
MW9	5 April 2012	11.5	7.5 – 11.5	8.52 – 8.70	On-site: former boiler house located in the northern part of the site, also immediately adjacent to the UST pit.

Well	Installation date	Well Depth (mbgs)	Screen interval (m)	Depth to Groundwater (mbgs)	Comments
MW10	3 April 2014	11.5	8.5 – 11.5	8.86 – 9.10	On-site: north-west corner of the site. Representative of groundwater conditions entering the site.
MW11	3 April 2014	11.0	8.0 – 11.0	8.61 – 8.83	On-site: north of former substation located in the northern part of the site. Representative of groundwater conditions entering the site.
MW12	3 April 2014	11.2	7.5 – 11.2	8.86 – 9.05	On-site: north of former USTs and boiler house located in the north-east part of the site
MW13	3 April 2014	11.0	8.0 – 11.0	8.96 – 9.10	On-site: between former workshop and spinning plant located in the central part of the site. Adjacent to the north-south sewer main identified in this area of the site.
MW14	9 May 2014	11.0	8.0 – 11.0	9.03 – 9.08	On-site: between former workshop and spinning plant located in the central part of the site. Adjacent to the north-south sewer main identified in this area of the site and to the north of well MW13.
MW15	9 May 2014	11.0	8.0 – 11.0	9.04 – 9.09	On-site: former tufting plant 1 located in the central part of the site. To the west of well MW13.
MW16	9 May 2014	11.0	8.0 – 11.0	9.13 – 9.17	On-site: former spinning plant 1 located in the eastern part of the site. To the east of well MW13.
MW17	9 May 2014	11.0	8.0 – 11.0	9.20 – 9.23	On-site: central eastern part of the site.

Well	Installation date	Well Depth (mbgs)	Screen interval (m)	Depth to Groundwater (mbgs)	Comments
MW18	9 May 2014	11.0	8.0 – 11.0	9.17 – 9.22	On-site: former yarn storage area located in the south central part of the site. Adjacent to the north-south sewer main identified in this area of the site and to the south-west of well MW13.
MW19	9 May 2014	11.0	8.0 – 11.0	9.04 – 9.17	On-site: between former yarn storage area and bulk store 2 located in the south central part of the site. Adjacent to the north-south sewer main identified in this area of the site and to the south of well MW13.
MW20	9 May 2014	11.0	8.0 – 11.0	9.40 – 9.52	On-site: between former dye store and bulk store 2 located in the southern part of the site.
MW21	9 May 2014	10.0	5.5 – 10.0	7.02 – 7.42	On-site: former spinning plant 1 located in the northern part of the site. Adjacent to the north-south sewer main.
MW22	9 May 2014	11.0	8.0 – 11.0	9.19 – 9.22	On-site: former workshop area located in the central part of the site.
MW23	9 May 2014	11.0	8.0 – 11.0	9.07 – 9.16	On-site: former spinning plant 1 located in the east central part of the site.
MW24	9 May 2014	12.0	9.0 – 12.0	9.27 – 9.36	On-site: on the south-eastern site boundary in the former dye house area.

Table C – Surrounding Well Use Summary (within 500m radius of the site)

Bore Use	Number of bores identified
Irrigation	28
Domestic	47
Stock	1
Domestic and Stock	48
Domestic and Miscellaneous	1
Stock and Miscellaneous	1
Industrial	1
Miscellaneous	5
Unknown	86

Table D Summary of Relevant Surrounding Environmental Audit Sites

Detail	Environmental Audit	
	Lot A on PS444799U, Part of 9-41 Charlton Ave, Cheltenham (CARMS No. 69782-1)	**18-22 Hamlet St, Cheltenham (CARMS No. 62617-1)**
Distance from 33 Jack Road	Directly to the south	374m north
Year Audit Completed	2013	2011
Identified soil impacts	Metals exceeding the adopted criteria for the protection of ecosystems. Copper, lead, TPH >C9, BaP and bis (2-ethylhexyl) phthalate exceeding the adopted criteria for the protection of human health in a medium-high density residential setting. Soil impacts largely were confined to the fill and were remediated during soil excavation works.	VCH impacts identified in the south eastern site corner It is likely that VCH-contaminated soil extends from the site to the south and possibly also the east. Soil investigations in other areas of the site were not sufficient in other areas where historical release of these chemicals is suspected.
Depth to groundwater (mbgs)	Brighton Group aquifer: 9-12 Shallow Quaternary aquifer: 0.5-3.9	Brighton Group aquifer: 8-11

Detail	Environmental Audit	
	Lot A on PS444799U, Part of 9-41 Charlton Ave, Cheltenham (CARMS No. 69782-1)	18-22 Hamlet St, Cheltenham (CARMS No. 62617-1)
Groundwater flow direction	Brighton Group aquifer: south-west Shallow Quaternary aquifer: north-east. Flow direction within the shallow aquifer likely to be variable and influenced by building foundations, sewerage and stormwater drains and groundwater barrier walls, as well as the type of material used to backfill the remediation areas (and respective depths and locations this material was placed). Areas of depression and mounding generally correlate to the remediated areas. Groundwater within the shallow aquifer likely to be intercepted by the sewer located adjacent to the eastern site boundary. Municipal drainage pipes within the same easement as the sewer may also receive discharge when perched water levels are above that of the pipe (2mbgs).	Brighton Group aquifer: generally to the south with westerly or easterly components. Mounding was identified across the site in a number of areas and was considered due to leaking services (water or sewerage). Additionally, it was considered that surface features (drainage grates, TITs, sumps, and UST excavation areas) may be modifying shallow (and potentially deeper) groundwater flow at and from the site. The potential presence of higher permeability river bed sand/gravel indicated that some deeper groundwater flow may be directed toward and along these higher permeability features, and may be migrating from the site along these pathways (may or may not follow regional flow). The Auditor concluded that a more robust understanding of the site groundwater flow was required. Investigation works were insufficient to differentiate between regional and perched groundwater.

Detail	Environmental Audit	
	Lot A on PS444799U, Part of 9-41 Charlton Ave, Cheltenham (CARMS No. 69782-1)	18-22 Hamlet St, Cheltenham (CARMS No. 62617-1)
Groundwater impacts	Brighton Group aquifer: Metals (cobalt, copper, nickel and zinc). Metal concentrations considered to be representative of regional or background water quality. Shallow Quaternary aquifer: Metals (arsenic, cobalt, copper, manganese, nickel and zinc), formaldehyde, TRH (C10-C36) and naphthalene. TRH (C10-C36) considered to be sourced from site. Metals considered to be representative of regional or background water quality. Formaldehyde and naphthalene considered to be sourced from an upgradient source. No groundwater remediation works were considered warranted.	Ammonia, cyanide, nitrate, nitrite, arsenic, cadmium, copper, iron, lead, manganese, mercury, nickel, zinc, chloride, fluoride, sodium, sulphate, naphthalene, BTEX, TPH, TCE, DCE, carbon tetachloride, dichloromethane, trichloroethene, tetrachloroethene, chloroform, 1,1-dichlorothane, 1,1-dichloroethene, iodide, vinyl chloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene and chlorobenzene. Chloride, sodium, sulphate and manganese considered to be naturally occurring and not pollution however "the highest values are unlikely to be natural and may be due to contamination although the source is not obvious". Elevated fluoride considered to be due to site activities. Metal concentrations may be naturally elevated and further elevated by site operations. Concentration of elevated organic compounds are considered to be sourced from site.
Beneficial uses of groundwater precluded	Potable Water, Agriculture Parks & Gardens, Stock Watering, Primary Contact Recreation	Potable Water Supply, Agriculture Parks & Gardens, Stock Watering, Industrial Water Use, Pimary Contact Recreation, Buildings & Structures
Identified soil vapour impacts	Methane.	Not investigated

Detail	Environmental Audit	
	Lot A on PS444799U, Part of 9-41 Charlton Ave, Cheltenham (CARMS No. 69782-1)	18-22 Hamlet St, Cheltenham (CARMS No. 62617-1)
Further work or requirements	Fill soil must be covered with a physical barrier (such as building slabs, roads or other paving) or in landscaped areas and garden beds be covered by at least 0.5 m of thickness of clean fill (as defined by EPA guidelines) below the finished surface. A vapour mitigation system must be installed in the western portion of the site to manage ground gases unless the source of those gases is removed. A soil contamination management plan must be developed to address subsurface excavation works across the entire audit site and matters that may affect the vapour mitigation system(s).	Conduct additional soil and groundwater investigations. Perform further assessments of human health risk. Develop a numerical groundwater model. Prepare Remediation Feasibility Study. Re-assess the risks posed to off-site workers and implement SMP for on-site intrusive workers.

Table E Summary of sources of potential contaminants of concern and analytical schedules for soil and groundwater

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Total petroleum hydrocarbons (TPH)	On-site sources (imported fill, USTs, TIT, boiler house and workshop) Off-site sources (imported fill and industrial land-uses to north and south)	Point sources: USTs and Boiler house (north-central) Workshop (north-central) TIT (north-west) Finishing plant, tufting plants, winding and spinning plants and yarn storage area, Spinning plants, shearing machine & Axminster plant. Potential for distribution throughout the site due to the presence of imported fill.	Yes. USTs and boiler house: Alliance locations B35 to B37. Workshop (north-central): Alliance location B34. TIT (north-west): Alliance location B41. Finishing plant, tufting plants, winding and spinning plants and yarn storage area, Spinning plants, shearing machine & Axminster plant: Alliance B1 & B4 (spinning plants), B13 (winding & spinning plant), B22 (Shearer machine), B25 & B27 (Axminster plant), B30 (yarn storage area), B31 (tufting plant 1), B38 (finishing plant). LRM TP12 (yarn storage area), TP13 (north of winding & spinning plant), TP21 & TP22 (Axminster plant & shearer machine), TP25 (finishing plant), TP27 & TP29 (tufting plant 2), TP28 (tufting plant 1), TP32 (spinning plant 3) & TP41 & TP42 (winding and spinning plant).	Yes (Alliance and LRM). USTs and boiler house: Well MW9. TIT (north-west): Well MW8 Workshop (north-central): MW14, MW15 & MW22 Finishing plant, tufting plants, winding and spinning plants and yarn storage area, Spinning plants, shearing machine & Axminster plant. Well MW3, MW6 & MW18	Yes (Alliance and LRM).
Monoaromatic hydrocarbons (MAH; including benzene, toluene, ethylbenzene and xylenes (BTEX))	On-site sources (USTs, TIT, boiler house and workshop) Off-site sources (industrial land-uses to north and south)	Point sources: USTs and boiler house(north-central) Workshop (north-central) TIT (north-west)	Yes. USTs and boiler house: Alliance locations B35 to B37 (BTEX only) Workshop (north-central): Alliance location B34 (BTEX only) TIT (north-west): Alliance location B41	Yes. USTs and boiler house: Well MW9 Workshop (north-central): MW14, MW15 & MW22 TIT (north-west): Well MW8	Yes (Alliance and LRM; BTEX only).

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Polycyclic aromatic hydrocarbons (PAHs)	On-site sources (imported fill, USTs, boiler house and workshop) Off-site sources (industrial land-uses to north and south)	Point sources: USTs and boiler house (north-central) Workshop (north-central) TIT (north-west) Finishing plant, tufting plants, winding and spinning plants and yarn storage area, Spinning plants, shearing machine & Axminster plant. Potential for distribution throughout the site due to the presence of imported fill.	Yes. USTs and boiler house: Alliance locations B35 to B37 Workshop (north-central): Alliance location B34 TIT (north-west): Alliance location B41 PAH analysed at all Alliance soil sampling locations. Additional samples analysed by LRM as follows: TP5 (spinning plant), TP13 (north of winding & spinning plant), TP21 & TP22 (Axminster plant), TP25 (finishing plant), TP27 & TP29 (tufting plant 2), TP28 (tufting plant 1), TP32 (spinning plant 3), TP41 (winding and spinning plant)	Yes (Alliance and LRM). USTs and boiler house: Well MW9. Workshop (north-central): Well MW14, MW21 & MW22 TIT (north-west): Well MW8 Finishing plant, tufting plants, winding and spinning plants and yarn storage area, Spinning plants, shearing machine & Axminster plant. Well MW3, MW6 & MW18	Yes (LRM only).
Phenolic compounds	On-site sources (imported fill, boiler house and workshop) Off-site sources (industrial land-uses to north and south)	Point sources: Boiler house (north-central) Workshop (north-central) TIT (north-west)	Yes. USTs and boiler house: Alliance locations B36 & B37 Workshop (north-central): LRM location TP10 TIT (north-west): Alliance location B41	Yes (Alliance and LRM). USTs and boiler house: Well MW9 Workshop (north-central): Well MW14, MW21 & MW22 TIT (north-west): Well MW8	Yes.
Pesticides and herbicides	On-site sources (imported fill, market gardening) Off-site sources (imported fill, market gardening)	Potential for distribution throughout the site due to the presence of imported fill and former market gardening activities.	OCPs, OPPs and herbicides - Yes. Alliance - 15 fill and 9 natural samples analysed for OCPs, 5 fill and 6 natural samples analysed for OPPs and selected herbicides . Additional grid samples analysed by LRM at locations TP1, TP4, TP9 - TP13, TP15 – TP20, TP23, TP30, TP31, TP33, TP35, TP42 and TP43.	OCPs and OPPs – Yes (MW1 to MW9, Alliance and LRM; OPPs Alliance and LRM: wells MW12, MW13 & MW20). Herbicides – No. Not considered to be required given no herbicides were detected in soil and no OCPs/OPPs were detected in groundwater.	OCPs - Yes (LRM). OPPs - Yes (LRM) Herbicides – No. Not considered to be required given no herbicides were detected in soil and no OCPs/OPPs were detected in groundwater.

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Heavy metals	On-site sources (imported fill, market gardening, dye house operations) Off-site sources (imported fill and industrial land-uses to north and south)	Point sources: Dye house, piece dye machine, effluent treatment plant, print line, daily dye store, bulk store (south-central) USTs (lead only) Workshop (north-central) TIT (north-west) Site drainage systems Potential for distribution throughout the site due to the presence of imported fill.	Yes. Metals analysed at all Alliance soil sampling locations except B13 and B19. Additional grid samples analysed by LRM at locations TP1, TP2, TP4, TP13, TP20, TP23, TP26, TP38 and TP43. Additional targeted samples analysed for metals by LRM to target the daily dye store and site drainage systems. Daily dye store: TP35 Site drainage systems: TP6, TP9, TP10, TP16, TP17, TP18, TP19, TP27, TP28, TP30, TP31, TP32, TP33, TP35, TP41 & TP42.	Yes (Alliance and LRM). Dye house, piece dye machine, effluent treatment plant, print line, daily dye store, bulk store (south-central): Wells MW1 to MW5 USTs: Well MW9 TIT (north-west): Well MW8 Site drainage systems: Wells MW1 to MW5, MW11 to MW13 Workshop (north-central): Wells MW15 and MW22	Yes.

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Solvents/volatile organic compounds (VOCs) including volatile chlorinated hydrocarbons (VCHs)	On-site sources (carpet manufacturing processes) Off-site sources (industrial land-uses to north and south)	Point sources: Dye house, piece dye machine, effluent treatment plant, print line, daily dye store, bulk store (south-central) TIT Workshop (north-central) Site drainage systems	Yes. Dye house Alliance B13, MW2 & MW3 Print line Alliance B17, B19, MW4 & MW5 Effluent treatment plant: Alliance B47 & B48 Piece dye machine: LRM TP30 & TP31 Daily dye store: LRM TP35 Bulk store: LRM TP14 & TP33 TIT: Alliance B41 & MW8 Workshop: LRM TP10 Site drainage systems: TP6, TP9, TP10, TP11, TP16, TP17, TP18, TP19, TP27, TP28, TP30, TP31, P32, TP33, TP35 and TP42	Yes (Alliance and LRM). Dye house, piece dye machine, effluent treatment plant, print line, daily dye store, bulk store (south-central): Wells MW1 to MW5 TIT (north-west): Well MW8 Workshop (north-central): Wells MW15 and MW22 Site drainage systems: Wells MW1 to MW5, MW11 to MW13 to MW23	Yes (LRM only).
Acetaldehyde, formaldehyde, acrylate	Off-site sources (industrial land-uses to the south)	Point sources: Southern site boundary (potential for spills onto the site from the site to the south).	Yes. Southern site boundary: LRM TP16 (acrylates and acetaldehyde). LRM TP17, TP18, TP19 & TP42 (acrylates). LRM G1, adjacent to well MW9 (formaldehyde).	Formaldehyde – Yes (Alliance and LRM). Acetaldehydes– Yes, well MW4. Acrylates– Yes.	Not relevant, well located in northern part of the site.

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Acids/alkalis	On-site sources (carpet manufacturing processes) Off-site sources (industrial land-uses to the south)	Point sources: Dye house, piece dye machine effluent treatment plant, print line, daily dye store, bulk store (south-central) TIT Site drainage systems	Yes. Dye house: Alliance B13 & MW2 Print line: Alliance B17 Effluent treatment plant: Alliance B47 & B48 Bulk store: Alliance B6 Piece dye machine: LRM TP30 & TP31 Daily dye store: LRM TP35 TIT: Alliance B41 Site drainage systems: LRM TP9, TP16, TP17, TP18, TP19, TP20, TP33 & TP42.	Yes (Alliance only). Dye house, piece dye machine, effluent treatment plant, print line, daily dye store, bulk store (south-central): Wells MW1 to MW5 TIT (north-west): Wells MW8 Site drainage systems: Wells MW1 to MW5, MW9 to MW23	Yes.

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Phthalate esters, oxygenated compounds (incl. vinyl acetate, MBK), nitrosamines, nitroaromatics and ketones, haloethers, anilines and benzidines.	On-site sources (carpet manufacturing processes) Off-site sources (industrial land-uses to the south)	Point sources: Dye house, piece dye machine effluent treatment plant, print line, daily dye store, bulk store (south-central) TIT Site drainage systems	Yes. Dye house : Alliance B13, MW2 & MW3 Print line: Alliance B17, B19, MW4 & MW5 Effluent treatment plant: Alliance B47 & B48 Piece dye machine: LRM TP30 & TP31 Daily dye store: LRM TP35 Bulk store LRM TP33 TIT: Alliance B41 & MW8 Site drainage systems: LRM TP9, TP11, TP16, TP17, TP18, TP27, TP28 and TP42.	Yes (Alliance). Dye house, piece dye machine, effluent treatment plant, print line, daily dye store, bulk store (south-central): Wells MW1 to MW5 TIT (north-west): Well MW8 Site drainage systems (southern): Wells MW1 to MW5 Results confirmed by LRM at three locations – MW12, MW13 & MW20.	Yes.

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Compounds containing N, P and S.	On-site sources (carpet manufacturing processes)	Point sources: Dye house, piece dye machine effluent treatment plant, print line, daily dye store, bulk store (south-central) TIT Site drainage systems	Yes: Dye house: Alliance B13, MW2 & MW3 Print line: Alliance B17 Effluent treatment plant: Alliance B47 & B48 Piece dye machine: Alliance B7 & LRM TP30 & TP31 Bulk store: Alliance B6 Daily dye store: LRM TP35 TIT: Alliance B41 Site drainage systems: LRM TP9, TP11, TP16, TP17, TP18, TP19 and TP42.	Yes (Alliance and LRM). Dye house, piece dye machine, effluent treatment plant, print line, daily dye store, bulk store (south-central): Wells MW1 to MW5 TIT (north-west): Well MW8 Site drainage systems (southern): Wells MW1 to MW5	Yes (LRM).
Methane	Off-site sources (fill imported at industrial land-uses to south)	None	N/A	N/A	N/A
Cyanide and fluoride	On-site sources (carpet manufacturing processes) Off-site sources (industrial land-uses to the north and south)	Potential for distribution throughout the site due to former industrial use of the land.	Cyanide - Yes. 8 fill and 1 natural samples analysed by Alliance. Fluoride – Yes. 13 fill and 2 natural samples analysed by LRM.	Yes (Wells MW1 to MW9, Alliance and LRM).	Yes (LRM only).
PBCs	On-site sources (sub-stations)	Point sources: 2 x sub-stations (north-west and central)	Yes. Alliance locations B5 and B40. 10 additional fill and 3 additional natural samples analysed by LRM adjacent to the sub-stations.	Yes (LRM only).	Yes (LRM only).

Potential contaminants of concern	Potential Sources of Contamination	On-site Location	Included in analytical schedule for soil?	Included in analytical schedule for groundwater (Brighton Group Aquifer)?	Included in analytical schedule for groundwater (Perched Aquifer – MW9A)?
Asbestos	On-site sources (imported fill)	Potential for distribution throughout the site due to the presence of imported fill.	No – ACM abatement and clearance works undertaken to remove identified ACM in bituminous crushed rock material on the surface of the site and surface fill.	N/A	N/A

N/A indicates not applicable

Table F1 Adopted Soil Assessment Criteria (mg/kg)

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
pH	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	6-8[15]	NE	NE
Arsenic	100	100	100	500	100	300	160	3,000	3,000	NA
Barium	500[12]	15,000[10]	500[12]	15,000[10]	500[12]	15,000[10]	2,000[12]	190,000[11]	190,000[11]	NA
Beryllium	4[14]	60	4[14]	90	4[14]	90	4[14]	500	500	NA
Boron	NE	4,500	NE	40,000	NE	20,000	NE	300,000	300,000	NA
Cadmium	10[12]	20	22[15]	150	10[12]	90	22[15]	900	900	NA
Chromium VI	0.4[12]	100	0.4[12]	500	0.4[12]	300	1.4[12]	3,600	3,600	NA
Chromium III	410[16]	NE	410[16]	NE	410[16]	NE	670[16]	NE	NE	NA
Cobalt	50[12]	100	50[12]	600	50[12]	300	300[12]	4,000	4,000	NA
Copper	210[16]	6,000	210[16]	30,000	210[16]	17,000	310[16]	240,000	240,000	NA
Lead	1,100	300	1,100	1,200	1,100	600	1,800	1,500	1,500	NA

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
Manganese	500[15]	3,800	500[15]	14,000	500[15]	19,000	NE	60,000	60,000	NA
Mercury (inorganic)	6.6[12]	40	6.6[12]	120	6.6[12]	80	24[12]	730	730	NA
Nickel	250[16]	400	250[16]	1,200	250[16]	1,200	450[16]	6,000	6,000	NA
Selenium	0.7[14]	200	0.7[14]	1,400	0.7[14]	700	NE	10,000	10,000	NA
Vanadium	130[12]	390[10]	130[12]	390[10]	130[12]	390[10]	130[12]	5,100[11]	5,100[11]	NA
Zinc	660[16]	7,400	660[16]	60,000	660[16]	30,000	1,000[16]	400,000	400,000	NA
Cyanide (free)	0.9[12]	250	8[12]	300	0.9[12]	240	8[12]	1,500	1,500	NA
Sulphate	2,000[14]	NE	2,000[14]	NE	2,000[14]	NE	NE	NE	NE	NA
Nitrate	NE	130,000[10]	NE	130,000[10]	NE	130,000[10]	NE	1,600,000[11]	1,600,000[11]	NA
Fluoride	200[12]	3,100[10]	200[12]	3,100[10]	200[12]	3,100[10]	NE	41,000[11]	41,000[11]	NA
Benzene	50	0.5/100	50	0.5/140	50	NL/120	75	3/430	77/1,100	NE
Toluene	85	160/14,000	85	160/21,000	85	NL/18,000	135	NL/99,000	NL/120,000	NE

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
Ethylbenzene	70	55/4,500	70	55/5,900	70	NL/5,300	165	NL/27,000	NL/85,000	NE
Total Xylenes	105	40/12,000	105	40/17,000	105	NL/15,000	180	230/81,000	NL/130,000	NE
TRH C6-C10 minus BTEX (F1)[6]	180	45/4,400	180	45/5,600	180	NL/5,100	215	260/26,000	NL/82,000	700
TRH >10-C16 minus naphthalene (F2)[6,8]	120	110/3,300	120	110/4,200	120	NL/3,800	170	NL/20,000	NL/62,000	1,000
TRH >C16-C34 (F3)	300	-/4,500	300	-/5,800	300	-/5,300	1,700	-/27,000	-/85,000	3,500
TRH>C34 (F4)	2,800	-/6,300	2,800	-/8,100	2,800	-/7,400	3,300	-/38,000	-/120,000	10,000
Naphthalene	170	3/1,400	170	3/2,200	170	NL/1,900	370	NL/11/000	NL/29,000	NE
Benzo(a)pyrene[9]	0.7	3	0.7	4	0.7	3	1.4	40	40	NA
Total PAH	20[13]	300	20[13]	400	20[13]	300	NE	4,000	4,000	NA

Analyte	Residential A (low density)[1]		Residential B (high density)[2]		Recreational/ Open space C[3]		Commercial/Industrial D[4]		Intrusive maint. Worker[5]	Mgt. Limits[6]
	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	EILs/ESLs	Human Health – HILs/HSLs	Human Health – HILs/HSLs	
Phenol	0.05[14]	3,000	0.05[14]	45,000	0.05[14]	40,000	NE	240,000	240,000	NA
Pentachloro-phenol	7.6[15]	100	7.6[15]	130	7.6[15]	120	7.6[15]	660	660	N/A
Cresols	NE	400	NE	4,700	NE	4,000	NE	25,000	25,000	N/A
PCBs	1.3[15]	1	33[15]	1	1.3[15]	1	33[15]	7	7	N/A
DDT[7]	180	240	180	600	180	400	640	3,600	3,600	N/A

Notes:

1: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with garden/accessible soil (A)– Unless otherwise specified.

2: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for urban residential/public open space, HIL/HSLfor residential with minimal opportunities for soil access (B)– Unless otherwise specified.

3: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for recreational/open space, HIL/HSL C– Unless otherwise specified.

4: NEPM Schedule B(1) (NEPC 2013) EIL/ESL for commercial/industrial, HIL/HSLfor commercial/industrial (D)– Unless otherwise specified.

5: NEPM Schedule B(1) (NEPC 2013) and Friebel and Nadebaum (2011) HIL for commercial/industrial (D) and HSL for intrusive maintenance worker– Unless otherwise specified.

6: NEPM Schedule B(1) (NEPC 2013). Do not subtract BTEX or naphthalene prior to comparison of TRH C6-C10 or >C10-C16 results with management limits.

7: HIL for DDT+DDD+DDE

8: Do not subtract naphthalene prior to comparison of TRH >C10-C16 results with ESL.

9: HILs for BaP TEQ.

10: US EPA Regional Screening Levels May 2014 (Residential Use). For direct contact exposure pathways only.

11: US EPA Regional Screening Levels May 2014 (Industrial Use).For direct contact exposure pathways only.

12: CCME (2007) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (Agricultural criteria adopted in the in absence of NEPM EILs and Residential and Commercial/Industrial levels adopted in the in absence of NEPM HILs).

13: NSW EPA (1994) Guidelines for Assessing Service Station Sites. Threshold Concentrations for Sensitive Land Use (criteria for the protection of terrestrial organism adopted in the absence of NEPM EILs and criteria for the protection of human health adopted in the absence of NEPM HILs).

14: Dutch 2009 (Target value) adopted in the absence of NEPM EIL and ANZECC B levels.

15: ANZECC B levels.

16: Site-specific value derived based on the recommendations of NEPC (2013).

HIL: Health Investigation Level

HSL: Health Screening Level. HSL for vapour intrusion quoted first followed by HSL for direct contact, "-" indicates analyte is not volatile, vapour intrusion HSL for 0m - <1m in sand adopted for HSL-A, HSL-B and HSL-D, HSL for 0m - <2m in sand adopted for HSL-intrusive maintenance worker .

EIL: Ecological Investigation Level

ESL: Ecological Screening Level, ESL for coarse grained soil adopted.

NE: Not Established.

N/A: Not applicable (not a petroleum hydrocarbon)

NL: Not Limiting. Denotes that a soil vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.

All values in mg/kg unless otherwise specified.

Table F2 Adopted Groundwater Investigation Criteria (µg/L)

Analyte	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A & B)[16]
pH	NE	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	>5.5	NE
Metals							
Arsenic	3[7]	10	100	500	100	NE	NE
Barium	625[6]	2000	NS	2,000[18]	20,000	NE	NE
Beryllium	0.13[10]	60	100	60[18]	600	NE	NE
Boron	5,100[10]	4,000[9]	500	5,000	40,000[11]	NE	NE
Cadmium	5.5	2	10	10	20	NE	NE
Total Chromium	5[7]	50	100	1,000	-	NE	NE
Chromium VI	4.4	50	NS	50[18]	500	NE	NE
Cobalt	1	60[9]	50	1,000	60[9]	NE	NE
Copper	1.3	2000/1,000#	200	400	20,000/1,000#	NE	NE
Iron	300[10]	300#	200	NE	300#	NE	NE
Lead	4.4	10	2,000	100	100	NE	NE
Manganese	80[10]	500/100#	200	NE	5,000/100#	NE	NE
Mercury	0.4	1	2	2	10	NE	NE
Molybdenum	23[10]	50	10	150	500	NE	NE
Nickel	70	20	1,000	1,000	200	NE	NE
Selenium	3[10]	10	20	20	100	NE	NE

Analyte	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A & B)[16]
Tin	10[10]	12,000[9]	NE	12,000[9]	12,000[9]	NE	NE
Vanadium	100	86[9]	100[13]	100[13]	86[9]	NE	NE
Zinc	5[7]	3,000	20	20,000	3,000#	NE	NE
Inorganics							
Cyanide	4	80	NE	80[18]	80	NE	NE
Ammonia (as N)	910	412	NE	412[18]	412	NE	NE
Nitrate (as N)	7,200[15]	11,286	5,000*	90,293	112,866	NE	NE
Nitrite (as N)	60[13]	912	3,040[13]	9,119	9,119	NE	NE
Fluoride	NE	1,500	1,000	2,000	15,000	NE	NE
Sulphate (as SO_4)	NE	500,000/250,000	1,000,000	1,000,000	400,000	1,000,000	NE
Chloride	NE	NE	25,000-700,000[17]	NE	400,000[4]	6,000	NE
Sodium	NE	NE	115,000-	NE	300,000[4]	NE	NE
PAHs							
Anthracene	0.4[10]	NE	NE	NE	NE	NE	NE
Acenaphthene	5.8[13]	530[9]	NE	530[9]	530[9]	NE	NE
Benzo(a)pyrene	0.2[10]	0.01	NE	0.01[18]	0.01	NE	NE
Fluorene	3[13]	290[9]	NE	290[9]	290[9]	NE	NE
Fluoranthene	1.4[10]	800[9]	NE	800[9]	800[9]	NE	NE
Naphthalene	70[10]	1.7[9]	NE	1.7[9]	1.7[9]	NE	NL

Analyte	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A & B)[16]
Phenanthrene	2[10]	NE	NE	NE	NE	NE	NE
MAHs							
Benzene	700	1	NE	1[18]	1	NE	800
Toluene	180[10]	800/25#	NE	800/25[18#]	800/25#	NE	NL
Ethylbenzene	4[10]	300/3#	NE	300/3[18#]	300/3#	NE	NL
Xylene (m&p)	75[10]	190[9]	NE	190[9]	190[9]	NE	NE
Xylene (o)	350[10]	190[9]	NE	190[9]	190[9]	NE	NE
Xylene (sum)	NE	600/20#	NE	600/20[18#]	600/20#	NE	NL
Isopropylbenzene	30[10]	450[9]	NE	NE	450[9]	NE	NE
Styrene	72[13]	30/4	NE	30/4[18]	30/4	NE	NE
Total Petroleum Hydrocarbons							
TRH C6-C10	NE	NE	NE	NE	300[19]	NE	1,000
TRH >C10-C40	600[6]	600[6]	600[6]	600[6]	600[6]	NE	NE
Phenols							
2-methylphenol (o-	NE	930[9]	NE	930[9]	930[9]	NE	NE
3-&4-methylphenol	NE	930[9]	NE	930[9]	930[9]	NE	NE
2,4- dimethylphenol	2[10]	360[9]	NE	360[9]	360[9]	NE	NE
Phenol	400	NE	NE	NE	NE	NE	NE

Analyte	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A & B)[16]
Halogenated Aliphatics and Aromatics							
1,1 Dichloroethane	250[10]	27[9]	NE	27[9]	27[9]	NE	NE
1,1 Dichloroethene	700[10]	30	NE	30[18]	30	NE	NE
1,2 Dichloroethane	1,900[10]	3	NE	3[8]	3	NE	NE
Cis-1,2	970[12]	60	NE	60[8]	60	NE	NE
Trans-1,2	970[12]	60	NE	60[8]	60	NE	NE
1,1,1 Trichloroethane	270[10]	8,000[9]	NE	8,000[9]	8,000[9]	NE	NE
Trichloroethene	330[10]	4.9[9]	NE	30[4]/4.9[9]	30[11]/4.9[9]	NE	NE
Tetrachloroethene	70[10]	50	NE	50[18]	50	NE	NE
Vinyl Chloride	930[12]	0.3	NE	0.3[8]	0.3	NE	NE
Chlorobenzene	55[10]	300/10#	NE	300[8]	300/10#	NE	NE
1,4 Dichlorobenzene	60[10]	40/0.3#	NE	40[18]	40/0.3#	NE	NE
Dichloromethane	4,000[10]	4	NE	4[18]	4	NE	NE
Chloroform	370	250	NE	250[18]	250	NE	NE
Formaldehyde	50[6]	500	NE	500[18]	500	NE	NE

Notes:

1: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.

2: ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.

3: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.

4: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5: Australian Standard AS2159-2009 Piling Design and Installation.
6: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7: SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10
9: US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
11: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12: US EPA (2003) Region 5 Ecological Screening Levels.
13: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14: ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15: NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17: ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18: NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria)
19 WHO (2005). Note the values are based on health effects via ingestion and do not include aesthetic effects.

All values in ug/L.

NE: Not Established.

NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario

Table F3 Adopted Vapour Intrusion Screening Levels (mg/m³)

Analyte	Adopted vapour intrusion screening level (mg/m3)1
Tetrachloroethene	2[1]
Trichloroethene	0.02[1]
Cis-1,2 dichloroethene	0.08[1]
1,1 Dichloroethene	0.21[2]
Vinyl Chloride	0.03[1]
1,1,1-Trichloroethane	0.06[1]
1,2-Dichloroethane	2.4[3]
1,1-Dichloroethane	0.018[2]
Chloroethane	10[2]
Heptane	NE
Hexane	0.73[2]
1,2,4-Trimethylbenzene	0.22[4]
1,3,5-Trimethylbenzene	0.22[4]
2,2,4-Trimethylpentane	NE
TPH C6-C10 minus BTEX (F1)	640 / 1300 / 2600[1]
TPH >C10-C16 minus naphthalene (F2)	560 / 1200 / 2400[1]
Benzene	3 / 6 / 10[1]
Toluene	3800 / 7300 / 15000[1]
Ethylbenzene	1100 / 2200 / 4300[1]
Xylenes	750 / 1500 / 300[1]
Naphthalene	3 / 6 / 10[1]

Notes:

1: NEPC (2013) Health Screening Levels for high density residential use – Soil Vapour HSL B (for Sand 1m-<2m / 2m-<4m / 4m-<8m) or Interim HILB.

2: US EPA (November 2013) Regional Screening Levels for Residential Air adjusted by a factor of 10 to account for a TR = 1 x 10^{-5} and HI = 1.

3: ATSDR (2001) MRL.

4: Tolerable concentrations (MOE, 2007)

All values in mg/m³.

NE: Not Established

Table G Auditor review of the quality and completeness of LRM assessment data

Contents of Site Assessment Reports	
History of site uses	The site history investigation conducted by Alliance (February 2012) included a review of documentation related to site ownership and certificates of title, Royal Historical Society of Victoria records, Sands and McDougall Directories, council zoning and planning information, aerial photographs, licences and notices, Metropolitan Melbourne Board of Works plans, EnergySafe Victoria and Cathodic Protection Systems Database. WorkSafe Victoria Dangerous Goods Database, and audits completed for sites in the vicinity of the site. In August 2012 LRM reviewed the List of Treatment and Disposal Facitlities for Prescribed Wastes and the EPA Victoria database and revised site history information where necessary. The site history review is detailed in the Alliance (February 2012) Phase 1 ESA report and Sections 4 to 6 of the LRM (August 2014) Audit ESA report
History of adjacent land uses	Details of site and surrounding site history, industrial processes and storage of chemicals (or lack thereof) was obtained by Alliance and LRM from various sources of information as far as practicable and is provided in Sections 4 and 5 of the LRM (September 2014) Audit ESA report and in the Alliance Phase 1 Report (provided in Appendix B of the LRM report.
Identification and summary of previous environmental investigations	The Auditor is aware of a number of previous environmental site investigation works that were undertaken at the site prior to the commencement of the Audit site assessment works. These reported were reviewed by the Auditor for completeness and are included in Appendix B of the LRM (August 2014) Audit ESA report.
	The Alliance (February 2012) Phase 1 report detailed a review of one nearby audit site. LRM conducted an updated review of two Environmental Audit Reports from nearby sites in order to establish an understanding of local soil and groundwater conditions. Additionally, a review of nearby non-EPA Audit environmental assessments were conducted for two sites. The details of the reviews are provided in Sections 5.3 and 5.4 of LRM's (August 2014) Audit ESA Report
Identification of potential contaminants of concern	The site history review enabled a comprehensive list of potential contaminants to be identified. Details are provided in Section 7 of the Alliance (February 2012) Phase I ESA Report and incorporated in Section 7 of the LRM (August 2014) Audit ESA Report.

Visual Inspections	An initial site walkover and visual inspection of the site was undertaken by Allian ce in January 2012 prior to fieldwork as part of the Phase 1 assessment as described in Section 3 of the Alliance (February 2012) Phase I ESA Report. An additional site walkover was undertaken by LRM on xxx pre-demolition of the site buildings and is described in Section 6 of the LRM (August 2014) Audi ESA report. In addition to visual inspections performed by LRM, the Auditor and / or his Representative performed visual inspections during soil and groundwater sampling work in order to provide additional assurance of the site condition.
Geology and hydrology	Broad details of the geology and hydrogeology of the area were based on regional geological and hydrogeological survey data (including a groundwater database search). Actual observations of soil and groundwater were undertaken during sampling as described in Sections 12 and 15 of the LRM (August 2014) Audit ESA Report.
Condition of site structures & water courses	At the commencement of the Audit, the site was occupied by a double storey brick building and two single storey concrete/brick/cement sheet buildings utilised for a combination of office, showroom and factory space with asphalt car parking areas and a grassed area in the southwestern corner of the site. It was noted by LRM (August 2014) that prior to demolition of the site following vacation by tenants, very little access was available due to the large volume of stored furniture and abandoned equipment within the site buildings. During this period all previous boreholes, site drainage features and other underground assets were identified and surveyed by a licensed surveyor for the purposes of location identification and sample repeatability and delineation following the removal of the concrete slab. At the completion of the Audit, the site was vacant and all buildings, associated infrastructure and surface concrete had been demolished and removed from site. An active substation building remains of the northern central portion of the site. This cannot be disconnected until a new substation is built and commissioned, a period likely to be approximately 12-18 months
	No bodies of water or natural water courses (either flowing or ephemeral) were present on-site. The nearest water body is Port Phillip Bay located approximately 2.7km south west of the site at its nearest point. Based on the inferred direction of groundwater flow to be towards south west as indicated by LRM, it is considered that Port Phillip Bay located east of the site, as the closest surface water receptor, is the discharge point for groundwater from the site.
	Details relating to the condition of the site, natural water courses, potential presence of underground storage tanks, waste disposal areas or any other structures as applicable, are addressed in Section 3.4 and 6 of LRM's (August 2014) Audit ESA Report.
Analytical detection limits	LRM did not request specific laboratory detection limits for soil analysis. Standard laboratory detection limits were adopted, which by default, were typically one fifth of the NEPM EIL (or NEPM HIL where this is lower) for soil.

	Low level detection limits were requested for vinyl chloride and formaldehyde analysis in groundwater.
	Generally, laboratory detection limits for LRM analyses were lower than the adopted investigation criteria for the contaminants of concern.
Scope of Site Investigations to support an Environmental Audit	
Sampling & analysis program	The approach to the site assessment was developed by LRM following consultation with the Auditor. The scope and design of the sampling and analysis plans gave appropriate consideration to background information, surrounding sites, history and visual inspections and data obtained as part of the initial works by Alliance.
	In April 2012, Alliance undertook a soil investigation comprising the installation of 50 soil bores (BH1 to BH49 and MW9) across the site to target potential sources of contamination. Soil bores extended to a maximum of 2.1mbgs, with the exception of 10 bores bore extended to a maximum of 11.6mbgs for the purposes of installing groundwater wells MW1 to MW9 and MW9A. With the exception of locations B28, B48 and B49 boreholes intercepted natural material; locations B28, B48 and B49 terminated in fill on cobbles. Soil samples were collected using a hand auger and samples were analysed for a range of inorganic and organic parameters including metals, TRH, MAH, oxygenated compounds, sulfonated compounds, fumigants, halogenated aliphatic and aromatic compounds and trihalomethanes, phenolic compounds, PAHs, phthalates, nitrosamines, nitroaromatics and ketones, haloethers, chlorinated hydrocarbons, anilines, benzidines, OCPs, OPPs and PCBs, pH, total and free cyanide, total phosphorous, total sulphur, nitrite and nitrate. Elevated concentrations of metals, PAHs and TRH fractions F2 and F3 were reported in fill material with elevated concentrations of lead, vanadium and PAHs reported in natural soil. pH concentrations in the range 5.8 to 9.9 units, outside of the adopted soil criteria range of 6 to 8 units, were also reported in soil.

Sampling & analysis program (continued)	Subsequently, between February to August 2014, LRM undertook additional soil assessment works comprising the installation of 45 testpits (TP01 to TP45) and 4 soil bores (TP14-BH, TP15-BH, TP16-BH, TP31-BH) to confirm the contamination status of fill and natural soils in areas previously investigated by Alliance; ensuring that all areas of the site were covered by a grid; and targeted potential sources of contamination at the site that had not been investigated by Alliance. Testpits extended to a maximum of 2.0mbgs and all testpits intercepted natural soils, including testpits TP22, TP15 and TP16 installed adjacent to Alliance bores B28, B48 and B49 respectively. Soil samples were also collected during the installation of groundwater monitoring wells MW10 to MW13, MW24 and SW1 to SW15; and one additional grab sample (G1) was collected adjacent to well MW9. Soil samples were analysed for a wide range of inorganic and organic parameters depending on historical use of the areas of the site sampled. Details of the soil sampling and analysis works undertaken by LRM are provided in Sections 8 and 10 of LRM's (August 2014) Audit ESA report. Soil remediation works at the site included the removal and off-site disposal of fill following the demolition of buildings and removal of the concrete slab; asbestos abatement works, comprising the off-site disposal of fill containing ACM, and the inspection of any residual fill by Elite Environmental Solutions Pty Ltd under the supervision of a suitably qualified hygienist on 25th August 2014; the removal and validation of two USTs associated with the boiler house in the northern part of the site; five validation soil samples were collected from the walls and floor of the UST excavation with validation samples analysed for TRH, BTEX, lead and VCHs; and the removal and validation of the TIT present in the north-western part of the site: One validation sample was collected from the floor of the TIT excavation and analysed for a wide range of potential contaminates of concern including TRH, BTEX, phenols, metals, PAHs, OCPs, phthalates, halogenated aliphatics and aromatics including VCHs.
	Asbestos containing material in the form of cement sheeting was observed within surface fill material located beneath the concrete slab of the on-site structures. This material was subsequently removed on by a licensed asbestos removalist as described within Section 11 of the LRM (August 2014) Audit ESA report.

Sampling & analysis program (continued)	In consideration of Section 13 and Figure 2 of the Guidelines for Issue of Certificates and Statements of Environmental Audit (EPA, February 2014), the Auditor requested that a physical groundwater assessment be undertaken given that the historical use of the site for carpet manufacturing and the identification of groundwater pollution at sites in the vicinity of the Audit site. The groundwater investigation included the installation a total of 40 on-site groundwater monitoring wells to characterise the perched and deep aquifer at the site comprising: Perched (Quaternary) aquifer: On-site Well MW9A (installed by Alliance prior to the commencement of the Audit) and on-site wells SW1 to SW15 (installed by LRM over the course of the Audit); Deep (Brighton Group) aquifer: On-site wells MW1 to MW4 and MW7 to MW9, and off-site wells MW5 and MW6 (installed by Alliance prior to the commencement of the Audit) and on-site wells MW10 to MW24 (installed by LRM over the course of the Audit); One round of groundwater monitoring was undertaker by Alliance prior to the commencement of the Audit and six and nine rounds of groundwater monitoring were undertaken by LRM over the course of the Audit for the perched and deep aquifer wells respectively. Groundwater samples from both the perched and deep aquifers were analysed for metals, TRH & VOCs (MAH, oxygenated compounds, sulfonated compounds, fumigants, halogenated aliphatic and aromatic compounds and trihalomethanes), SVOCs (phenolic compounds, PAHs, phthalates, nitrosamines, nitroaromatics and ketones, haloethers, chlorinated hydrocarbons, acrylates, anilines and benzidines), OCPs, OPPs and PCBs, formaldehyde, pH, TDS, total cyanide, fluoride, sulphate, chloride, ammonia, nitrite, nitrate, phosphorus, alkalinity, major anions & cations. Groundwater sample from deep aquifer wells MW4 and MW7 (located on the southern site boundary and in the centre of the site respectively) were also analysed for acetaldehyde. It is noted that wells SW03, SW04, SW11, SW12 and SW14 were reported to be dry in all groundwater gauging rounds and were therefore unable to be sampled. No light or dense non-aqueous phase liquid (NAPL) was identified during any gauging or sampling round.
	Details regarding the groundwater sampling works are provided in Sections 15, 17 and 18 of LRM's (August 2014) Audit ESA Report.
Compliance with approved methods/ protocols	Soil sampling was undertaken in accordance with AS4482.1-2005 for non-volatile and semi-volatile compounds and generally in accordance with AS4482.2–1999 for volatile substances.
	The number of test points advanced at the site was greater than the minimum number of test points required by AS4482.1-2005.
	The sampling and analysis strategy for soil is discussed in Section 8 (analysis) and Section 10.3 (sampling methodology) of the LRM (August 2014) Audit ESA report.

	The sampling and analysis strategy for groundwater is discussed in Sections 15.2 and 15.5 of the LRM (August 2014) Audit ESA Report.
	The construction of the monitoring wells was based on the techniques and recommendations established in the Groundwater Sampling Guidelines by the State Environment Protection Policy to protect the groundwater from cross contamination between aquifers.
	All soil and groundwater sampling was conducted in general accordance with EPA Publication 669 (Groundwater Sampling Guidelines) and EPA Publication IWRG 701 (Sampling and Analysis of Waters, Wastewaters, Soils and Waste).
	The LRM report contains a limitations section which draws attention to the fact that, as with all site assessments, the data were derived from a number of grid and target locations at a specific point in time and that changes to site conditions are possible at a later date.
Laboratory accreditation	LRM used Eurofins MGT Pty Ltd and Envirolab Services Pty Ltd as primary laboratories, with ALS Pty Ltd and MPL LaboratoriesPty Ltd being used for independent check analyses.
	All extractions and analyses for the primary data set were completed within recommended holding times.
	All analysing laboratories selected by LRM carry NATA accreditation for the analyses undertaken, and all laboratory reports were NATA endorsed.
Site plans & bore logs	Site plans/figures are presented in Appendix A of the LRM (August 2014) Audit ESA Report. The figures in Appendix A depict the general site layout, location of former site infrastructure, as well as soil borehole locations, groundwater monitoring locations and soil validation sample locations..
	Test pit logs (TP1-TP45 and groundwater monitoring well installation log/diagrams for MW9A, MW10-MW24, and SW1-SW15 (installed as part of the groundwater assessment program by LRM) are presented in Appendix D of the LRM (August 2014) Audit ESA Report.
Quality assurance	A quality assurance / quality control (QA/QC) programme (Section 20 of the LRM (August 2014) Audit ESA Report) was adopted throughout assessment works and provides assurance of the quality/reliability of the data.
	A full discussion of the QA/QC programme is provided in Section 5.6 and Appendix E of this report.
Background samples	Given the site setting and the limited access to undisturbed off-site areas, samples of (apparently) natural soil below the encountered fill were used as representing background conditions.
	Off-site "*background*" groundwater data was obtained through a review of Environmental Audits previously conducted within the general vicinity of the site.

Soil screens/ targeted chemicals	The soil analysis programme focused on potential contaminants of concern identified via a site background review, as identified in Section 7 of the Alliance (February 2012) Phase I ESA Report, and in Section 7 of the LRM (August 2014) Audit ESA Report. In addition, analysis of fill material encompassed a broad range of contaminants with consideration given to the analytes detailed in the NEPM (2013), AS4482.1-2005 and AS4482.2-1999.
Other environmental hazards	With the exception of visual observations of asbestos containing materials (ACM) as already described above, no other environmental hazards were identified during the site background investigations undertaken by LRM.
Information Required for Chemicals of Concern	
Chemical properties	An interpretation of soil and groundwater results for the chemicals of concern has been provided in Sections 11 to 13, and 17 to 18 of the LRM (August 2014) Audit ESA Report. Where relevant, comments regarding the characteristics (i.e. mobility, availability, physical characteristics, species present etc), potential exposure pathways, potential harm to beneficial uses have been provided.
Form/species	A comparison with established guideline concentrations has been made in order to complete a preliminary assessment of the toxicity of the chemicals of potential concern. However, it is noted that for some analytes the Auditor has referenced additional international criteria.
Physical characteristics	
Potential exposure pathways	
Potential harm	
Detriment to beneficial uses	
Potential off-site effects	
Assessing the Significance of Site Investigation Results	
Reference to Land SEPP	The significance of soil assessment results are assessed against the Objectives in the SEPP *Prevention and Management of Contamination of Land* 2002, as discussed in Section 13.1 of the LRM (August 2014) Audit ESA Report.
Evaluation of risk	An evaluation of risk was undertaken by comparison with established NEPM guidelines, as discussed in Section 12.1 of the LRM (August 2014) Audit ESA Report.
Compliance of risk evaluation with NEPM	Given contaminant concentrations in soil exceeded the NEPM 2013 guidelines, a health risk assessment (HRA) was undertaken by Coffey Environments to evaluate potential health risks associated with the elevated chemical concentrations identified in soil and groundwater at the site.
Use of other guidelines	In some cases, other published guideline values have been used to evaluate risk. These are referenced as appropriate. It is noted that where site specific EILs were not calculated, international criteria has been referenced.

Consideration of impact to all beneficial uses	The evaluation of risks posed by contamination has included potential impacts on all beneficial uses of the site.
	The auditor has provided additional comments regarding potential impacts to beneficial uses of the site in later sections of this report.
Appropriate use of waste classification criteria	Asbestos removal works documentation is presented in Appendix K of LRM's (August 2014) Audit ESA Report. In addition, EPA waste transport certificates for off-site disposal of soil generated during UST removal works are provided as Appendix J of LRM's (August 2014) Audit ESA Report.

Table H : Groundwater Contamination Status – VCHs, August 2014 (µg/L)

Well	cis-1,2 DCE	TCE	PCE	trans-1,2 DCE	Vinyl chloride	1,1,1-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Chloroform
Deep Aquifer										
MW01	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW02	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	6	0.9	<0.5	<1
MW03	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW08	0.5	1	4	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	3
MW09	13	7	1	2	<0.3	<0.5	<0.5	1	<0.5	<1
MW10	2	0.7	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	21
MW11	<0.5	<0.5	0.8	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW12	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW13	0.7	0.7	<0.5	<0.5	4	2	1,400	220	5	<1
MW14	1	<0.5	<0.5	<0.5	<0.3	<0.5	14	4	<0.5	<1
MW15	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW16	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW17	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW18	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	8	8	<0.5	<1
MW19	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	2	<0.5	<0.5	<1
MW20	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW21	5	4	1	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW22	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW23	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<1
MW24	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	1	<0.5	<0.5	<1
Perched Aquifer										
SW01	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW02	<0.5	1	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW03	Dry									
SW04	Dry									
SW05	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW06	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW07	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW08	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5

Well	cis-1,2 DCE	TCE	PCE	trans-1,2 DCE	Vinyl chloride	1,1,1-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Chloroform
SW09	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW10	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW11	Dry									
SW12	Dry									
SW13	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
SW14	Dry									
SW15	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5
MW9AR	51	74	320	0.6	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5

Table I: Adopted Groundwater Investigation Criteria for VCHs (µg/L)

Analyte	Maintenance of Ecosystems[1]	Potable Water Supply[5]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]
1,1 Dichloroethane	250[10]	27[9]	NE	27[9]	27[9]
1,1 Dichloroethene	700[10]	30	NE	30[18]	30
1,2 Dichloroethane	1,900[10]	3	NE	3[8]	3
Cis-1,2 Dichloroethene	970[6]	60	NE	60[8]	60
Trans-1,2 Dichloroethene	970[6]	60	NE	60[8]	60
1,1,1 Trichloroethane	270[10]	8,000[9]	NE	8,000[9]	8,000[9]
Trichloroethene	330[10]	4.9[9]	NE	30[4]/4.9[9]	30[7]/4.9[9]
Tetrachloroethene	70[10]	50	NE	50[5]	50
Vinyl Chloride	930[6]	0.3	NE	0.3[8]	0.3
Chloroform	370	250	NE	250[5]	250

Notes:
1: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2: ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5: NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).
6: US EPA (2003) Region 5 Ecological Screening Levels.
7: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".

8: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10. # denotes aesthetic criteria. Unless otherwise specified.
9: US EPA (May 2014) Regional Screening Levels for Tap Water (guideline cobalt, for naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels.
All values in ug/L.

NE: Not Established

Table J: Summary of Groundwater Results – Perched Aquifer

Contaminant	Concentration Range (µg/L)		Guideline Values (µg/L)						
	On-site Range	9-41 Charlton Avenue	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A)[16]
Analytes considered by the Auditor to be natural in nature and hence not pollution									
pH	5.2-8.1	5.43-12.4	NE	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	>5.5	NE
Aluminium	980-1,400	NA	0.5[10]	200#	5,000	5,000	200#	NE	NE
Iron	19-1,500	NA	300[10]	300#	200	NE	300#	NE	NE
Analytes considered by the Auditor to be regional in nature or from an upgradient source									
Arsenic	2-5	<1-24	3[7]	10	100	500	100	NE	NE
Copper	5-24	<1-27	1.3	2,000/1,000#	200	400	20,000/1,000#	NE	NE
Manganese	<5-820	<1-1,820	80[10]	500/100#	200	NE	5,000/100#	NE	NE
Molybdenum	17-41	NA	23[10]	50	10	150	50	NE	NE
Nickel	5-180	2-107	70	20	1,000	1,000	200	NE	NE
Zinc	3-79	<5-16,100	5[7]	3,000	20	20,000	3,000#	NE	NE
Nitrate (as N)	<1-190,000	<10-2,050	7,200[15]	11,286	5,000*	90,293	112,866	NE	NE
Analytes considered by the Auditor to be sourced from the site									
TRH C6-C10	30-540	<20-340	NE	300[19]	NE	300[19]	300[19]	NE	1,000
TRH >C10-C40	<50-2,100	<100-42,900	600[6]	600[6]	600[6]	600[6]	600[6]	NE	NE
Trichloroethene	<0.5-74	<0.05-<5	330[10]	4.9[9]	NE	4.9[9]	4.9[9]	NE	NE
Tetrachloroethene	<0.5-320	<0.05-<5	70[10]	50	NE	50[18]	50	NE	NE

Notes:

1: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2: ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5: Australian Standard AS2159-2009 Piling Design and Installation.
6: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7: SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10. # denotes aesthetic criteria. Unless otherwise specified.
9: US EPA (May 2014) Regional Screening Levels for Tap Water (guideline for cobalt, naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels for marine waters (95%) or freshwater guideline (95%) adopted in the absence of a marine guideline.
11: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12: US EPA (2003) Region 5 Ecological Screening Levels.
13: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14: ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15: NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17: ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18: NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).

All values in µg/L.
NE: Not Established.
NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario
Groundwater analytical results from Round 6 not considered.

Table K: Summary of Groundwater Results – Deep Aquifer

Contaminant	Concentration Range (µg/L)				Guideline Values (µg/L)						
	On-site Range	9-41 Charlton Avenue (downgradient)	10/12 Phillip Street (upgradient)	18-22 Hamlet Street (upgradient)	Maintenance of Ecosystems[1]	Potable Water Supply[18]	Agriculture, Parks and Gardens[2]	Stock Watering[3]	Primary Contact Recreation[8]	Buildings and Structures[5]	Human Health – Vapour Intrusion (HSL-A)[16]
Analytes considered by the Auditor to be natural in nature and hence not pollution											
pH	4.7-7.4	5.04-6.55	NA	5.14-7.68	NE	6.5-8.5	6-8.5	6.5-8.5	6.5-8.5	>5.5	NE
Aluminium	<50-180	NA	NA	NA	0.5[10]	200#	5,000	5,000	200#	NE	NE
Iron	<50-2,800	NA	<50-110	<50-30,800	300[10]	300#	200	NE	300#	NE	NE
Selenium	<1-21	NA	NA	NA	3[10]	10	20	20	100	NE	NE
Analytes considered by the Auditor to be regional in nature or from an upgradient source											
Arsenic	1-5	<1-1	<1-4	<1-305	3[7]	10	100	500	100	NE	NE
Total chromium	<1-39	<1-2	<1-3	<1-20	5[7]	50	100	1,000	500	NE	NE
Cobalt	<1-15	<1-5	NA	<1-279	1	60[9]	50	1,000	60[9]	NE	NE
Copper	<1-8	<1-11	2-65	<1-71	1.3	2,000/1,000#	200	400	20,000/1,000	NE	NE
Lead	<1-15	<1-2	<1	<1-44	4.4	10	2,000	100	100	NE	NE
Manganese	<5-290	<1-118	NA	<1-1,190	80[10]	500/100#	200	NE	5,000/100#	NE	NE
Nickel	5-190	5-119	3-75	<1-134	70	20	1,000	1,000	200	NE	NE
Zinc	3-240	16-221	8-90	<5-554	5[7]	3,000	20	20,000	3,000#	NE	NE
Nitrate (as N)	10-55,000	<10-3,990	NA	<10-116,000	7,200[15]	11,286	5,000*	90,293	112,866	NE	NE
Nitrite (as N)	<10-1,490	<10-240	NA	<10-1,310	60[13]	912	3,040[13]	9,119	9,119	NE	NE
Fluoride	200-1,100	<100-800	NA	<100-1,300	NE	1,500	1,000	2,000	15,000	NE	NE
Analytes considered by the Auditor to be sourced from the site (and/co-sourced)											
Trichloroethene	<0.01-20.5	<0.05-<5	<0.05-0.38	<5-423,000	330[10]	4.9[9]	NE	4.9[9]	4.9[9]	NE	NE
1,2 Dichloroethane	<0.01-5	<0.1-<5	<0.1	<1-2,930	1,900[10]	3	NE	3	3	NE	NE
1,1 Dichloroethane	<0.1-1,500	<0.1-<5	<0.1	<5-622	250[10]	27[9]	NE	27[9]	27[9]	NE	NE
1,1 Dichloroethene	0.01-280	<0.1-<5	<0.1	<5-2,720	700[10]	30	NE	30[18]	30	NE	NE
Vinyl Chloride	<0.03-4	<0.5-<50	<0.5	<5-440	930[12]	0.3	NE	0.3[18]	0.3	NE	NE

Notes:
1: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. 95% trigger values for marine water.
2: ANZECC/ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Water Quality for Irrigation and General Water Use – Long-term Trigger Values. Unless otherwise specified.
3: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Livestock Drinking Water" – Unless otherwise specified.
4: ANZECC (1992) Australian Water Quality Guidelines for Fresh and Marine Waters – Raw Water criteria.
5: Australian Standard AS2159-2009 Piling Design and Installation.
6: Netherlands (2009) Circular on Target Values and Intervention Values for Soil Remediation. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government (Groundwater Intervention Value).
7: SEPP (1999) Variation of the State Environmental Protection Policy (Waters of Victoria) - Insertion of Schedule F6, Waters of Port Phillip Bay. Unless otherwise specified.
8: NHMRC/NRMMC (2008) Guidelines for Managing Risks in Recreational Water (Health / Aesthetic) that defaults to NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria). Human health criteria for non-volatile chemicals adjusted by a factor of 10. # denotes aesthetic criteria. Unless otherwise specified.
9: US EPA (May 2014) Regional Screening Levels for Tap Water (guideline for cobalt, naphthalene, 1,1 DCA &TCE multiplied by a factor of 10 to account for Australian TR of 10^{-5}).
10: ANZECC (2000) National Water Quality Management Strategy. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Low Reliability Trigger Levels for marine waters (95%) or freshwater guideline (95%) adopted in the absence of a marine guideline.
11: ANZECC (2000) National Water Quality Management Strategy. Australian Water Quality Guidelines for Fresh and Marine Waters "Recreational Waters".
12: US EPA (2003) Region 5 Ecological Screening Levels.

13: CCME (2007) Canadian Water Quality Guidelines for the Protection of Aquatic Life/Agriculture - Freshwater or Livestock criteria. Freshwater guidelines adopted according to the recommendations of ANZECC (2000).
14: ANZECC (2000). Adopted concentration range for sodium is based on Table 4.2.8 for the prevention of foliar injury to crops.
15: NIWA (2002) Nitrate guideline values in ANZECC 2000. Freshwater guideline adopted as per section 8.3.7 of ANZECC (2000).
16: NEPC (2013) Health Screening Levels – Groundwater HSL-A (Low Density Residential) for Sand 2 to <4m, adopted for information purposes only.
17: ANZECC (2000). Adopted range for chloride concentration is based on foliar injury to sensitive crops as detailed in Section 4.2.5.2 and Table 4.2.6.
18: NHMRC/NRMMC (2011) National Water Quality Management Strategy. Australian Drinking Water Guidelines (# denotes aesthetic criteria).
All values in µg/L.
NE: Not Established.
NL: Not Limiting. Denotes that a groundwater vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.
Groundwater analytical results from Round 6 not considered

Appendix A
Statement of Environmental Audit (Area of the site excluding electrical substation) & GQMP

Environmental Audit Report
33 Jack Road, Cheltenham, Victoria, 3192

ENVIRONMENT PROTECTION ACT 1970

STATEMENT OF ENVIRONMENTAL AUDIT

I, Peter Mirkov of Peraco Environmental Services Pty Ltd, a person appointed by the Environment Protection Authority ('the Authority') under the *Environment Protection Act* 1970 ('the Act') as an environmental auditor for the purposes of the Act, having

1. been requested by Mr Peter Gillon of Jack Road Investments Pty Ltd to issue a certificate of environmental audit in relation to the Site located at 33 Jack Road, Cheltenham, Victoria, 3192; defined as Lot 1 on proposed Plan of Subdivision PS713815C and Lot 2 on Plan of Subdivision 138747 (Volume 09479 Folio 505), this Statement covers the total Site area excluding an existing Electrical Substation (Figure 1A) ('the Site') owned/occupied by Jack Rd Investments Pty Ltd;

2. had regard to, among other things,
   I. guidelines issued by the Authority for the purposes of Part IXD of the Act,
   II. the beneficial uses that may be made of the Site
   III. relevant State environment protection policies/industrial waste management policies, namely

      SEPP Groundwaters of Victoria

      SEPP Waters of Victoria

      SEPP Ambient Air Quality & Air Quality Management

      SEPP Prevention and Management of Contamination of Land

      IWRG Industrial Waste Resource Guidelines

   in making a total assessment of the nature and extent of any harm or detriment caused to, or the risk of any possible harm or detriment which may be caused to, any beneficial use made of the Site by any industrial processes or activity, waste or substance (including any chemical substance), and
3. completed an environmental audit report in accordance with section 53X of the Act, a copy of which has been sent to the Authority and the relevant planning and responsible authority.

HEREBY STATE that I am of the opinion that

The Site is suitable for the beneficial uses associated with sensitive (medium to high density), recreational / open space, commercial and industrial land uses

subject to the following conditions attached thereto:

A. The Site must be covered with a physical barrier, such as a building slab, road or paving in the layout presented in the development plans for the Site (refer to Figure 2A). This Statement is linked to the pattern of use defined in the development plans, any substantive change to this development must be accepted by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the development authority.

B. Any landscaped area or garden bed must have at least 0.5m thickness of soil below the finished surface, which is demonstrated to be suitable for the Site [with consideration for aesthetics and the criteria listed within the Audit Report (reference J8427-R02)] and consistent with IWRG 621 as 'Fill Material'.

C. All surfaces and structures forming the physical barrier (as prescribed in Condition A above), if subsequently damaged or removed during development or occupation of the Site, must be reinstated as soon as possible and to the same condition or better than they were prior to disturbance.

D. A vapour mitigation system must be designed by a suitably qualified professional and accepted by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the development authority. The vapour mitigation system is to be designed for all occupiable buildings, and any associated single level basements, within the area as shown on the attached Figure 3A**.** The vapour mitigation system must be installed beneath occupiable buildings, and any associated basements, within the area designated in Figure 3A by a qualified professional and the installation confirmed by an environmental auditor appointed pursuant under Part IXD of the Environment Protection Act 1970 in writing to EPA and the planning authority at completion. The vapour mitigation system may be omitted in the event that the area encompassing the contaminated perched groundwater [as defined by Figure 3A] is remediated to levels where vapour risks to the proposed development no longer exist, such omission must be approved by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the development authority.

E. A marker layer made of para-webbing material or similar marker layer material is required to be placed over the contaminated shallow perched groundwater to indicate when potentially contaminated perched groundwater may be encountered. The marker layer should be continuous, durable and visibly different to other construction materials at the Site. The marker layer should be placed at a maximum depth of 0.5 metres below finished ground surfaces and should cover the area as shown in attached Figure 3A (excluding areas where the vapour mitigation system is installed). The marker layer should also be identified in the Site development plan (and/or Section 173 or similar at the discretion of the responsible authority). The marker layer may be omitted in the event that the area encompassing the contaminated perched groundwater [as defined by Figure 3A] is remediated to levels where vapour risks and/or dermal contact risks to the proposed development no longer exist, such omission must be approved by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the development authority.

F. A Contamination Management Plan (CMP) for the contaminated shallow perched groundwater [as defined by the area as shown on Figure 3A] must be developed for the Site by a suitably qualified professional and accepted by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the planning authority. The CMP must at a minimum include measures to prevent exposure to contaminated perched groundwater by residents, construction workers and maintenance workers and provisions for the management of any extracted groundwater during short term construction or long term basement seepage or alike. The CMP may be omitted in the event that the area encompassing the contaminated perched groundwater [as defined by Figure 3A] is remediated to levels where vapour risks, water disposal restrictions and/or dermal contact risks to the proposed development no longer exist, such omission must be approved by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the development authority.

G. No residential occupation or associated use in any part of a stage of the development may commence without the requirements of Conditions A, B, C, D E and F having been met and verified in writing by an

environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the planning authority.

H. Groundwater at the Site is polluted. Groundwater must not be used for any beneficial use without prior testing and review of results by an EPA appointed environmental auditor, appointed under Part IXD of the Environment Protection Act 1970, to confirm its suitability for that use. It may be extracted for the purpose of environmental monitoring or remediation.

I. A Groundwater Quality Management Plan (GQMP) has been formulated for the Site as part of this audit, and a copy is attached to this Statement of Environmental Audit (SoEA) [GQMP prepared by Peraco Environmental Services Pty Ltd, reference J8427-R03, dated 2 October 2014]. It is a requirement of this SoEA that the ongoing monitoring and management of groundwater be implemented as detailed in the GQMP. The GQMP may be omitted in the event that the area encompassing the contaminated perched groundwater [as define by Figure 3A] is remediated to levels where vapour risk and dermal contact risks to the proposed development no longer exist. Such omission must be approved by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this must be advised in writing to the EPA and the development authority.

J. It is a condition of this SoEA that all conditions of the GQMP be complied with.

The condition of the Site is detrimental or potentially detrimental to any (one or more) beneficial uses of the Site. Accordingly, I have not issued a certificate of environmental audit for the Site in its current condition, the reasons for which are presented in the environmental audit report. The terms and conditions that need to be complied with before a certificate of environmental audit may be issued are set out as follows:

i). Clean-up of polluted groundwater such that all beneficial uses of groundwater are restored.

ii). Residual polluted land remaining on-Site is remediated such that all beneficial uses of land are restored, or it is demonstrated that all elements of land at the Site do not pose an unacceptable human health and/or environmental risk through appropriate risk-based assessment

Other related information

1. The Auditor has determined that
    a. Groundwater has been cleaned up to the extent practicable; and
    b. The Auditor has recommended that the Site is designated as a Groundwater Quality Restricted Use Zone (GQRUZ). The extent of the proposed GQRUZ is shown on Figure 4A appended to this SoEA.
2. In accordance with Clause 19(3) of the SEPP (GoV) the EPA may require periodic reassessment of the practicability of groundwater clean-up.
3. The extractive beneficial uses ‘Potable Water Supply’, ‘Agriculture, Parks and Gardens’, ‘Stock Watering’, ‘Primary Contact Recreation’ and ‘Industrial Use’ are precluded by one or more of TRH C6-C10, TRH >C10-C40, trichloroethene, tetrachloroethene in the perched groundwater aquifer (at approximate depths of 0.5-2mbgs.
4. The extractive beneficial uses ‘Potable Water Supply’, ‘Stock Watering’ and ‘Primary Contact Recreation’ and ‘Industrial Use’ are precluded by one or more of trichloroethene, 1,2 dichloroethane, 1,1 dichloroethane, 1,1, dichloroethene and vinyl chloride in the deep groundwater aquifer (at approximate depths of 7-10mbgs).
5. Elevated concentrations of aluminium, iron, pH, selenium, arsenic, cobalt, copper, total chromium, lead, manganese, molybdenum, nickel, zinc, fluoride, nitrate and nitrite within the shallow and/or deep aquifer are

not considered to be derived from the Site itself. The presence of these elevated metals/contaminants may preclude one or more of the following beneficial uses: 'Maintenance of Ecosystems', 'Potable Water Supply', 'Agriculture, Parks and Gardens', 'Stock Watering', 'Primary Contact Recreation' and 'Industrial Use'. Volatile chlorinated hydrocarbon contamination of perched and deeper groundwater beneath the Site is the result of polluted sources from the Site as well as from upgradient sources (ie the Site is a co-source of chlorinated hydrocarbons contamination).

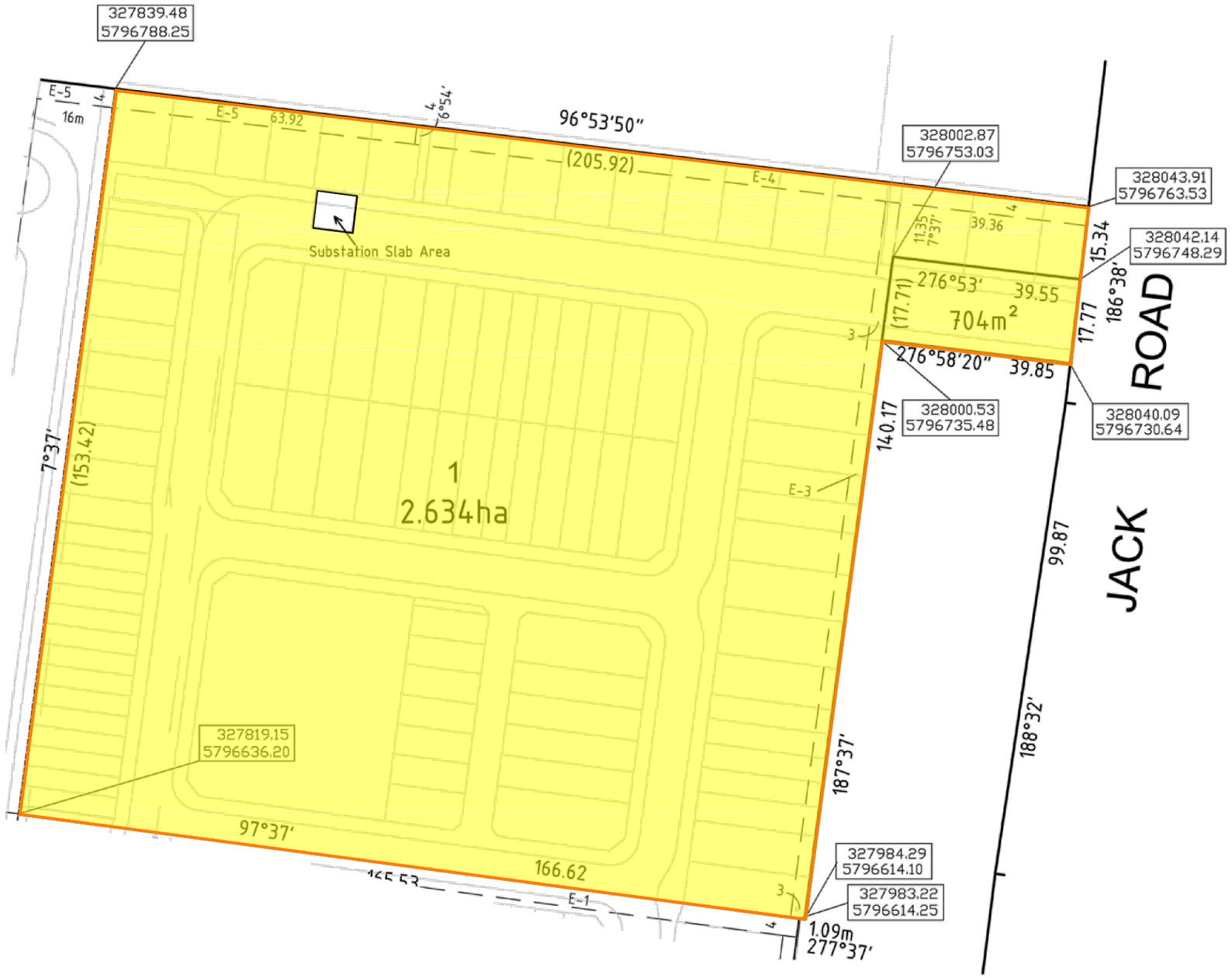
6. If double level basements are proposed within the development the need for vapour mitigation systems (as described under Statement Condition D) must be assessed by an EPA appointed auditor and such need communicated to the EPA and relevant planning authority.
7. Asbestos containing materials were found on the Site and have been removed as far as practicable. Small quantities of bonded asbestos cement (AC) fragments may remain within the soil and be uncovered during excavation works. These AC fragments are not anticipated to represent a health risk to occupiers of the completed development. If encountered during future development or use of the Site, any fragments should be handled and disposed in accordance with the relevant regulations.
8. Any soils and/or rock to be excavated from the Site and disposed of off-Site must be classified and managed in accordance with relevant statutory regulations and EPA guidelines (e.g. IWRG 621).
9. Any fill or soil imported to the Site shall be chemically tested soil or fill that classifies as "fill material" in accordance with relevant EPA guidelines.
10. Any groundwater monitoring bores present at the Site not required as part of the GQMP should be decommissioned in accordance with the requirements of "Minimum Construction Requirements for Water Bores in Australia", published by the Land and Water Biodiversity Committee (as amended).
11. In accordance with section 53ZE of the Environment Protection Act 1970 the owner/occupier of the Site must provide a copy of this SoEA and the Contaminant Management Plans to any person who becomes or proposes to become an occupier of the Site.
12. Two separate Statements of Environmental Audit have been issued for the proposed development which includes this Site. This Statement which covers the majority of the designed audit boundary, and a second Statement which covers an existing electrical substation. The soil beneath the substation could not be safely accessed for investigation purposes and as such this small part of the development (as identified in Figure 1B) was issued a separate Statement.

This statement forms part of environmental audit report *(Peraco Environmental Services Pty Ltd, Environmental Audit Report, 33 Jack Road, Cheltenham, 3192, Report Number J8427-R02, 2nd October 2014*). Further details regarding the condition of the Site may be found in the environmental audit report.

DATED 2nd October 2014

Signed

Peter Mirkov
ENVIRONMENTAL AUDITOR



peraco

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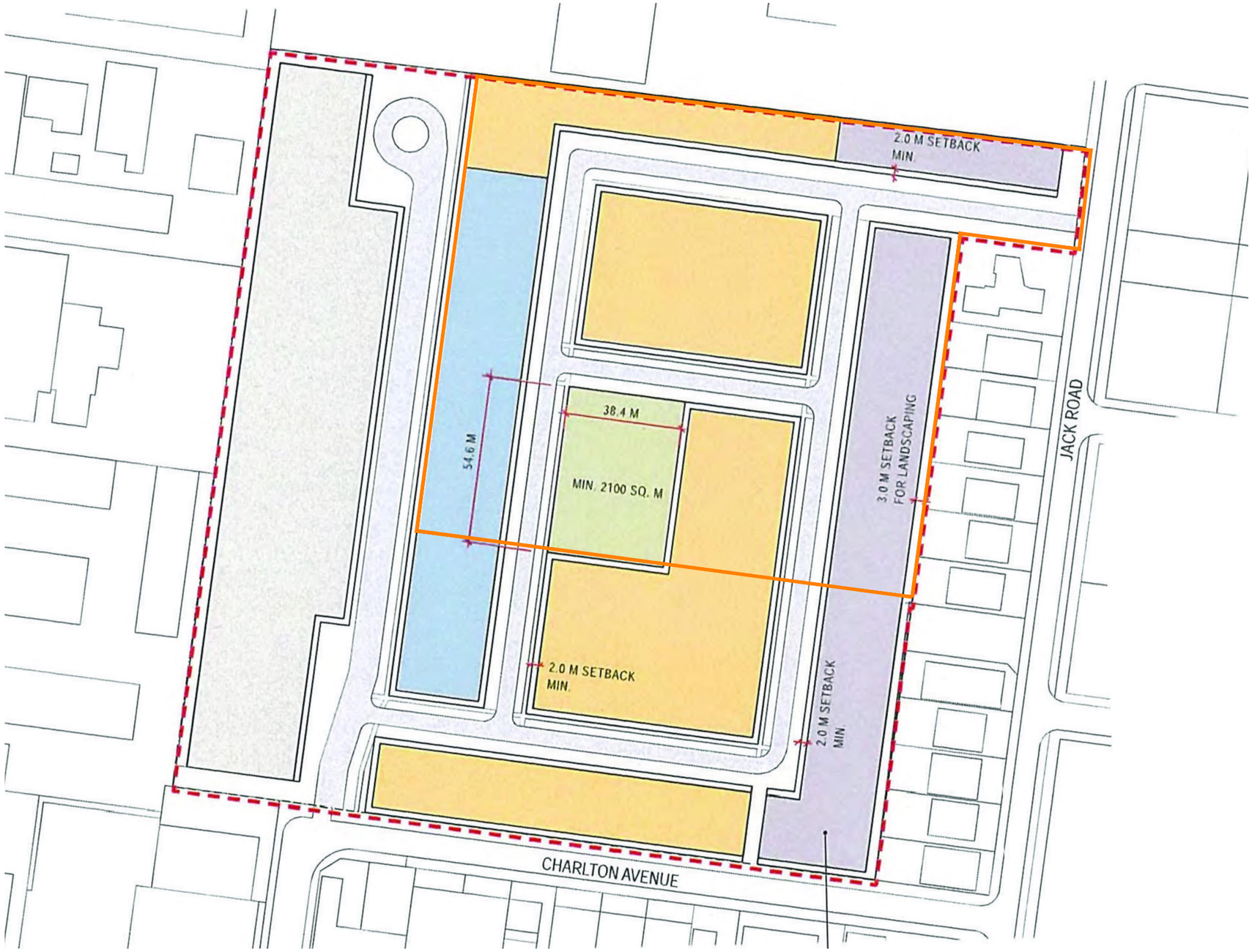
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Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **Head & Humphreys, 7033-00-ENV-0201**	

ENVIRONMENTAL AUDIT BOUNDARY

EXTENT OF SITE AREA, OMITTING THE ELECTRICAL SUBSTATION

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 1A - Area A



peraco

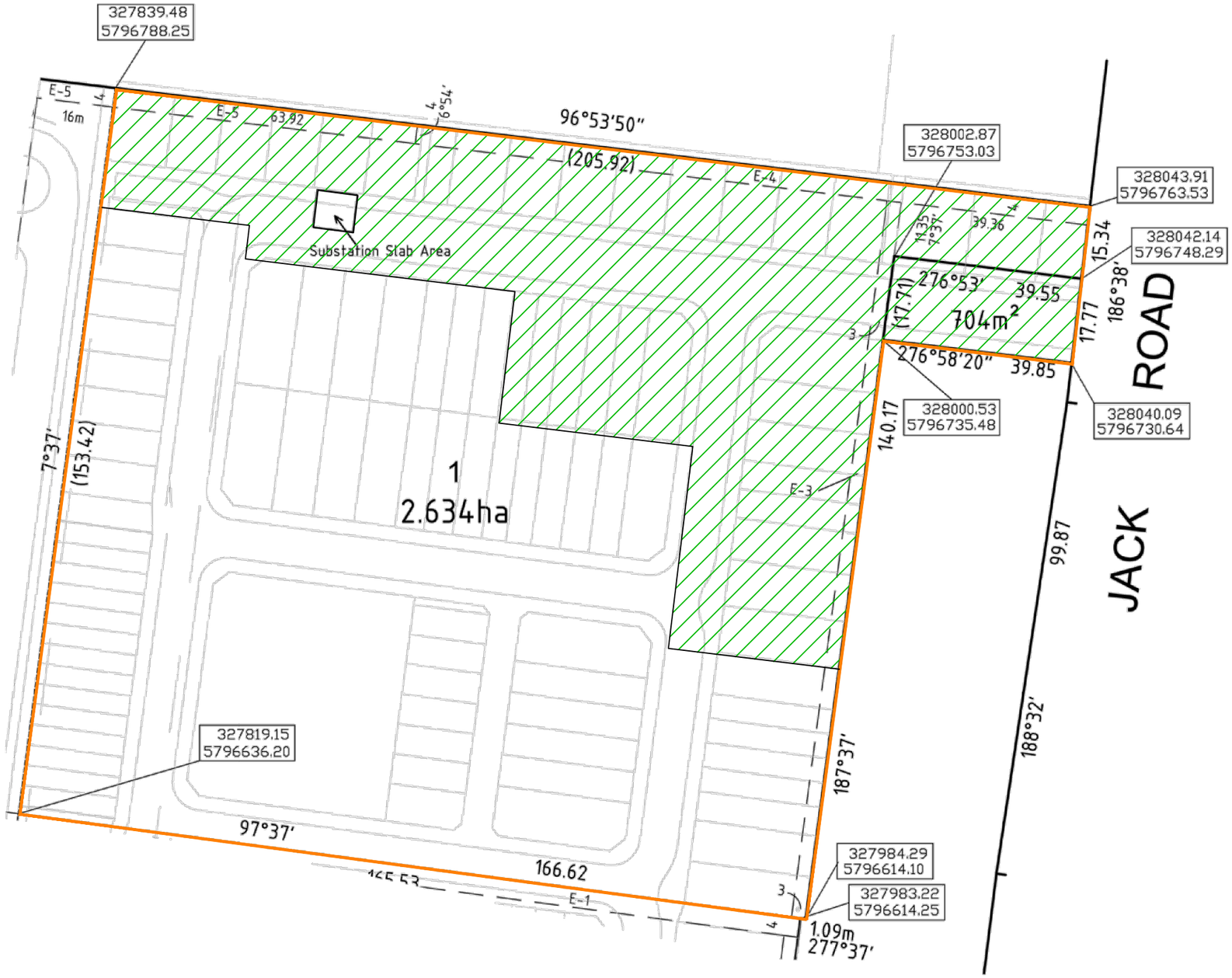
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Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **Rothe Lowman, Jack Road Development Plan - 16**	

ENVIRONMENTAL AUDIT BOUNDARY
OPEN SPACE
RESIDENTIAL TOWNHOUSE
RESIDENTIAL TOWNHOUSE
MIXED USE
OFFICE / COMMERCIAL / INDUSTRIAL / WAREHOUSE

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 2A - Proposed Development Plan



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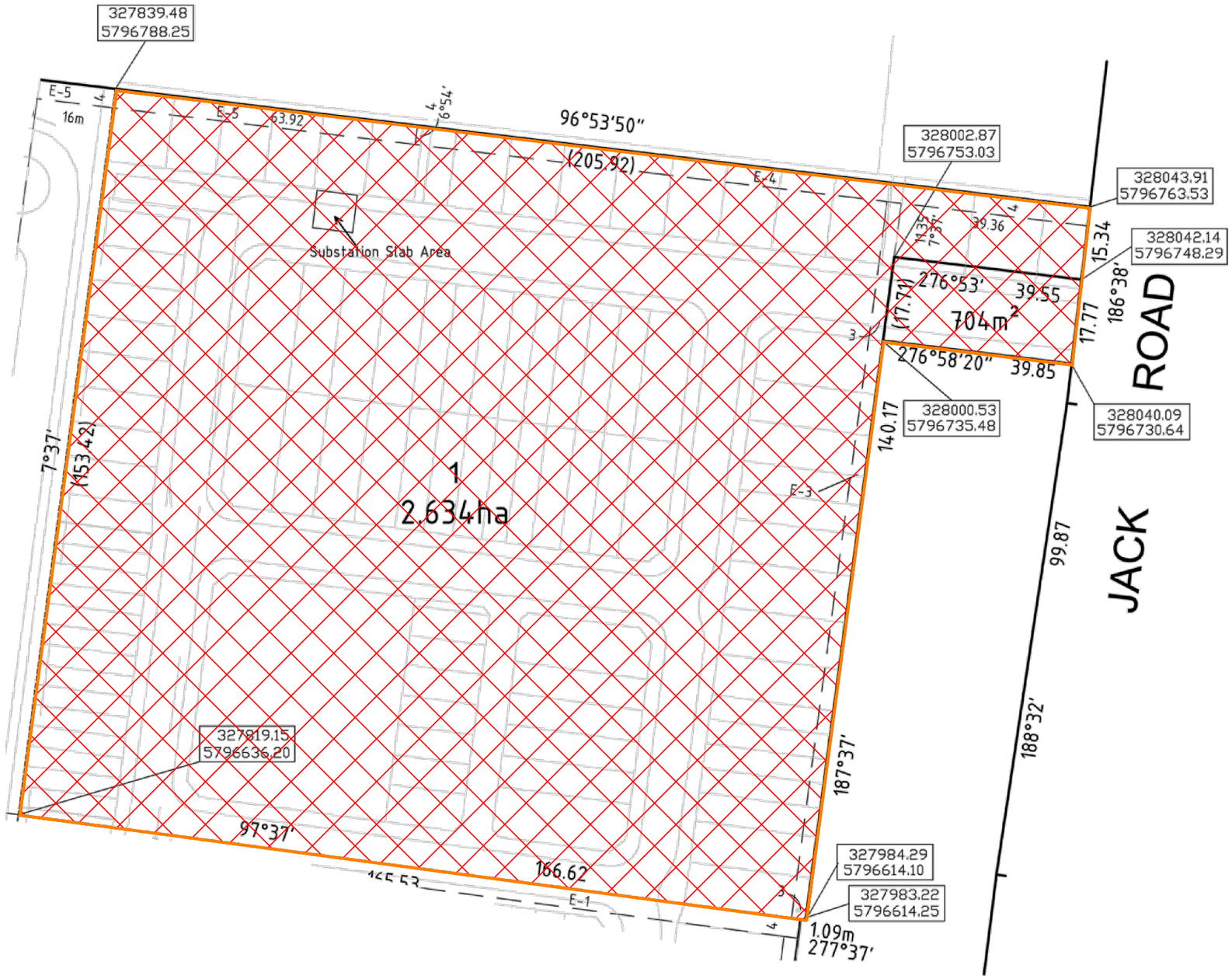
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Drawing Number: **J8427-4A**	
Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **Head & Humphreys, 7033-00-ENV-0201**	

ENVIRONMENTAL AUDIT BOUNDARY

EXTENT OF PERCHED WATER CMP, MARKER LAYER AND VAPOUR MITIGATION SYSTEM (AS OUTLINED IN ASSOCIATED STATEMENT CONDITIONS)

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 3A - Extent of Perched Water CMP, Marker Layer and Vapour Mitigation System



peraco

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Drawing Number: **J8427-4A**	
Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **Head & Humphreys, 7033-00-ENV-0201**	

ENVIRONMENTAL AUDIT BOUNDARY

GQRUZ EXTENT

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 4A - Recommended GQRUZ

Peraco Environmental Services Pty Ltd
ABN 34 144 487 356
24 Redesdale Road
Ivanhoe Vic 3079
Tel: 1300 892 446
www.peraco.com.au

GROUNDWATER QUALITY MANAGEMENT PLAN
33 JACK ROAD, CHELTENHAM, VICTORIA

Prepared for:

Jack Road Investments Pty Ltd
Door 14 North Drive, 236-262 East Boundary Road
East Bentleigh VIC 3165

Report Date: 2 October 2014
Project Ref: J8427.R03

Written/Submitted by:



Peter Mirkov
Environmental Auditor
(Appointed Pursuant to the Environment Protection Act 1970)

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Figure 1: Site Location Plan

Figure 2: Plan of Groundwater Monitoring Bores to be Retained and Monitored

Figure 3: Groundwater Contour Map – Perched Aquifer (August 2014)

Figure 4: Groundwater Contour Map – Deep Aquifer (August 2014)

Figure 5: Groundwater Impacts, Perched Aquifer VCHs

Figure 6: Groundwater Impacts, Perched Aquifer TPHs

Figure 7: Perched Water Zone

Figure 8: Recommended Groundwater Quality Restricted Use Zone

Abbreviations

AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
C6-C36	Hydrocarbon chainlength fraction
Bgs	below ground surface
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
COC	Chain of Custody
DO	Dissolved Oxygen
EC	Electrical Conductivity
Eh	Oxidation/Reduction Potential
ESA	Environmental Site Assessment
GME	Groundwater Monitoring Event
LOR	Limit of Reporting
µg/L	micrograms per litre
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
MW	Monitoring Well
NATA	National Association of Testing Authorities
NEHF	National Environmental Health Forum
NEPM	National Environment Protection Measure
PSH	Phase Separated Hydrocarbon
QA	Quality Assurance
QC	Quality Control
RL	Reduced Level
SWL	Static Water Level
TDS	Total Dissolved Solid
TOC	Top of Casing
TPH	Total Petroleum Hydrocarbon
UST	Underground Storage Tank
VCH	Volatile Chlorinated Hydrocarbons
VIC EPA	Environment Protection Authority of Victoria

1 Introduction

1.1 Background

This Groundwater Quality Management Plan (GQMP) has been prepared as part of the environmental audit for the site located at 33 Jack Road, Cheltenham, Victoria, conducted by Peter Mirkov. Compliance with this GQMP forms part of the conditions in the Statement of Environmental Audit issued for the site, refer to report ref. J8427-R02.

The location of the site is indicated on Figure 1. Groundwater bore locations, groundwater contours and plume maps are indicated on Figures 2 to 7. The recommended Groundwater Quality Restricted Use Zone is indicated on Figure 8.

1.2 Objective

The purpose of the GQMP is to outline ongoing groundwater management requirements for the site located at 33 Jack Road, Cheltenham. The specific requirement is to provide for a means to assessing the possible expansion of a contaminated perched groundwater aquifer that was identified along the northern part of the development site. Contamination of perched groundwater represented a potential indoor vapour air risk to future residents at the site, and as such the audit was completed with a Statement condition requiring the design and installation of a vapour barrier in areas where contaminated perched groundwater may be present. The objective of the GQMP is to monitor perched groundwater and to provide assurance that contaminated perched groundwater will not migrate into areas where vapour barrier systems have not been specified.

The areas encompassing the vapour barrier have also had Statement conditions placed requiring the installation of a marker layer and Contaminant Management Plan (CMP) to provide protection from possible dermal contact exposure to residents or workers. This GQMP will also provide assurance that these Statement conditions are also met.

It should be noted that this report is provided as a summary only and does not attempt to reproduce large quantities of data and information contained in the previous site assessment reports and the environmental audit report for the site. For a detailed description of all site conditions and environmental issues that created a need for this GQMP reference should be made to the environment audit report (Peraco Report J8427-R02).

The requirements of this GQMP must be overseen, as detailed in the GQMP, by an Environmental Auditor appointed pursuant to *the Environment Protection Act 1970.*

2 Site Description

General site information is presented in Table 2.1.

Table 2.1: Site Identification

Site Address:	33 Jack Road, Cheltenham, Victoria 3192
Title Details	Lot 1 on Proposed Plan of Subdivision PS713815C Lot 2 on Plan of Subdivision 138747 (Volume 09479 Folio 505)
Total Site Area:	Approximately 27,045 m^2
Current Zoning:	Mixed Use Zone (MUZ) and Commercial 1 Zone (C1Z) City of Bayside Planning Scheme

Current Site Use:	Vacant
Proposed Site Use:	Medium to high density residential and recreational/open space. The site is being developed as one residential development with the site immediately to the south (9-41 Charlton Ave, Cheltenham). The proposed development layout is provided on Figures 1A (attached to the Statement of Environmental Audit).

3 Geology and Hydrogeology

3.1 Geology – Regional/Local

The 1:63,360 Geological Survery of Victoria Ringwood map sheet (No.849) indicates that the site is underlain by Quaternary age sand dune deposits and swamp deposits comprising sands, silts and clays. The sediments are deposited in north-west/south-east aligned bands with the sand dune deposits forming topographic highs and swamp deposits forming topographic lows. The Quaternary sand deposits are generally up to 3m thick and contain groundwater, forming the shallow perched aquifer beneath the site. This shallow aquifer is perched on the underlying geology of the Brighton Group and is ephemeral with water levels fluctuating significantly over the year as they are largely dependent on rainfall recharge. Groundwater is expected at a depth of approximately 0.5 to 2m below ground level.

Beneath the Quaternary age sands are the Tertiary age Brighton Group Sands comprising sand, clayey sand, sandy clay and minor gravel. The Brighton Group sands are approximately 30m thick in the vicinity of the site and form the underlying Brighton Group Aquifer, where groundwater is expected at a depth of approximately 10m below ground level. The aquifer is fine grained and of low to moderate permeability with higher permeability layers of coarse sand and fine gravel.

Site specific geology encountered during drilling and excavation works conducted at the site is summarised in Table 3.1.

Table 3.1: Site Specific Geology

Depth interval (mbgs)	Soil lithology
0.0 – 1.0	**FILL:** Comprising fine to coarse grained sand and gravel, poorly sorted silt, gravel, sand and clay with crushed rock at some locations, generally extending to a depth of approximately 1.0m. The fill material was present at greater thickness at locations in the south eastern portion of the site and was encountered at depths up to 1.4m.
0.5 – 1.5	**SAND:** Fine grained, uniform, grey to brown, moist, dense, containing some fine to medium grained rounded gravels (inferred ironstone). At most locations, this sand extended from below the fill material to a maximum depth of 2.4m. At a number of locations, sand was not encountered, with fill material overlying natural sandy clay.
1.0 – 11.0	**SANDY CLAY/SILTY CLAY:** Low plasticity, medium grained sand, mottled red/grey/orange, moist, stiff, sand content decreasing with depth.
8.0 – 12.0	**CLAYEY SAND:** Fine to coarse grained, poorly graded, medium plasticity clay, mottled grey/brown.orange, some medium grained rounded gravel (inferred ironstone).

3.2 Hydrogeology – Regional/Local

The site is located in the East Port Phillip Bay groundwater catchment and groundwater beneath the site may be encountered in the shallow Quaternary sand sediments aquifer or the deeper Brighton Group aquifer.

Groundwater quality in the shallow aquifer is highly variable and dependent on the rate of local recharge, and total dissolved solids (TDS) is expected to be in the range 100 mg/L to 3,000 mg/L.

Based on the *Victorian Groundwater Beneficial Use Map of South Western Victoria Water Table Aquifers*, LRM determined that groundwater beneath the site was likely to be classified as Segment A1 (TDS up to 500 mg/L) as defined by the State Environmental Protection Policy (SEPP) *Groundwaters of Victoria*.

The closest natural surface water body to the site is Port Phillip Bay located approximately 2.7km west of the site. Groundwater flow is considered likely to flow west or south west towards Port Phillip Bay.

A review of Visualising Victoria's Groundwater database (http://vvg.org.au/) undertaken in August 2014 identified 321 registered groundwater wells within 2 km of the site. Eighty-three registered groundwater wells were identified within 500 m of the site. Six of these bores were registered for observation or investigation use with total depths between 10 and 15m and screened lithology being sand. The closest registered bores were located immediately north and immediately south of the site at the neighbouring properties (both registered as observation bores). The two closest extraction bores were irrigation bores located 300m north west (cross gradient) of the site and 400m south (down gradient) of the site and were drilled to depths of 40m and 36m respectively.

Groundwater monitoring wells were installed at the site to investigate both the perched Quaternary aquifer (the 'perched aquifer') and the Brighton Group aquifer (the 'deep aquifer') as part of the Audit. The audit report provides details on both aquifers, this GQMP is primarily concerned with the shallow perched groundwater aquifer.

Perched Quaternary Aquifer

At the time of the LRM works the perched aquifer was observed to extend across the north and north-eastern portion of the site. A total of 17 wells were installed in the perched aquifer at the site. Five of these wells; SW4 in the north-east corner, SW3 in the north, and SW11, SW12 and SW14 in the centre of the site, have consistently been dry.

Groundwater within this aquifer is considered localised, ephemeral and discontinuous and as such is not considered to represent a significant groundwater source for extractive use.

Standing water levels in the perched aquifer, as measured during the most recent GME in August 2014, ranged between 0.52 m below ground level (mbgl) at SW13 and 1.71mbgl at SW10.

Laboratory TDS concentrations in the range 200 – 3,300mg/L were reported. Reported TDS is consistent with the reported range of perched water within the region.

Where shallow groundwater was encountered across the site, the flow direction appeared generally to be in a southerly direction. Some mounding was observed at MW9AR, however this was considered to be associated with artificial recharge within the backfill material at the former tank pit.

It is noted that the groundwater SWL was above or at the screened interval in wells MW9A, MW9AR, SW1, SW6, SW8 and SW15. Given that the main contaminant of potential concern at the site was volatile chlorinated hydrocarbons, this was not considered to be of concern. The exception was elevated concentrations of TRH >C_{10} in wells SW8 and SW15, which were not indicative of the presence of light non-aqueous phase liquid and as such this was not considered to be of concern.

A summary of the site specific hydrogeology is provided in Table 3.2.

Table 3.2: Site Specific Hydrogeology

Item	Description
Groundwater Gradient	The hydraulic gradient in the perched aquifer between MW9AR and SW9 is 0.0065 (using groundwater levels recorded in July and August 2014).
Hydraulic Conductivity	The hydraulic conductivity of the aquifer is reported to be moderate to low (a representative value of 0.4m/day is given by Leonard, 1992). Hydraulic conductivity testing (rising head tests) was undertaken on three shallow aquifer wells and three deeper aquifer wells. The test data were analysed by Coffey via two solutions appropriate for an unconfined aquifer: Hvorslev (1951) and Bouwer and Rice (1976). Average hydraulic conductivity of the perched aquifer was reported to be 0.45 – 0.7 m/day
Porosity	Porosity of the perched aquifer was assumed to be 26% based on the analysis of sample SVB01 (1.0 – 2.0m).
Seepage Velocity	The estimated seepage velocity in the perched aquifer (based on the hydraulic gradient on 0.0065 and assumed porosity of 26%) is estimated to range from 4 m/year to 7 m/year.

4 Environmental Management at the Site

4.1 Environmental Issues at the Site

Concentrations of VCH and TPH are present in the shallow Quaternary aquifer which currently preclude the relevant extractive beneficial uses of *'Potable Water Supply', 'Agriculture, Parks and Gardens', 'Stock Watering', 'Industrial Use'* and/or *'Primary Contact Recreation'*.

An assessment of potential risk to human health was conducted for the site. The results of the health risk assessment identified a potential risk to indoor air for future residential occupiers at the site, as such a Statement condition required the incorporation of a vapour barrier in areas where contaminated perched water was present. The contaminated perched groundwater also represented an unacceptable dermal contact and / or vapour risk to subsurface workers.

To assure that no future risk is posed to receptors (residents and workers) by way of perched groundwater unexpectedly migrating to areas where no management conditions have been specified (vapour barriers, marker layers and contaminant management plans) this GQMP has specified that the groundwater needs to be monitored for a period of time to ensure that conditions into the future remain as predicted in the audit report, ie remain stable or recede as predicted in the CUTEP report.

4.2 Regulatory Requirements

The regulations, legislation and policies that are most applicable to the management of groundwater at the site are considered to be:

- Environment Protection Act (1970);
- State Environment Protection Policy (Waters of Victoria);

- VICEPA, (1997), "State Environment Protection Policy (Groundwaters of Victoria)", No S160, 1997 as amended on 19 March 2002 (Special Gazette G12).
- State Environment Protection Policy (Prevention and Management of Contaminated Land);
- EPA Victoria, Guidelines for the Issue of Certificates and Statements of Environmental Audit, No. 759.2, February 2014.

In relation to this site, the Auditor completed an Auditor determined Clean Up to the Extent Practicable (CUTEP) assessment, and determined that CUTEP had been achieved. The Auditor's CUTEP determination included a recommendation that EPA designate the site as a Groundwater Quality Restricted Use Zone (GQRUZ) pursuant to Clause 19 of *State Environment Protection Policy* (Groundwaters of Victoria), as amended in March 2002.

The extent of the Auditor's recommended GQRUZ is shown on Figure 7.

5 Groundwater Quality Management Plan

5.1 Purpose and Scope of Plan

The objectives of the groundwater management plan are to:

- Provide a means to manage potential risk to residential occupiers of the site
- Monitor any changed perched groundwater conditions or patterns with respect to the presence of perched water across the site, to ensure contaminated perched water does not extend into areas of the site not managed as the 'perched water zone' (see Figure 7) and
- Identify when groundwater management may cease.

5.2 Life of Plan

The Groundwater Quality Management Plan (GQMP) shall come into effect on the issue of the Environmental Audit Report by the environmental auditor for the site.

Any change to the GQMP for the site should only occur with the agreement of an EPA appointed Environmental Auditor, Jack Road Investments Pty Ltd and EPA or by direction of EPA.

The GQMP may cease with the agreement of EPA.

5.3 Implementation of Groundwater Quality Management Plan

It is the responsibility of Jack Road Investments Pty Ltd to implement the GQMP. Jack Road Investments Pty Ltd may delegate some responsibilities for specific tasks to other parties. However, responsibility to ensure the plan is implemented remains with Jack Road Investments Pty Ltd. It is noted that Jack Road Investments Pty Ltd may delegate or transfer this responsibility to another party, however the Jack Road Investments Pty Ltd must notify EPA of the transfer. The tasks considered necessary to be undertaken as part of the GQMP and the parties responsible for those tasks are shown in Table 5.1 below. Unless stated, it is assumed that the responsibility lies with Jack Road Investments Pty Ltd.

Table 5.1 – GQMP Tasks and Responsibilities

Task	Party / Parties Responsible
Appointment of Environmental Auditor and Environmental Consultant	Jack Road Investments Pty Ltd
Implementation of the Groundwater Quality Management Plan	Jack Road Investments Pty Ltd
Periodic environmental monitoring by suitably trained personnel.	Must be delegated to Jack Road Investments Pty Ltd's environmental consultant
Evaluation of monitoring results against trigger levels	Must be delegated to Jack Road Investments Pty Ltd's environmental consultant
Notifying environmental Auditor of change in site condition, if movement of perched water occurs into areas not managed as the 'perched water zone', if groundwater monitoring trigger levels are exceeded or if conditions of Statement of Environmental Audit are contravened	May be delegated to Jack Road Investments Pty Ltd's environmental consultant
Preparation of groundwater monitoring event (GME) reports to be reviewed by Environmental Auditor	Must be prepared in consultation with Jack Road Investments Pty Ltd's environmental consultant
Review of GME reports.	Auditor appointed pursuant to the *Environment Protection Act 1970* to be appointed by Jack Road Investments Pty Ltd
Implementation of remedial measures, where such measures are determined to be necessary by the Environmental Auditor and EPA, in response to environmental deficiencies observed	Responsibility of Jack Road Investments Pty Ltd but may be delegated to a suitably qualified consultant or contractor. Must be conducted in consultation with EPA, the Environmental Auditor and Jack Road Investments Pty Ltd's environmental consultant.
Keeping records of groundwater analytical results	May be delegated in part to the environmental consultant. Jack Road Investments Pty Ltd must keep copies of documentation.

In the event of groundwater monitoring trigger levels being exceeded or the conditions of Statement of Environmental Audit being contravened, then the Environmental Consultant and the Environmental Auditor must notify Jack Road Investments Pty Ltd and EPA immediately.

5.4 Reporting

Where actions are taken under the GQMP, Jack Road Investments Pty Ltd or its representative must document the actions taken.

If these actions indicate a change in the condition of the site from that expected (i.e. groundwater concentrations in excess of trigger levels, the occurrence of water in a historically dry well or evidence of the movement of perched water into areas outside that of the designed 'perched water zone' as per Figure 7), then details of the actions and all data must be immediately reported to the Environmental Auditor. Groundwater monitoring results that do not exceed trigger levels shall be documented in the annual report.

Reports of activities undertaken as part of this GQMP should be prepared by Jack Road Investments Pty Ltd or its representative and reviewed by an EPA appointed Environmental Auditor following each groundwater monitoring event.

The reports should be presented in a factual format, with emphasis being placed on methods employed and data obtained.

The reports should include (where applicable);

- Context of Report;
- Groundwater Monitoring Data (sample collection details, groundwater levels, the observed presence or absence of perched water, trends over time, analytical results and QA/QC details);
- Scale Plans;
- Comments on the status of groundwater pollution and any action that may be required.

6 Groundwater Management

6.1 General

This groundwater management plan has been developed based on the requirements of State Environment Protection Policies and EPA Victoria Guidelines for Groundwater Sampling.

6.2 Controls on Groundwater Extraction and Use

Groundwater (shallow perched or deeper aquifer) shall not be extracted from the Auditor recommended GQRUZ for any purpose other than clean-up or monitoring. Where groundwater is extracted from the site it must be disposed of in accordance with EPA waste guidelines and any site Trade Waste Agreement in force. Testing of the quality of groundwater should be conducted before disposal.

6.3 Groundwater Monitoring

6.3.1 Monitoring Frequency and Procedures

A total of 17 shallow wells and 24 deep wells have been installed at the site. Given the nature of contamination remaining; 11 on-site shallow wells have been specified to be required to be maintained, monitored for the presence or absence of perched water and sampled and analysed where water is observed, as part of the requirements of the GQMP.

The location of bores to be retained and monitored is shown on Figure 2 attached.

Bores specified to be retained as part of the GQMP shall be managed so that they remain functional and protected from contamination via entry of foreign objects, etc. and lockable caps should be fitted. The following table indicates the bores that are to be maintained.

Table 6.1 – Groundwater Monitoring Bores to be Retained

Bore ID	Location	Purpose
MW9AR	Within the plume	Monitor plume attenuation / plume increase
SW4	On-site, outside the plume	Monitor possible plume expansion and movement of perched water
SW6	On-site, outside the plume	Monitor possible plume expansion
SW7	On-site, outside the plume	Monitor possible plume expansion
SW9	On-site, outside the plume	Monitor possible plume expansion
SW10	On-site, outside the plume	Monitor possible plume expansion
SW11	On-site, outside the plume	Monitor possible plume expansion and movement of perched water
SW12	On-site, outside the plume	Monitor possible plume expansion and movement of perched water
SW13	On-site, outside the plume	Monitor possible plume expansion
SW14	On-site, outside the plume	Monitor possible plume expansion and movement of perched water
SW15	On-site and within plume	Monitor plume attenuation / plume increase

It is noted that during the most recent gauging event conducted in August 2014, wells SW4, SW11, SW12 and SW14 were dry. Groundwater was not observed in these wells at all during the Audit. The purpose of monitoring dry wells is to confirm that perched water does not migrate into areas where perched water was not observed during the audit, thus ensuring that VHC and TPH impacted water does not migrate outside of the areas where the vapour barrier, CMP and marker layer have been specified. In the event that perched groundwater does migrate beyond the designated vapour barrier area, the groundwater must be sampled, analysed and reviewed in the context of trigger levels specified in this GQMP or by way of additional site specific risk assessment to ensure that such perched groundwater migration doesn't represent any unacceptable risks to indoor air environments or as dermal contact to residents/workers.

Samples are to be collected from the groundwater monitoring bores nominated above at least once every six months for a period of three years, starting from the issue of the environmental audit report, or otherwise directed by the auditor. Monitoring should occur at regular six monthly intervals, however due to potential seasonality of perched water movement, the scheduling of groundwater sampling events should take into consideration periods of extended rainfall, with an aim of scheduling GMEs immediately following these periods.

Due to the temporal nature of perched water, the frequency of monitoring should not be reduced to annually.

If any of the nominated bores are damaged or destroyed, then a new bore must be installed in a similar location with similar construction details. The location of replacement bores must be agreed by the appointed Auditor. If a bore is no longer considered necessary by the Auditor appointed to review the GQMP, the bore may be removed from further monitoring. Groundwater samples must be collected in accordance with the procedures given in EPA Victoria (2000) "Groundwater Sampling Guidelines" No. 669 (or any superseding document). Groundwater levels should be

recorded at the time of sampling and be related to the Australian Height Datum. Purge volumes and field parameters shall be recorded and presented in the report of GQMP activities.

6.3.2 Groundwater Analytical Plan

Dissolved oxygen concentrations, redox potential, temperature and electrical conductivity should be measured in the field. As a minimum, samples must be analysed for total petroleum hydrocarbons and chlorinated hydrocarbons. Laboratory reporting limits must be below the adopted groundwater investigation levels as presented in Table F2 of the Audit Report. Samples must be analysed by an analytical laboratory that has received NATA accreditation for the analyses conducted, and reported in a NATA-endorsed test report.

6.3.3 QC Procedures

Quality control and assurance procedures should be conducted in accordance with EPA Victoria (2000) "Groundwater Sampling Guidelines". Sampling, analysis and data reporting shall be to the standards approved by the auditor.

6.4 Monitoring Data Review

A review of monitoring data should be conducted by the environmental consultant immediately after each round of groundwater monitoring. Any changes in groundwater level beyond normal fluctuations should be checked and the implications of such changes considered by an environmental specialist. Groundwater analytical data should be compared with results of previous monitoring rounds and the trigger levels defined in this document.

Reports of activities undertaken as part of this GQMP should be prepared following each monitoring event by the site occupier or its representative and reviewed by an EPA appointed Environmental Auditor.

Where the presence of perched water is observed outside the designated 'perched water zone', the EPA appointed Environmental Auditor should be notified immediately.

Any groundwater concentrations in excess of trigger levels shall be immediately reported to the EPA appointed Environmental Auditor, who shall then in turn immediately notify the EPA of the trigger level exceedances. The contingency plan nominated for trigger level exceedances must be implemented at this time.

The Auditor shall prepare a report based on the review of all sampling events conducted for submission to the site occupier and EPA after a maximum of three years of monitoring. At this time, the Environmental Auditor must review the requirements of the GQMP and seek EPA advice regarding the potential to cease the GQMP. Cessation of the GQMP may only occur with EPA approval. It should be noted that an EPA appointed Environmental Auditor may apply to the EPA for cessation of the GQMP sooner than a three year period of monitoring, however after three years the Auditor must review the GQMP and consider the potential for its cessation.

6.4.1 Compliance Targets

Compliance targets relate to the criteria for protection of the beneficial uses of groundwater including 'Agriculture, Parks and Gardens', 'Stock Watering', 'Industrial Use' and 'Primary Contact Recreation'. Maintenance of Ecosystems criteria was also exceeded, however given the nearest surface water receptor is 2.7km west of the site and the presence of the perched water has be observed to be localised, predominately within the site boundaries, it is highly unlikely that contamination from this site would ever reach a receptor at such a distance.

6.4.2 Groundwater Trigger Levels

In assessing suitable trigger levels consideration is given to the possible impact to the beneficial uses of land (via groundwater contaminant vapours) as well as minimising the migration of the plume and subsequent impact to possible beneficial uses of groundwater at down-gradient locations.

In determining trigger levels the following has been considered:

- Levels must be within the criteria for risk to indoor air environments as assessed during the site specific risk assessment
- Overall the management of the contamination needs to also provide assurance that the plume will not spread beyond a reasonable distance (considering likely natural attenuation) from the original source (near MW9)

The trigger levels will therefore relate to (1) ensuring that there is no significant spread of the chlorinated hydrocarbon contamination beyond what has been identified as a source near well MW9AR and (2) ensuring that there is no migration of chlorinated hydrocarbons outside the currently designated vapour barrier protection zone such that a potential indoor air risk results in those areas that do not have a vapour barrier.

With respect to the second of these objectives, the derivation of risks associated with indoor air for multiple chlorinated hydrocarbons is an additive process and as such there is no single unique combination of chlorinated hydrocarbons that can be specified as single trigger levels. As such the results from each round of groundwater monitoring needs to be assessed against the developed site specific health risk assessment model (which has been peer reviewed by an EPA approved health risk expert). The exposure risk model is documented in the Coffey Environments Pty Ltd (September 2014), *On-site Health Risk Assessment Report*, and this model must be utilised when assessing the risk to indoor air from chlorinated hydrocarbons outside the designated vapour barrier area from any round of groundwater monitoring, alternatively the auditor may develop another site specific risk model to predict indoor air risks and such model can alternatively be utilised subject to the model being peer reviewed by the auditor's appointed risk assessment expert. Similarly any perched groundwater outside of the vapour barrier level that contains any petroleum hydrocarbons should also be assessed against the risk model for dermal contact risks combined with inhalation risks for residents, trench workers and construction workers (as per the Coffey Environments Pty Ltd (September 2014), *On-site Health Risk Assessment Report*).

If groundwater concentrations exceed risk/trigger levels in one monitoring round, then the well at which the elevated concentration was observed should be immediately re-sampled and analysed to confirm the validity of the result. If the re-sampled groundwater concentration also exceeds the trigger/risk level, then monitoring results should immediately be referred to an Environmental Auditor for review. The data from the other wells in the sampling set should also be considered when assessing any actions.

With respect to the second objective of the trigger levels it is recommended that the auditor reviews the concentrations of volatile chlorinated hydrocarbons and TRH in each well at each round and make an assessment of the trends in concentrations over time. If the trends remain stable or decreasing then no action would be required. If trends demonstrate increasing concentrations (but not representative of any risk to indoor air as discussed for the first objective) then the auditor should assess the likelihood that continued increasing trends would result in expansion of the plume such that expansion of the perched groundwater plume is likely to affect areas outside the vapour barrier then the auditor should implement risk mitigation strategies as described below, in consultation with the EPA.

6.5 Contingency Risk Assessment and Possible Remedial Action Plan

Results of groundwater monitoring that indicate current groundwater concentrations above the trigger levels or above levels that may result in exceedances of acceptable risk levels (as described in 6.4.3 above), should result in the implementation of a groundwater risk assessment.

The risk assessment should consider:

- The cause of the increased hydrocarbon concentrations (with particular attention to potential for off-site impacts entering the site – as this has been indicated as a likely pathway);
- The migration pathways associated with the plume;

- The likely future migration of the plume – the gathered data will provide information from which migration models can be calibrated;
- The likely future impact on beneficial uses (especially indoor air risks) and hence the possible need to consider remedial action;
- The potential risk of impact to possible receptors of the groundwater; and
- Reassessment of the practicability of remediation options given gathered data.

This risk assessment, in consultation with the Auditor or EPA, will determine the need for an active remediation of the plume.

7 Review of Groundwater Quality Management Plan

After a period of three years the GQMP data collected over the three year period shall be reviewed by the Jack Road Investments' environmental consultant and by an EPA appointed environmental Auditor. The review shall include an assessment of:

- the results of groundwater monitoring; and
- whether retention, augmentation, modification or cessation of the GQMP is recommended.

An EPA appointed environmental Auditor shall prepare a GQMP review report. This report should include:

- a summary of the actions implemented, as part of the GQMP, over the review period;
- a review of the QA/QC relating to the data obtained;
- comments on the environmental implications of groundwater monitoring; and
- recommendations regarding the ongoing implementation of the plan, including any recommendations regarding monitoring frequency or changes to site criteria or discontinuation of monitoring.

A copy of the GQMP review report shall be provided to Jack Road Investments Pty Ltd and EPA. Any revision of the GQMP shall be only made with the agreement of Jack Road Investments Pty Ltd, an EPA appointed environmental Auditor and EPA. The review and subsequent changes to the GQMP should be finalised within six months.

If the EPA agrees that monitoring can be discontinued then the conditions pertaining to groundwater monitoring on the Statement of Environmental Audit shall be deemed to have been met and thus shall lapse. Otherwise the GQMP will continue for a further 3 years.

8 Summary

The requirements outlined in this GQMP are:

1. Jack Road Investments Pty Ltd to appoint an EPA accredited environmental Auditor to oversee the GQMP.
2. Jack Road Investments Pty Ltd to appoint a suitably qualified environmental consultant to undertake the GQMP.
3. Environmental consultant is to conduct groundwater monitoring rounds as stipulated in this GQMP and prepare a report as described in Section 5.4.
4. Auditor is to conduct reviews of the GQMP results/reports.
5. The Auditor is to conduct a three-yearly review of the GQMP as set out in Section 6.4 and submit such a review to EPA.
6. Cessation of groundwater management and monitoring shall occur when an EPA auditor recommends such cessation and the EPA agree in writing.

9 References

Peraco (2014) CUTEP Report, 33 Jack Road, Cheltenham, Victoria (ref. J8427-R01).

Peraco (2014) Environmental Audit Report, 33 Jack Road, Cheltenham, Victoria (ref. J8427-R02).

VICEPA (2000) "Groundwater Sampling Guidelines" EPA Publication 669 dated April 2000.

Environment Protection Act (1970).

VICEPA, (2003), "State Environment Protection Policy (Waters of Victoria)", Publication 905, 2003

VICEPA, (1997), "State Environment Protection Policy (Groundwaters of Victoria)", No S160, 1997 as amended on 19 March 2002 (Special Gazette G12).

State Environment Protection Policy (Prevention and Management of Contaminated Land);

VICEPA (2014), Guidelines for the Issue of Certificates and Statements of Environmental Audit, No. 759.2, February 2014.

Figures

Groundwater Management Plan
33 Jack Road, Cheltenham, Victoria



peraco	N	Drawing Number: **J8427-3**	Client	**Jack Road Investments Pty Ltd**
		Revision: **A**	Site	33 Jack Road, Cheltenham
		Date: **11/09/14**	Title	Figure 1 - Site Location
		Author: **LZ** Checked by: **MB**		
		Data Source:		



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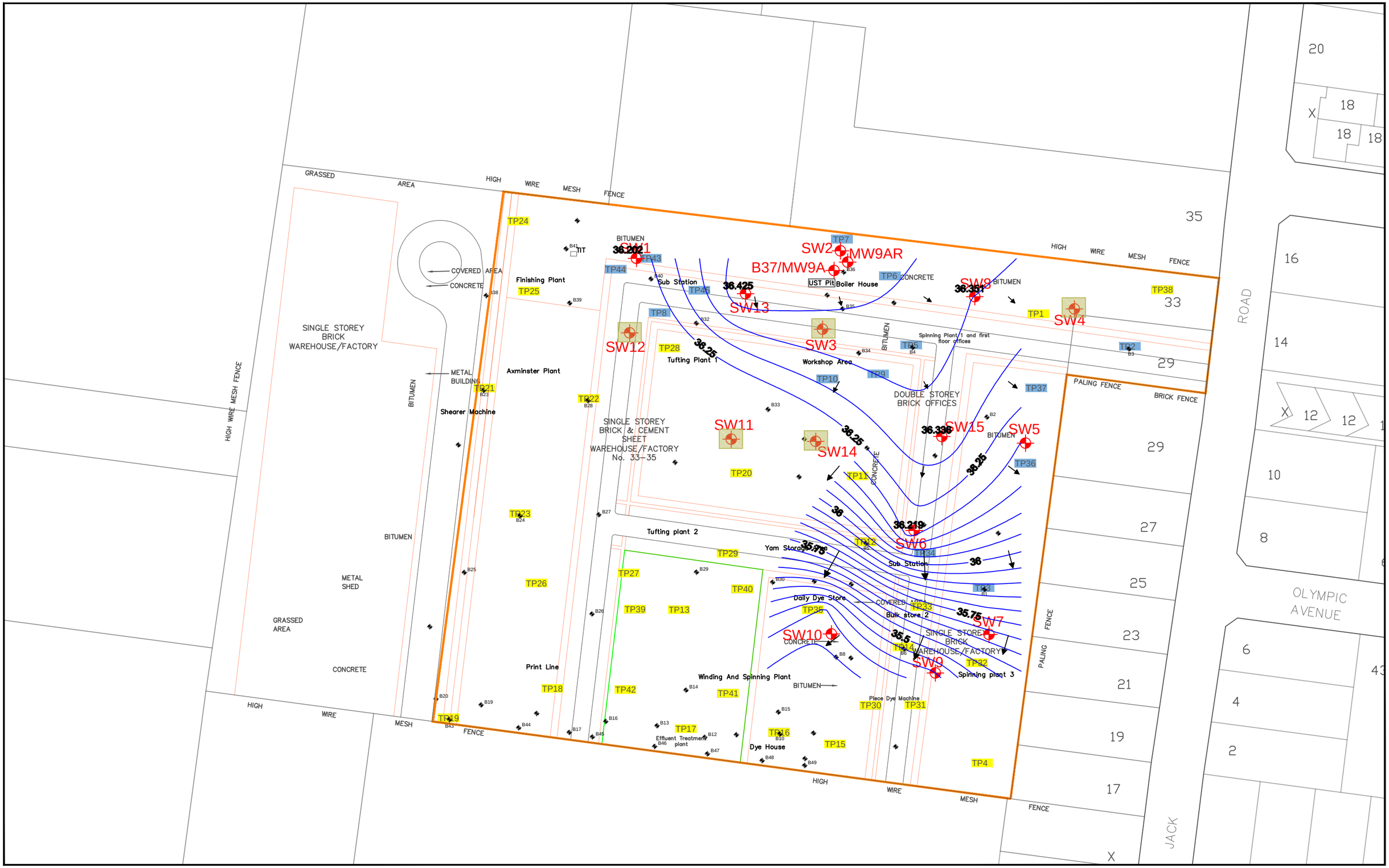
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Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **LRM Global, 10172, 25/08/14**	

ENVIRONMENTAL AUDIT BOUNDARY
PROPOSED SITE CONSTRUCTION
PROPOSED OPEN SURFACE AREA
SHALLOW GROUNDWATER WELL

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 2 - Groundwater Monitoring Wells to be retained and monitored



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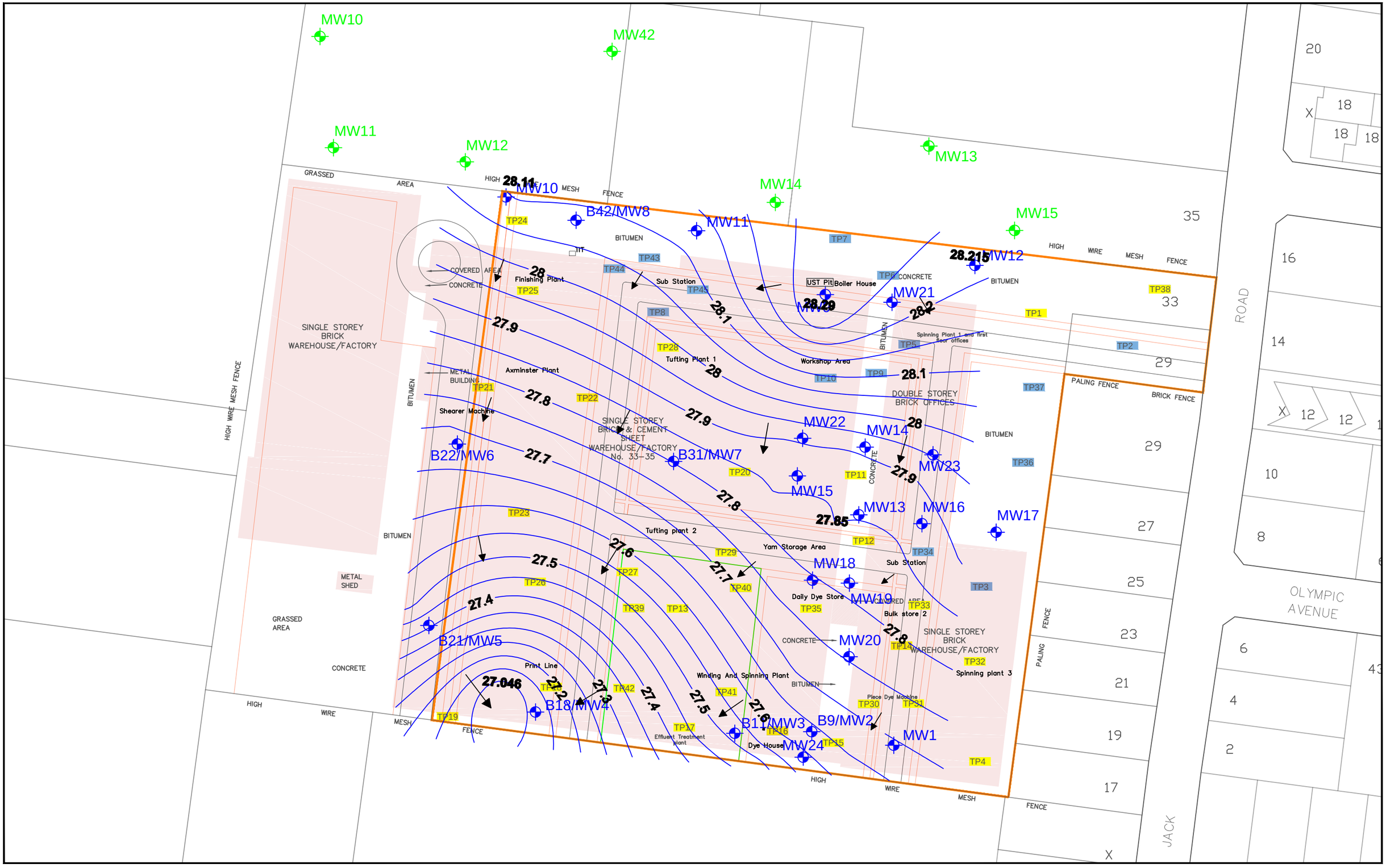
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Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **LRM Global, 10172, 25/08/14**	

TEST PIT LOCATION TP
TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP
GROUNDWATER CONTOURS (mAHD)
ENVIRONMENTAL AUDIT BOUNDARY
PROPOSED SITE CONSTRUCTION
PROPOSED OPEN SURFACE AREA
SHALLOW GROUNDWATER WELL
SOIL BORE
DIRECTION OF GROUNDWATER FLOW
DRY SHALLOW WELL

NOTE* GROUNDWATER CONTOUR DOES NOT INCLUDE DATA FROM MW9AR AND SW2

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 3 - Groundwater Contour Plan, Perched Aquifer (August 2014)



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Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
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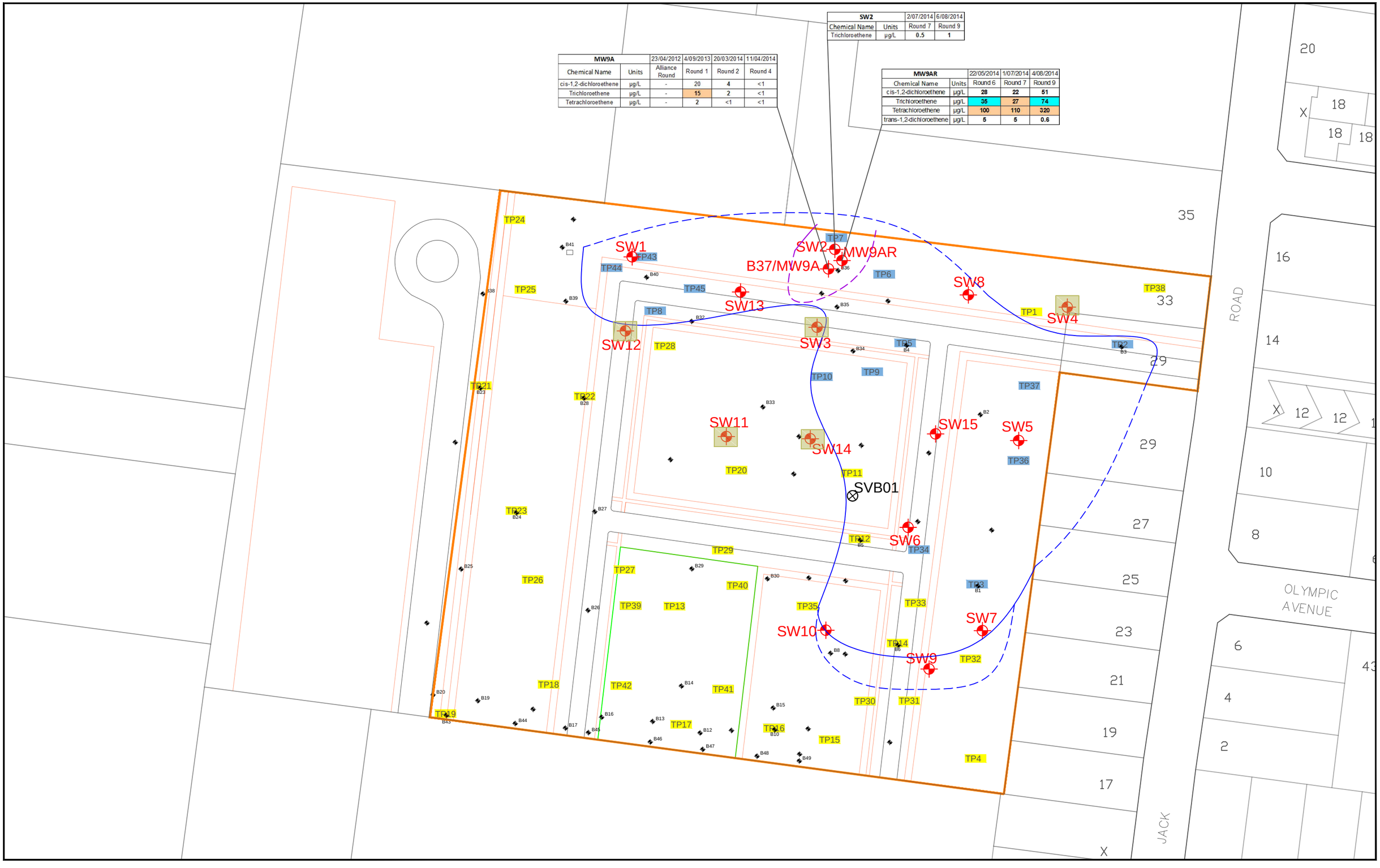
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TEST PIT LOCATION PERCHED WATER ENCOUNTERED — TP
GROUNDWATER CONTOURS (mAHD)
ENVIRONMENTAL AUDIT BOUNDARY
PROPOSED SITE CONSTRUCTION
PROPOSED OPEN SURFACE AREA
OFFSITE GROUNDWATER WELL
DEEP GROUNDWATER WELL
HISTORIC BUILDING OUTLINE
DIRECTION OF GROUNDWATER FLOW

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 4 - Groundwater Contour Plan, Deep Aquifer (August 2014)

MW9A		23/04/2012	4/09/2013	20/03/2014	11/04/2014
Chemical Name	Units	Alliance Round	Round 1	Round 2	Round 4
cis-1,2-dichloroethene	µg/L	-	20	4	<1
Trichloroethene	µg/L	-	15	2	<1
Tetrachloroethene	µg/L	-	2	<1	<1

SW2		2/07/2014	6/08/2014
Chemical Name	Units	Round 7	Round 9
Trichloroethene	µg/L	0.5	1

MW9AR		22/05/2014	1/07/2014	4/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
cis-1,2-dichloroethene	µg/L	28	22	51
Trichloroethene	µg/L	35	27	74
Tetrachloroethene	µg/L	100	110	320
trans-1,2-dichloroethene	µg/L	5	5	0.6



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Drawing Number: **J8427-3**

Revision: **A**

Date: **11/09/14**

Author: **LZ** | *Checked by:* **MB**

Data Source:
LRM Global, 10172, 25/08/14

TEST PIT LOCATION TP
TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP
TRICHLOROETHENE PLUME
INFERRED SHALLOW GROUNDWATER AQUIFER
ENVIRONMENTAL AUDIT BOUNDARY
PROPOSED SITE CONSTRUCTION
PROPOSED OPEN SURFACE AREA
SHALLOW GROUNDWATER WELL
SOIL BORE
DRY SHALLOW WELL

Exceeds				
Maintenance of Ecosystems	Acceptable Potable Water Supply	Agriculture, Parks and Gardens	Stock Watering	Primary Contact Recreation

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 5 - Groundwater Impacts, Perched Aquifer: VCHs

MW9A		23/04/2012	4/09/2013	20/03/2014	11/04/2014
Chemical Name	Units	Alliance Round	Round 1	Round 2	Round 4
C6-C10	µg/L	**30**	**20**	<20	<20

MW9AR		22/05/2014	1/07/2014	4/08/2014
Chemical Name	Units	Round 6	Round 7	Round 9
C6-C10	µg/L	**130**	**99**	**540**

SW8		2/07/2014	4/08/2014
Chemical Name	Units	Round 7	Round 9
C10-C16	µg/L	<50	**160**
C16-C34	µg/L	**300**	**1600**
C34-C40	µg/L	<100	**340**
C10 - C40 (Sum of total)	µg/L	**300**	**2100**

SW15		3/07/2014	6/08/2014
Chemical Name	Units	Round 7	Round 9
C16-C34	µg/L	**130**	**1500**
C34-C40	µg/L	<100	**320**
C10 - C40 (Sum of total)	µg/L	**130**	**1820**

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Drawing Number: **J8427-3**

Revision: **A**

Date: **11/09/14**

Author: **LZ** *Checked by:* **MB**

Data Source: **LRM Global, 10172, 25/08/14**

TEST PIT LOCATION TP

TEST PIT LOCATION PERCHED WATER ENCOUNTERED TP

TPH PLUME

INFERRED SHALLOW GROUNDWATER AQUIFER

ENVIRONMENTAL AUDIT BOUNDARY

PROPOSED SITE CONSTRUCTION

PROPOSED OPEN SURFACE AREA

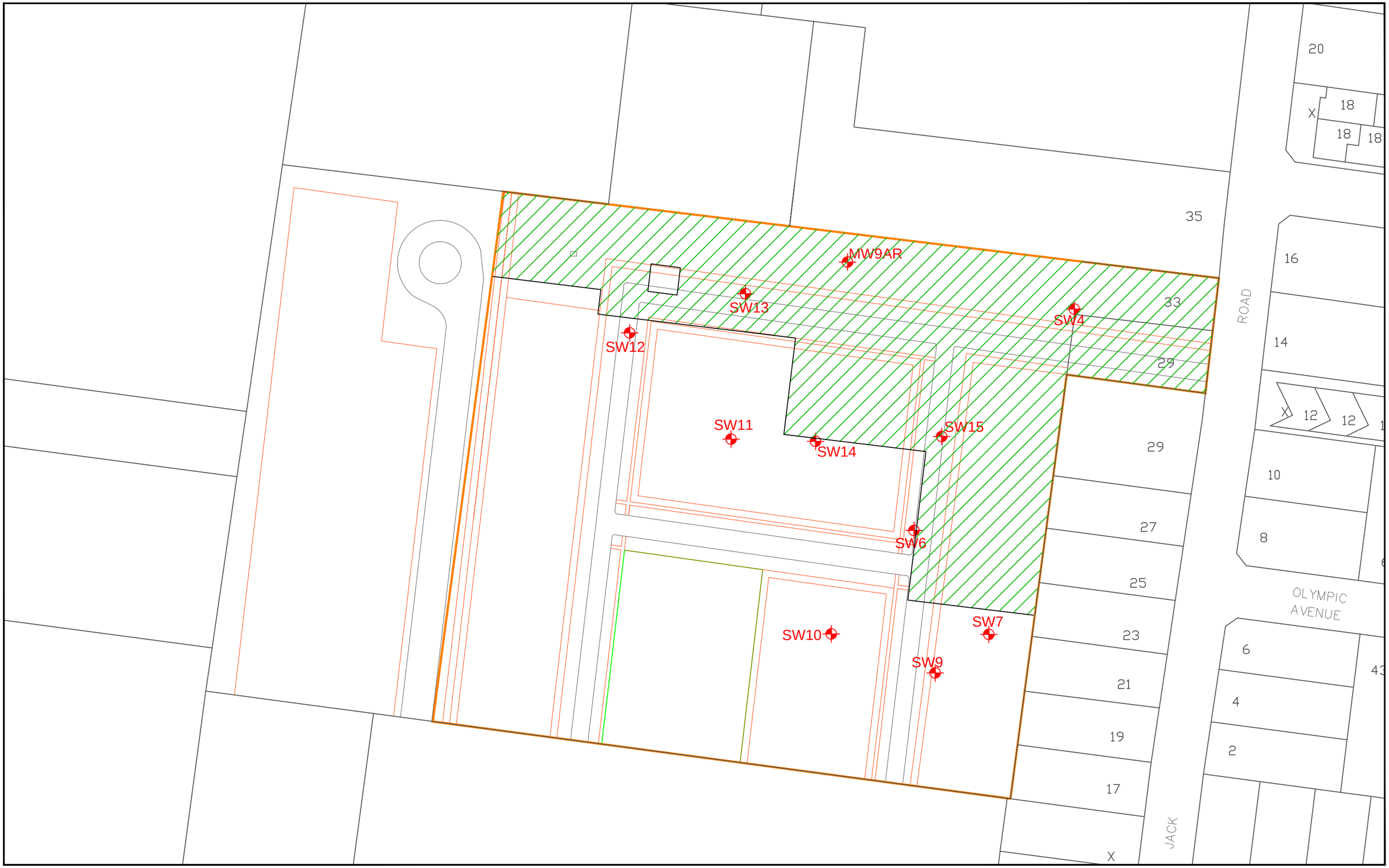
SHALLOW GROUNDWATER WELL

SOIL BORE

DRY SHALLOW WELL

Exceeds				
Maintenance of Ecosystems	Acceptable Potable Water Supply	Agriculture, Parks and Gardens	Stock Watering	Primary Contact Recreation

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 6 - Groundwater Impacts, Perched Aquifer: TRHs



peraco

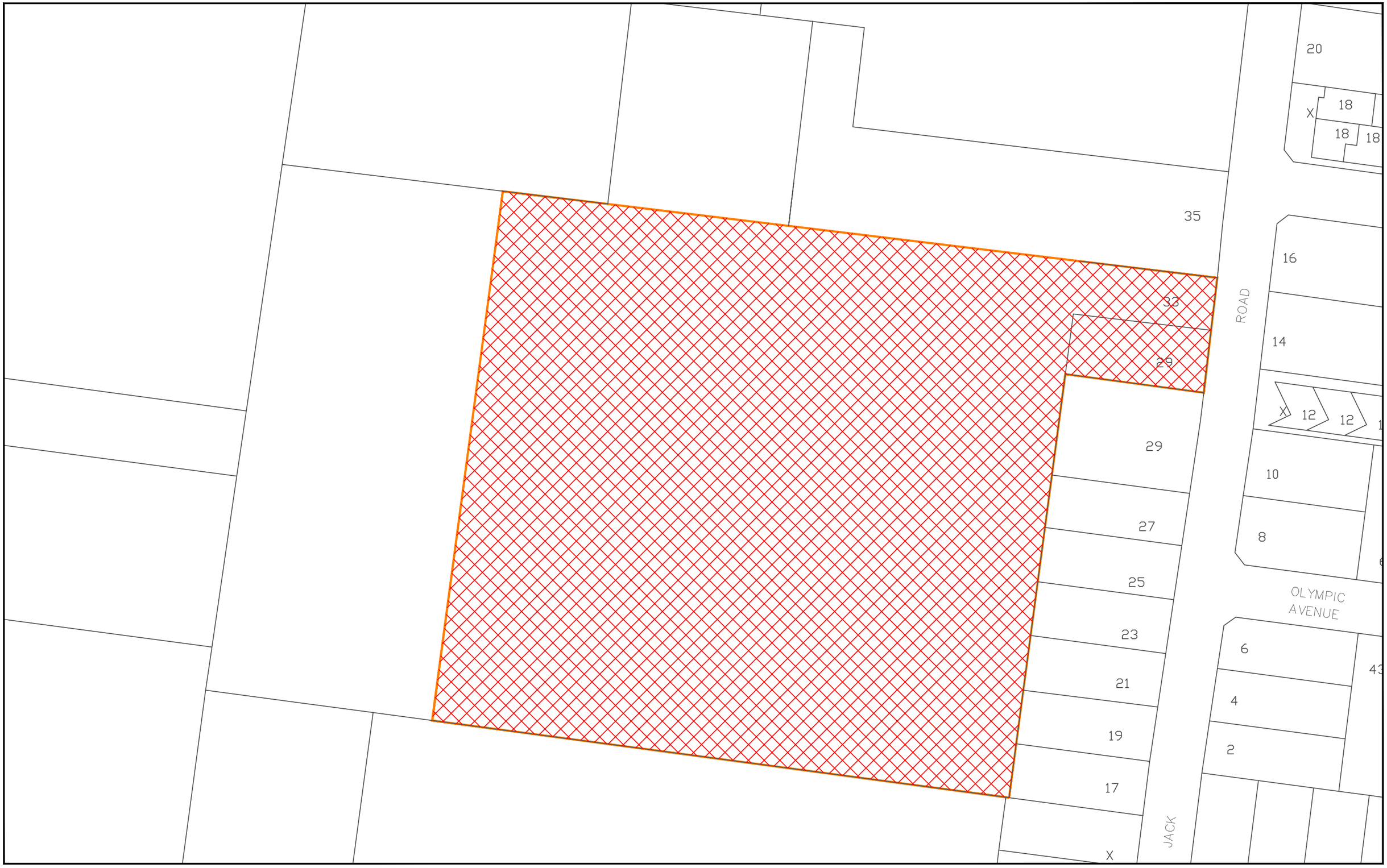
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Drawing Number: **J8427-3**	
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Data Source: **LRM Global, 10172, 25/08/14**	

- ENVIRONMENTAL AUDIT BOUNDARY
- PROPOSED SITE CONSTRUCTION
- PROPOSED OPEN SURFACE AREA
- SHALLOW GROUNDWATER WELL
- EXTENT OF PERCHED WATER CMP, MARKER LAYER AND VAPOUR MITIGATION SYSTEM (AS OUTLINED IN ASSOCIATED STATEMENT CONDITIONS)

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 7 - Perched Water Zone



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ENVIRONMENTAL AUDIT BOUNDARY

GQRUZ EXTENT

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 8 - Auditor Recommended Groundwater Quality Restricted Use Zone

Appendix B
Statement of Environmental Audit (Electrical Substation)

Environmental Audit Report
33 Jack Road, Cheltenham, Victoria, 3192

ENVIRONMENT PROTECTION ACT 1970

STATEMENT OF ENVIRONMENTAL AUDIT

I, Peter Mirkov of Peraco Environmental Services Pty Ltd, a person appointed by the Environment Protection Authority ('the Authority') under the *Environment Protection Act* 1970 ('the Act') as an environmental auditor for the purposes of the Act, having

1. been requested by Mr Peter Gillon of Jack Road Investments Pty Ltd to issue a certificate of environmental audit in relation to the Site located at 33 Jack Road, Cheltenham, Victoria, 3192; defined as Lot 1 on proposed Plan of Subdivision PS713815C and Lot 2 on Plan of Subdivision 138747 (Volume 09479 Folio 505), this Statement covers only the Electrical Substation located within the Site (Figure 1B) ('the Site'), owned/occupied by Jack Road Investments Pty Ltd;

2. had regard to, among other things,
   I. guidelines issued by the Authority for the purposes of Part IXD of the Act,
   II. the beneficial uses that may be made of the Site
   III. relevant State environment protection policies/industrial waste management policies, namely

   SEPP Groundwaters of Victoria

   SEPP Waters of Victoria

   SEPP Ambient Air Quality & Air Quality Management

   SEPP Prevention and Management of Contamination of Land

   IWRG Industrial Waste Resource Guidelines

   in making a total assessment of the nature and extent of any harm or detriment caused to, or the risk of any possible harm or detriment which may be caused to, any beneficial use made of the Site by any industrial processes or activity, waste or substance (including any chemical substance), and
3. completed an environmental audit report in accordance with section 53X of the Act, a copy of which has been sent to the Authority and the relevant planning and responsible authority.

HEREBY STATE that I am of the opinion that

The Site is not suitable for any beneficial uses. The substation area must be developed as part of the future roadway easement as shown on the attached Figure 1B

subject to the following conditions attached thereto:

A. The electrical substation area located in the north-east portion of the development [as defined by the attached registered survey - Figure 1B] is not considered suitable for any beneficial use. This electrical substation area may become suitable for sensitive (medium to high density), recreational / open space, commercial or industrial land uses (in accordance with the proposed land uses for the remainder of the Site) after assessment of soil conditions and acceptance by an environmental auditor appointed under Part IXD

of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the development authority.

B. Groundwater at the Site is polluted. Groundwater must not be used for any beneficial use without prior testing and review of results by an EPA appointed environmental auditor, appointed under Part IXD of the Environment Protection Act 1970, to confirm its suitability for that use. It may be extracted for the purpose of environmental monitoring or remediation.

The condition of the Site is detrimental or potentially detrimental to any (one or more) beneficial uses of the Site. Accordingly, I have not issued a certificate of environmental audit for the Site in its current condition, the reasons for which are presented in the environmental audit report. The terms and conditions that need to be complied with before a certificate of environmental audit may be issued are set out as follows:

i). Clean-up of polluted groundwater such that all beneficial uses of groundwater are restored.

ii). The status of soil beneath the electrical substation is demonstrated to be suitable for the proposed land use.

Other related information

1. Two separate Statements of Environmental Audit have been issued for the proposed development which includes this Site. This Statement which covers an existing electrical substation and the second Statement covers the majority of the designed audit boundary [refer to Figure 1B]. The soil beneath the substation could not be safely accessed during the Environmental Audit covering the majority of the designed audit boundary and as such the electrical substation portion of the Site [as identified in Figure 1B] has been issued a separate Statement.
2. This electrical substation area may become suitable for sensitive (medium to high density), recreational / open space, commercial or industrial land uses (in accordance with the proposed land uses for the remainder of the Site) after assessment of soil conditions and acceptance by an environmental auditor appointed under Part IXD of the Environment Protection Act 1970, and this acceptance advised in writing to EPA and the development authority. Where the electrical substation is assessed as being suitable for the proposed Site use, an addendum to this Statement of Environmental Audit should be issued by an EPA appointed environmental auditor, appointed under Part IXD of the Environment Protection Act 1970.
3. It is expected that upon the removal and subsequent assessment of the electrical substation and issue of the addendum to this Statement of Environmental Audit, the addendum will consider the inclusion of Statement Conditions that may be necessary with respect to conditions found beneath the substation.
4. The Auditor has determined that
    a. Groundwater has been cleaned up to the extent practicable; and
    b. The Auditor has recommended that the Site is designated as a Groundwater Quality Restricted Use Zone (GQRUZ). The extent of the proposed GQRUZ is shown on Figure 2B appended to this SoEA
5. In accordance with Clause 19(3) of the SEPP (GoV) the EPA may require periodic reassessment of the practicability of groundwater clean-up.
6. The extractive beneficial uses ‘Potable Water Supply’, ‘Agriculture, Parks and Gardens’, ‘Stock Watering’, ‘Primary Contact Recreation’ and ‘Industrial Use’ are precluded by one or more of TRH C6-C10, TRH >C10-C40, trichloroethene, tetrachloroethene in the perched groundwater aquifer (at approximate depths of 0.5-2mbgs).

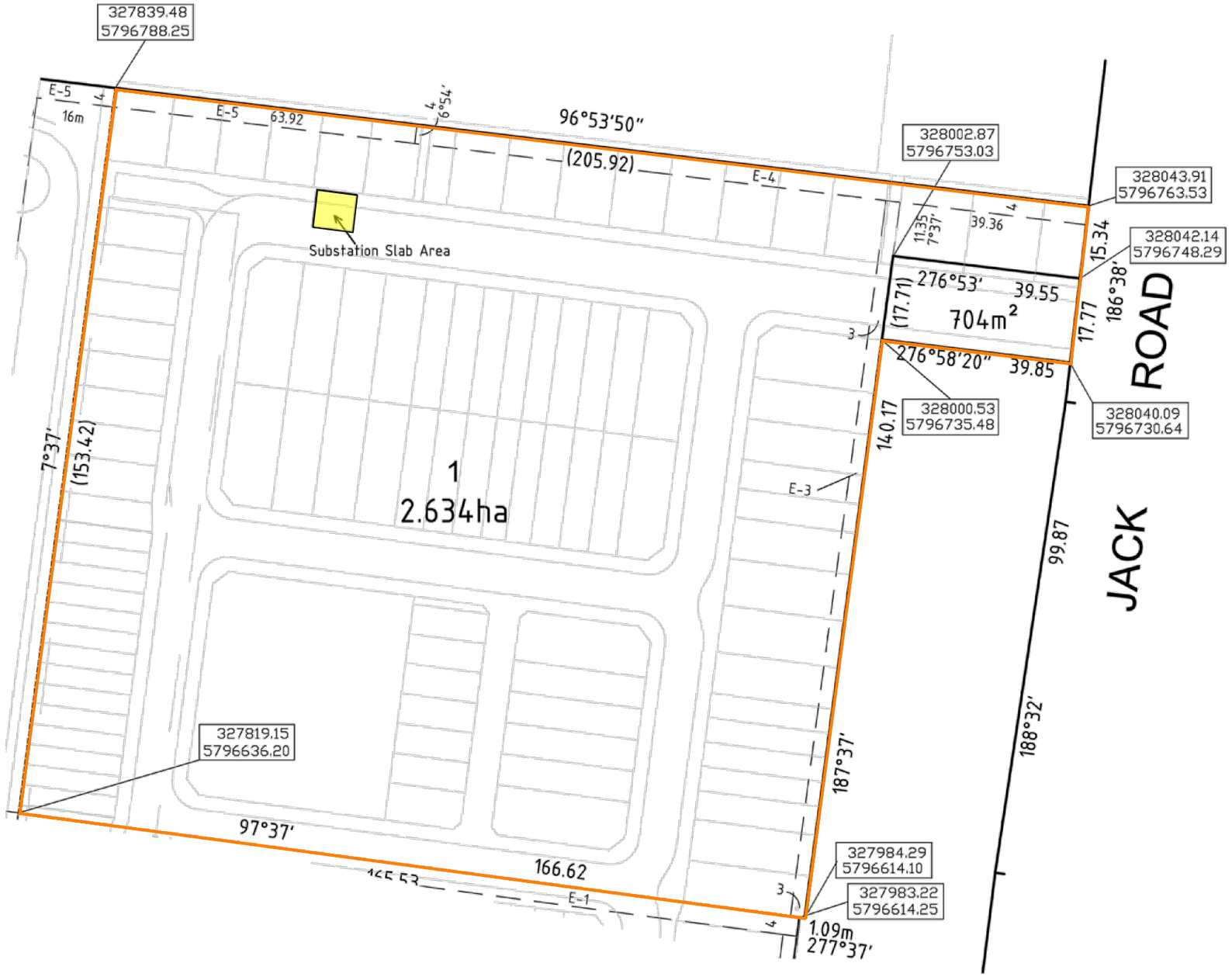
7. The extractive beneficial uses 'Potable Water Supply', 'Stock Watering' and 'Primary Contact Recreation' and 'Industrial Use' are precluded by one or more of trichloroethene, 1,2 dichloroethane, 1,1 dichloroethane, 1,1, dichloroethene and vinyl chloride in the deep groundwater aquifer (at approximate depths of 7-10mbgs).
8. Elevated concentrations of aluminium, iron, pH, selenium, arsenic, cobalt, copper, total chromium, lead, manganese, molybdenum, nickel, zinc, fluoride, nitrate and nitrite within the shallow and/or deep aquifer are not considered to be derived from the Site itself. The presence of these elevated metals/contaminants may preclude one or more of the following beneficial uses: 'Maintenance of Ecosystems', 'Potable Water Supply', 'Agriculture, Parks and Gardens', 'Stock Watering', 'Primary Contact Recreation' and 'Industrial Use'. Volatile chlorinated hydrocarbon contamination of perched and deeper groundwater beneath the Site is the result of polluted sources from the Site as well as from upgradient sources (ie the Site is a co-source of chlorinated hydrocarbons contamination).
9. Any soils and/or rock to be excavated from the Site and disposed of off-Site must be classified and managed in accordance with relevant statutory regulations and EPA guidelines (e.g. IWRG 621).
10. Any fill or soil imported to the Site shall be chemically tested soil or fill that classifies as "fill material" in accordance with relevant EPA guidelines.
11. In accordance with section 53ZE of the Environment Protection Act 1970 the owner/occupier of the Site must provide a copy of this SoEA and the Contaminant Management Plans to any person who becomes or proposes to become an occupier of the Site.

This statement forms part of environmental audit report *(Peraco Environmental Services Pty Ltd, Environmental Audit Report, 33 Jack Road, Cheltenham, 3192, Report Number J8427-R02, 2nd October 2014*). Further details regarding the condition of the Site may be found in the environmental audit report.

DATED 2nd October 2014

Signed

Peter Mirkov
ENVIRONMENTAL AUDITOR



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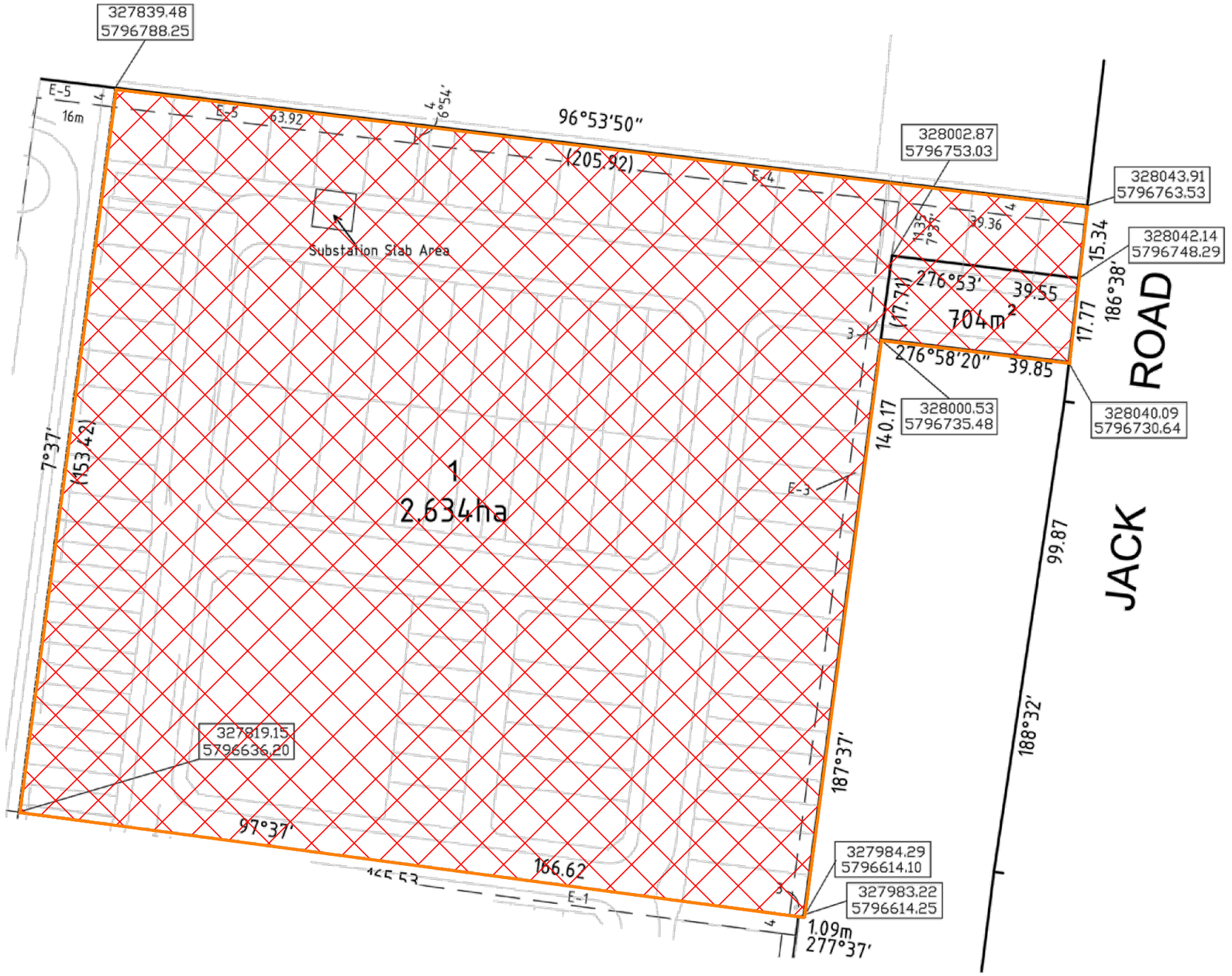
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Drawing Number: **J8427-4B**	
Revision: **A**	
Date: **11/09/14**	
Author: **LZ**	*Checked by:* **MB**
Data Source: **Head & Humphreys, 7033-00-ENV-0201**	

ENVIRONMENTAL AUDIT BOUNDARY

EXTENT OF ELECTRICAL SUBSTATION

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 1B - Electrical Substation - Area B



peraco	0 10 20 m, 1:1000, N	Drawing Number: **J8427-4B** Revision: **A** Date: **11/09/14** Author: **LZ** Checked by: **MB** Data Source: **Head & Humphreys, 7033-00-ENV-0201**	ENVIRONMENTAL AUDIT BOUNDARY GQRUZ EXTENT

Client	**Jack Road Investments Pty Ltd**
Site	33 Jack Road, Cheltenham
Title	Figure 2B - Recommended GQRUZ