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# Environment Protection Authority

## Preliminary Methane Investigation Landfill Screening Project

January 2009



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# 1. Introduction

The Environment Protection Authority Victoria (EPA) contracted GHD Pty Ltd (GHD) to undertake a preliminary methane monitoring programme around selected landfills. EPA identified that these landfills required monitoring to confirm their methane status relative to nearby offsite building development.

## 1.1 Background

EPA has conducted an assessment of EPA licensed landfills throughout Victoria to identify if there are any sites that might pose a community risk due to offsite migration of methane. EPA engaged GHD to undertake monitoring work at 19 sites where EPA's assessment process identified perimeter methane monitoring was required.

This report details the results of the methane monitoring undertaken.

## 1.2 Scope

The scope of the project was to:

- » Establish soil gas bores up to 1.5 m in depth below ground level in the vicinity of the nominated landfills with particular reference to any nearby sensitive land uses;
- » Sample the soil gas bores using a methane and oxygen dual monitor, to determine whether methane is migrating beyond the boundary of the landfill towards sensitive land uses; and
- » Where methane was detected at a landfill boundary, conduct a monitoring sweep of service pits (stormwater and electrical) within the area to check for the presence of methane.

## 1.3 Objective

The objective of this initial phase of the project is to determine whether any of the nominated landfills pose a potential risk to proximate sensitive land uses due to methane migration.

## 1.4 Limitations

This report has been prepared for use by EPA only who has commissioned the works and investigations, in accordance with their instructions and GHD's proposal, and has been based on information and subsequent directions provided by the client.

The information and advice herein relates only to this project and all results should be reviewed by a competent and experienced person with experience in environmental investigations before being used for any other purpose.

GHD accepts no liability for use or interpretation by any person or body other than the EPA who commissioned this work. This report should not be reproduced, or amended in any way without prior approval by EPA and GHD.



The extent of bore establishment and sampling has been necessarily limited at this stage, and has been targeted towards areas where methane migration could impact on sensitive land uses based on knowledge of the site history, surrounding geology and topography, visual observation, and where access could be obtained to the preferred bore establishment/sampling locations. This approach should enable an assessment to be made of whether a site has methane migration that could impact on nearby sensitive land uses. However, it may not identify such migration that occurs in unexpected locations or from unexpected sources.

Further, soil, rock, aquifer and landfill conditions (e.g. age, design, waste types received) are often variable resulting in non-homogeneous distribution and migration of methane from sites, where this is occurring. Where methane concentrations have been identified at sample locations around a site, conditions between sample locations can only be inferred on the basis of the estimated geological and hydrogeological conditions and the recorded concentrations and extent of the identified methane.

Conditions between zones of variable concentration are often difficult to determine, and interpretations would need to be based on the available information and the application of professional judgment. The accuracy with which the subsurface conditions have been characterised depends on the frequency and methods of sampling and the uniformity, or otherwise, of subsurface conditions, and is therefore limited by the scope of works undertaken.

This report does not provide a complete assessment of the environmental status of the sites investigated during this phase of the project, and is limited to the scope defined herein. Should further information become available regarding conditions at the sites investigated, GHD reserves the right to review the report in the context of the additional information.





## 2. Methodology

### 2.1 EPA Screening

EPA conducted an assessment of current and former EPA-licensed landfills across Victoria. The assessment considered key characteristics of the landfills.

The risk assessment identified 20 landfill sites where further information was required on the methane status of the landfill. GHD were commissioned to undertake methane testing for 19 of these sites to provide an indication of the potential for methane to migrate from the landfill site. Details of these sites are presented in Table 2.1 (in alphabetical order by suburb/town).

**Table 1 Landfills Subject to Field Investigation**

#	EPA Licence Number	Licence Holder	Site Address
1	<b>HS311</b>	ARARAT RURAL CITY COUNCIL	Queen Street South, <b>ARARAT</b> , 3377
2	<b>LS169</b>	EAST GIPPSLAND SHIRE COUNCIL	Bosworth Road, <b>BAIRNSDALE</b> , 3875
3	<b>ES506</b>	HUME CITY COUNCIL	Corner Bolinda Road and Sydney Road, <b>CAMPBELLFIELD</b> , 3061
4	<b>ES24499</b>	MOUNT ALEXANDER SHIRE COUNCIL	Sluicers Road, <b>CASTLEMAINE</b> , 3450
5	<b>ES491</b>	TPI	Corner of Deals Road and Ryans Road, <b>CLAYTON</b> , 3169
6	<b>ES20872</b>	CLAYTON ROAD LANDFILL JV	654-718 Clayton Road, <b>CLAYTON SOUTH</b> , 3169
7	<b>ES49849</b>	TPI	Corner Deals Road and Heatherton Road, <b>CLAYTON SOUTH</b> , 3169
8	<b>ES419</b>	TPI	Victory Road, <b>CLAYTON SOUTH</b> , 3169
9	<b>EM28818</b>	TPI	Fraser Road, <b>CLAYTON SOUTH</b> , 3169
10	<b>ES146</b>	ERNEST SMITH CONTRACTORS P/L	Lot 1 Lp46395, Lots 1,2 & 3 Lp61906, Lot 1 Lp79066 & Pt Ca 2Section 14 Parish Of Mordialloc, <b>DINGLEY</b> , 3172
11	<b>ES177</b>	EPPING WASTE DISPOSAL ENTERPRISES P/L	Lots 1 & 2 Childs Road, <b>EPPING</b> , 3076



#	EPA Licence Number	Licence Holder	Site Address
12	<b>ES37130</b>	BASS COAST SHIRE COUNCIL	Grantville Gravel Reserve, Corner Bass Highway and Stanley Road, <b>GRANTVILLE</b> , 3984
13	<b>HS1400</b>	MITCHELL SHIRE COUNCIL	Walders Road, <b>KILMORE</b> , 3764
14	<b>ES511</b>	SITA	890 Taylors Road, <b>LYNDHURST</b> , 3975
15	<b>ES453</b>	MORNINGTON PENINSULA SHIRE COUNCIL	C/A 38b Sect A Parish Of Wannaeu, <b>RYE</b> , 3941
16	<b>ES109</b>	GLYNLEE P/L	Corner Clarke Road and Spring Road, <b>SPRINGVALE</b> , 3171
17	<b>ES553</b>	CITY OF GREATER DANDENONG	Clarke Road, <b>SPRINGVALE SOUTH</b> , 3172
18	<b>EM28913</b>	KNOX CITY COUNCIL	Corner High Street & Cathies Lane, <b>WANTIRNA SOUTH</b> , 3152
19	<b>LS118</b>	LATROBE CITY COUNCIL	Mill Road, <b>YALLOURN NORTH</b> , 3825

## 2.2 Methane Investigations

The methodology for determining whether methane migration is occurring beyond site boundaries and potentially able to impact on nearby sensitive land uses is described below.

Bores were installed and monitored at the nominated sites between 13 October and 25 November 2008 in accordance with the programme schedule presented in Appendix A.

### 2.2.1 Bore Location

Bore location was initially selected on the basis of covering each side of the nominated landfill sites with particular emphasis on those site boundaries proximate to sensitive land uses such as housing. This was the indicative sampling plan initially provided to GHD field staff.

As the purpose of the investigations was to determine whether methane is migrating beyond site (and/or buffer) boundaries, it was appropriate to establish soil gas sampling bores away from the landfill and towards the identified sensitive land uses.

When field staff attended a site these considerations were addressed on site, and other aspects and issues such as topography and access were taken into consideration in determining final bore locations. In addition, EPA reviewed proposed locations for the bores and some proposed bore locations were changed or additional bores requested.

All prospective bore locations were screened for underground services using a specialist sub-contractor in conjunction with maps provided by utility companies, where necessary. All bore locations were logged using a GPS and photographed (refer Appendix C).

Dependent on the initial test results for methane after establishment of a bore, or on re-sampling within a 24 to 48 hour period, additional bores were established to delineate potential methane migration. This typically involved establishing additional bores in the direction towards sensitive land uses.

Typically no further bores were established at a site where there was no detectable methane in the bore after a 24 to 48 hour period.

Where a number of landfill sites were in close proximity, such as in the Clayton and Springvale areas, a slightly different strategy was developed to determine whether there were any potential issues at locations between landfills as well as near sensitive land uses.

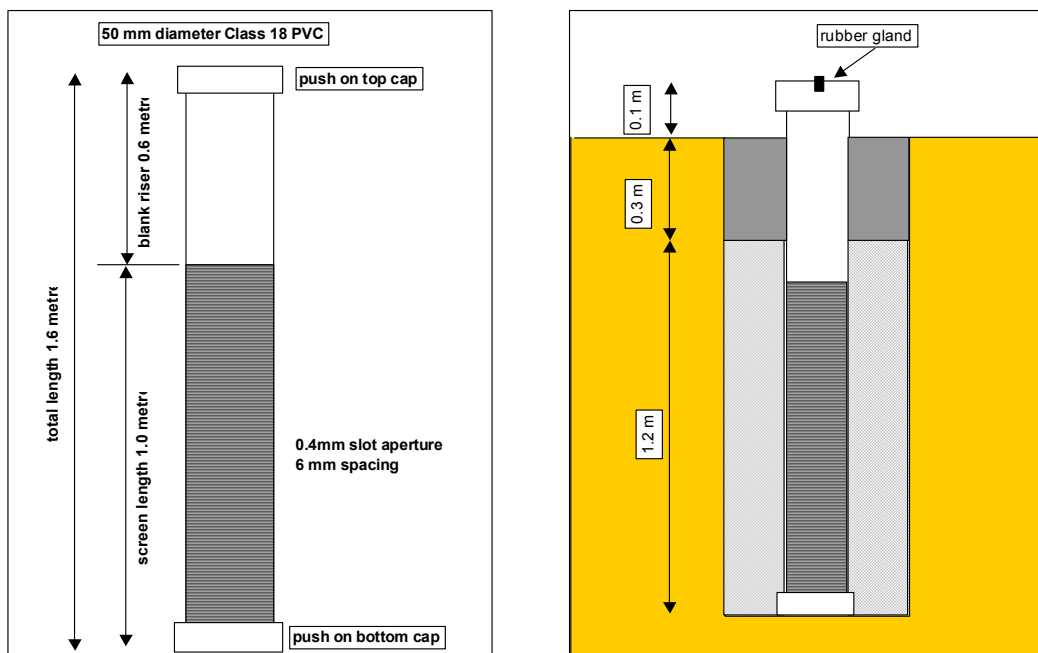
The bore locations for each site are presented in Appendix B.

The location of the nearest sensitive land use and the presence of dead vegetation (as a possible indicator of elevated methane levels) were recorded by field staff (refer tables of results presented in section 3 for recorded observations).

## 2.2.2 Bore Construction

Bore construction was as indicated in Figure 2.1, except where auger refusal caused bores to be established to depths less than 1.5 m below ground level. Where shorter bores were established, the excess section of pipe was cut from the slotted or bottom part of the bore. The shortest bores established were 0.8 to 0.9 m below ground level.

Figure 2.1 - Landfill Gas Monitoring Probes - Schematic Design



### Installation Method:

1. Hand auger down to 100 mm for initial u/g service check EVEN IF dial-before-you-dig indicates no services in area.
2. Ream out hole using motorised auger and continue (if possible) to total depth of 1.5 m
3. IF BOREHOLE IS UNSTABLE, use PVC sleeving to keep hole open ie alternate between augering and rotating the sleeve in - TURN AUGER OFF before using the sleeve
4. Place top cap on pipe
5. Backfill with 1840 graded sand (or equivalent) back up to 0.2 m above top of slotted section
- IF using PVC sleeve, alternate between pouring sand in and pulling sleeve out (using vice grips or other similar device)
6. Check on sand level with steel measuring tape - once at 0.3 m below ground, stop
7. Pour in bentonite up to 5 cm below ground level, and hydrate with 500 mL of water
8. Drill hole into top of top cap, and place rubber gland in hole



As indicated in Figure 2.1, the holes in the ground were established using a hand auger and/or a motorised auger. In a couple of instances, due to the presence of rock, larger drill rigs were provided and used by specialist sub-contractors in order to establish the bores.

### 2.2.3 Bore Monitoring

Bore monitoring took place immediately upon bore establishment, and in a couple of instances where initial readings were high, bores were checked again before leaving the area. Bores were then monitored again within 24 to 48 hours after establishment (in most cases). Depending on the results obtained additional monitoring occurred at some sites/bores.

Monitoring was undertaken using a Q-RAE Plus Multi-Gas Monitor(PGM-2000/2020) and GA2000 portable gas analyser. Appendix D contains further information on the specifications of these instruments.

The Q-RAE monitors methane (CH<sub>4</sub>) levels as a percentage of LEL (Lower Explosive Limit), until 100% LEL is reached (i.e. 5% v/v CH<sub>4</sub>) where the monitor alarm sounds and it then starts to read directly in %v/v CH<sub>4</sub>, i.e. 5% v/v CH<sub>4</sub>, 6% v/v CH<sub>4</sub>, 7% v/v CH<sub>4</sub>, etc. The monitor can read up to 100% v/v CH<sub>4</sub>. The lower detection limit of the monitor appears to be about 2% to 3% LEL (or 0.1%-0.15% v/v CH<sub>4</sub>). The explosive range for methane is approximately 5-15% v/v. Oxygen levels are displayed on the monitor as %v/v O<sub>2</sub>.

The GA2000 displays methane (CH<sub>4</sub>), Carbon dioxide (CO<sub>2</sub>), Oxygen(O<sub>2</sub>) and the balance of gas, expressed as %v/v.

During bore establishment, field teams were instructed to monitor gases while the hole was being established if any odours were noticed during this process. In a couple of instances, strong odours were noticed and the monitor indicated readings above 10% LEL (0.5% v/v). In these instances (>10% LEL) staff were instructed not to establish a bore but to move to an acceptable location further away from the landfill and try again.

### 2.2.4 Interpretation of Results

The interpretation of results has initially been based on the following investigation criteria developed as per the document *Best Practice Environmental Management (Siting, Design, Operation and Rehabilitation of Landfills)*, EPA (October 2001).

**Table 2 Adopted Investigation criteria**

Methane Level (%v/v)	<1	>1
Site Status	No Further Action	Further Action Required

It is intended that these thresholds, the status of the sites with respect to the nature of further investigations or required actions, and the assignment of priority will be re-examined and developed further with EPA as a result of this testing programme.



### 3. Results

The results of preliminary methane monitoring of the sites, in alphabetical order by suburb/town, as per Table 1, are presented as follows.

**Landfill:** Ararat  
**Licence No.:** HS 311

**Bore No.:** AR-BH1  
**GPS (GDA 94):** 54671274 E  
 5870152 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		16/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	21.00	0.00	20.90	50m	Some trees closer to landfill
0.50	0.00	21.00	0.00	20.50		
0.75	0.00	21.00	0.00	20.90		
1.00	0.00	21.00	0.00	20.60		
1.25	0.00	21.00	0.00	20.40		
1.50	0.00	21.00	0.00	ND		
Monitor Used:		Q-RAE				

**Bore No.:** AR-BH2  
**GPS (GDA 94):** 54670806 E  
 5870171 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		16/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	21.90	0.00	20.90	200m	Some bush
0.50	0.00	21.90	0.00	20.40		
0.75	0.00	21.90	0.00	20.90		
1.00	0.00	21.90	0.00	20.40		
1.25	0.00	21.90	0.00	20.60		
1.50	0.00	ND	0.00	ND		
Monitor Used:		Q-RAE				

Note to tables: 'ND' denotes No Data

**Landfill:** Bairnsdale      Note to tables: ND denotes 'No Data'  
**Licence No.:** LS169

**Bore No.:** BA-BH1  
**GPS (GDA 94):** 37.83798 Lat  
147.61739 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		15/10/2008		20/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	18.20	0.15	18.50	10m	No Dead Vegetation visible
0.50	0.00	ND	0.00	18.20	0.15	18.50		
0.75	0.00	ND	0.00	18.10	0.15	18.40		
1.00	0.00	ND	0.00	18.10	0.15	18.30		
1.25	0.00	ND	0.00	18.10	0.15	18.30		
1.50	0.00	ND	0.00	ND	0.00	ND		
<b>Monitor Used:</b>	Q-RAE							

**Bore No.:** BA-BH2  
**GPS (GDA 94):** 37.83695 Lat  
147.61797 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		15/10/2008		20/10/2008		28/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.15	16.50	0.15	17.30	0.00	19.60	30-40m	No Dead Vegetation visible
0.50	0.00	ND	0.15	16.40	0.20	16.90	0.00	19.60		
0.75	0.00	ND	0.15	16.30	0.20	16.80	0.00	19.30		
1.00	0.00	ND	0.15	16.90	0.20	16.40	0.00	19.30		
1.25	0.00	ND	0.15	16.00	0.20	16.30	0.00	19.30		
1.50	0.00	ND	0.15	16.10	0.20	16.20	0.00	19.30		
<b>Monitor Used:</b>	Q-RAE									

**Bore No.:** BA-BH3  
**GPS (GDA 94):** 37.83427 Lat  
147.62109 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		15/10/2008		20/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	20.00	ND	2.15	16.00	0.50	15.80	No data Recorded	No Dead Vegetation visible
0.50	30.00	ND	2.40	15.70	0.50	15.90		
0.75	47.00	ND	2.65	15.20	0.50	16.20		
1.00	72.00	ND	3.00	14.40	0.55	15.30		
1.25	84.00	ND	3.35	14.20	0.60	15.10		
1.50	0.00	ND	3.40	14.20	0.15	20.10		
Monitor Used:	Q-RAE							

High methane levels recorded at this bore were suspected to be caused by the large amounts of organic material in the soil surrounding. A sample was taken and monitored, however, the results were inconclusive. Further monitoring or investigation is recommended to better determine the source of the methane.

**Bore No.:** BA-BH4  
**GPS (GDA 94):** 37.83921 Lat  
147.61913 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		15/10/2008		20/10/2008		28/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	18.70	0.15	19.10	0.00	20.60	No Data Recorded	No Dead Vegetation visible
0.50	0.00	ND	0.00	18.60	0.15	19.00	0.00	20.50		
0.75	0.00	ND	0.00	18.70	0.20	19.00	0.00	20.40		
1.00	0.00	ND	0.15	18.60	0.25	18.80	0.00	20.20		
1.25	0.00	ND	0.00	ND	0.00	ND	0.00	ND		
1.50	0.00	ND	0.00	ND	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE									



**Bore No.:** BA-BH5  
**GPS (GDA 94):** 37.83556 Lat  
 147.61889 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		15/10/2008		20/10/2008		28/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	18.60	0.00	16.20	0.00	20.90	20m	No Dead Vegetation visible
0.50	0.00	ND	0.00	18.50	0.00	16.20	0.00	20.90		
0.75	0.00	ND	0.00	18.60	0.00	16.20	0.00	20.90		
1.00	0.00	ND	0.00	18.50	0.00	16.10	0.00	20.90		
1.25	0.00	ND	0.00	18.60	0.00	16.00	0.00	ND		
1.50	0.00	ND	0.00	ND	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE									

**Bore No.:** BA-BH6  
**GPS (GDA 94):** 37.83411 Lat  
 147.61958 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		15/10/2008		20/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	19.10	0.00	15.40	No Data Recorded	No Dead Vegetation visible
0.50	0.00	ND	0.00	19.10	0.15	15.30		
0.75	0.00	ND	0.00	19.20	0.15	15.20		
1.00	0.00	ND	0.00	19.10	0.15	14.90		
1.25	0.00	ND	0.00	ND	0.15	ND		
1.50	0.00	ND	0.00	ND	0.15	ND		
Monitor Used:	Q-RAE							

Note to tables: 'ND' denotes No Data

# GHD

**Landfill:** Campbellfield  
**Licence No.:** ES506

Note to tables: ND denotes 'No Data'

**Bore No.:** CM-BH1  
**GPS (GDA 94):** 320807 E  
5827530 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	16/10/2008		28/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	17.90	0.00	20.20	150m	No Dead Vegetation visible	
0.50	0.00	18.50	0.00	20.40			
0.75	0.00	17.80	0.00	20.20			
1.00	0.00	18.60	0.50	18.80			
1.25	0.00	19.90	0.50	18.70			
1.50	0.00	19.50	0.00	ND			
<b>Monitor Used:</b>		Q-RAE					

**Bore No.:** CM-BH2  
**GPS (GDA 94):** 320498 E  
5826959 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	16/10/2008		28/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.50	20.20	50m	Dead Vegetation visible	
0.50	0.00	ND	0.00	20.50			
0.75	0.00	ND	0.00	20.10			
1.00	0.00	ND	0.00	19.90			
1.25	0.00	ND	0.00	ND			
1.50	0.00	ND	0.00	ND			
<b>Monitor Used:</b>		Q-RAE					

**Bore No.:** CM-BH3  
**GPS (GDA 94):** 5532045 E  
 5826934 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	21/10/2008		22/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	2.5m to houses	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90		
0.75	0.00	20.90	0.00	20.80		
1.00	0.00	20.90	0.00	20.70		
1.25	0.00	20.90	0.00	20.60		
1.50	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE					

# GHD

**Landfill:** Castlemaine  
**Licence No.:** ES24499

**Bore No.:** CS-BH1  
**GPS:** 250751 E  
 5892895 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	18.10	0.00	18.10	400m to factory	No Dead Vegetation visible
0.50	0.00	15.80	0.00	15.80		
0.75	0.00	17.00	0.00	17.00		
1.00	0.00	18.10	0.00	18.10		
1.25	0.00	14.90	0.00	14.90		
1.50	0.00	19.90	0.00	19.90		
Monitor Used:	Q-RAE					

**Bore No.:** CS-BH2  
**GPS:** 250715 E  
 5892673 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	300m to residential	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90		
0.75	0.00	20.90	0.00	20.90		
1.00	0.00	20.90	0.00	20.90		
1.25	0.00	20.90	0.00	20.90		
1.50	0.00	20.90	0.00	20.90		
Monitor Used:	Q-RAE					

**Bore No.:** CS-BH3  
**GPS:** 250464 E  
 5892587 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	500m to residential	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90		
0.75	0.00	20.90	0.00	20.90		
1.00	0.00	20.90	0.00	20.90		
1.25	0.00	20.90	0.00	20.90		
1.50	0.00	20.90	0.00	20.90		
Monitor Used:	Q-RAE					

**Bore No.:** CS-BH4  
**GPS:** 850614 E  
 5892980 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.10	0.00	20.10	200m to factories	No Dead Vegetation visible
0.50	0.00	20.00	0.00	20.00		
0.75	0.00	20.50	0.00	20.50		
1.00	0.00	19.10	0.00	19.10		
1.25	0.00	19.00	0.00	19.00		
1.50	0.00	20.90	0.00	20.90		
Monitor Used:	Q-RAE					

**Landfill:** Clayton Landfills  
**Licence No.:** ES 419; ES 491; ES 49849; ES 20872

**Bore No.:** CL-BH1  
**GPS (GDA 94):** 335081 E  
5797139 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.80	0.00	20.90	2.90	12.00	ND	18.80	0.00	20.30	Plant Nursery 20m East	No Dead Vegetation visible
0.50	0.00	20.80	0.00	20.90	0.80	17.10	0.20	18.70	0.00	20.20		
0.75	0.00	20.90	0.00	20.90	0.55	17.50	0.30	19.70	0.00	20.20		
1.00	0.00	20.90	0.00	20.20	0.50	17.90	0.20	19.70	0.00	20.10		
1.25	0.00	20.90	0.00	20.20	0.35	18.50	0.20	19.60	0.00	20.10		
1.50	0.00	20.50	0.00	20.20	0.30	18.90	0.30	19.70	0.00	20.10		
Monitor Used:	Q-RAE					GA 2000						

**Bore No.:** CL-BH2  
**GPS (GDA 94):** 335095 E  
5797229 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		20/10/2008*		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	2.45	12.40	15.60	0.80	10.80	1.40	Golf Course 1m E; Indigenous plant nursery 50m SE	Large Trees
0.50	4.20	15.20	0.00	20.90	2.60	11.40	15.70	0.80	11.00	1.00		
0.75	7.00	12.80	0.00	3.40	2.65	10.80	16.60	0.50	13.20	0.70		
1.00	8.00	12.20	0.00	3.10	2.85	10.60	10.20	0.40	15.60	0.60		
1.25	8.00	8.30	0.00	3.10	2.45	10.80	20.00	0.30	15.50	0.50		
1.50	10.00	10.60	0.00	3.10	3.10	10.10	20.10	0.30	17.00	0.50		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH3  
GPS (GDA 94): 335112 E  
5797346 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	27.00	9.80	0.00	20.90	3.10	18.70	61.50	0.70	57.90	1.00	Golf Course 1m E	No Dead Vegetation visible
0.50	32.00	6.60	0.00	20.90	4.05	18.00	61.60	0.50	58.40	0.70		
0.75	35.00	5.80	0.00	20.90	5.00	16.80	61.80	0.40	58.20	0.60		
1.00	39.00	3.40	29.00	9.80	6.00	17.90	62.10	0.30	58.60	0.60		
1.25	43.00	1.20	32.00	8.50	5.00	18.20	62.10	0.40	58.60	0.40		
1.50	44.00	1.00	35.00	6.40	5.00	18.10	62.30	0.30	58.60	0.50		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH4  
GPS (GDA 94): 335003 E  
5797119 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.10	20.20	59.40	0.70	57.20	1.10	50m S, small garden centre on opposite side of Heatherton Rd	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.05	20.30	59.30	0.50	57.10	0.80		
0.75	0.00	20.90	0.00	20.90	5.00	17.40	59.80	0.50	57.10	0.70		
1.00	0.00	20.90	36.00	5.40	6.00	17.00	59.60	0.40	57.20	0.60		
1.25	34.00	6.30	37.00	4.70	9.00	13.90	59.70	0.40	57.10	0.60		
1.50	37.00	5.60	38.00	4.10	10.00	14.10	59.70	0.40	57.30	0.50		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH5  
GPS (GDA 94): 334726 E  
5797162 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	5.00	17.00	0.30	18.70	0.00	19.80	20m W	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	6.00	15.70	0.30	18.60	0.00	19.80		
0.75	0.00	20.90	0.00	19.60	5.00	18.90	0.30	18.50	0.00	19.70		
1.00	0.00	20.30	0.00	19.70	18.00	19.50	0.20	19.20	0.00	19.60		
1.25	0.00	20.20	0.00	19.60	0.30	20.10	0.30	19.30	0.00	19.50		
1.50	0.00	20.10	0.00	19.30	0.10	20.30	0.30	18.40	0.00	18.10		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH6  
GPS (GDA 94): - E  
- N

Bore not established due to Auger Refusal

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
0.25	ND	ND	No Data Recorded	No Data Recorded
0.50	ND	ND		
0.75	ND	ND		
1.00	ND	ND		
1.25	ND	ND		
1.50	ND	ND		
Monitor Used:	Not Applicable			



Bore No.: CL-BH7  
GPS (GDA 94): 334993 E  
5798766 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.30	0.20	20.30	0.00	20.20	No Data Recorded	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.30	0.20	20.30	0.10	20.10		
0.75	0.00	20.90	0.00	20.90	0.00	20.00	0.20	20.20	0.00	20.00		
1.00	0.00	20.90	0.00	20.90	0.00	20.40	0.20	20.00	0.10	19.60		
1.25	0.00	20.90	0.00	20.90	0.00	20.30	0.30	19.80	0.10	19.40		
1.50	0.00	20.90	0.00	20.90	0.00	20.20	0.20	19.40	0.10	19.10		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH8  
GPS (GDA 94): 335094 E  
5798749 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.50	0.00	20.50	0.30	20.30	0.10	20.50	No Data Recorded	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.40	0.00	20.50	0.30	20.30	0.10	20.40		
0.75	0.00	20.90	0.00	20.40	0.00	20.40	0.30	20.60	0.10	20.20		
1.00	0.00	20.90	0.00	20.50	0.00	20.40	0.30	20.20	0.10	20.00		
1.25	0.00	20.90	0.00	20.40	0.00	20.30	0.30	19.80	0.10	19.80		
1.50	0.00	20.90	0.00	20.40	0.00	20.20	0.30	19.50	0.10	20.10		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH9  
GPS (GDA 94): 334337 E  
5797693 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.00	0.00	20.20	0.00	20.90	0.35	20.20	0.30	18.50	0.10	20.90	No Data Recorded	No Dead Vegetation visible
0.50	0.00	20.00	0.00	20.20	0.00	20.90	0.35	19.60	0.30	18.40	0.10	19.20		
0.75	0.15	19.90	0.00	20.20	0.00	20.90	0.25	19.50	0.30	18.30	0.10	19.10		
1.00	0.00	20.90	0.00	18.70	0.00	19.20	0.20	19.60	0.20	18.10	0.10	18.60		
1.25	0.00	20.40	0.00	18.70	0.00	19.00	0.20	19.50	0.30	17.80	0.10	18.40		
1.50	0.00	19.80	0.00	18.30	0.00	18.90	0.15	19.50	0.20	17.70	0.10	18.20		
Monitor Used:	Q-RAE						GA 2000							

Bore No.: CL-BH10  
GPS (GDA 94): 334355 E  
5797816 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.60	0.70	20.40	0.00	20.90	0.00	20.90	62.10	0.80	59.20	0.60	100 SE, dwelling	No Dead Vegetation visible
0.50	0.00	20.60	39.00	5.90	0.00	20.90	10.00	15.70	62.10	0.60	60.30	0.40		
0.75	35.00	5.40	40.00	5.50	0.00	20.90	13.00	15.10	61.00	0.50	60.60	0.30		
1.00	36.00	4.80	41.00	5.40	42.00	4.80	13.00	14.00	62.00	0.50	60.50	0.30		
1.25	37.00	4.60	45.00	3.60	43.00	3.30	14.00	13.70	62.20	0.40	61.00	0.20		
1.50	36.00	4.80	46.00	3.60	44.00	3.60	15.00	14.20	62.30	0.40	61.40	0.30		
Monitor Used:	Q-RAE						GA 2000							

Bore No.: CL-BH11  
GPS (GDA 94): 334479 E  
5798005 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	0.00	0.00	0.00	0.00	20.90	0.00	20.60	61.30	0.60	60.80	0.40	50m N, to waste depot	No Dead Vegetation visible
0.50	0.00	0.00	0.00	0.00	0.00	20.90	0.90	12.50	61.10	0.50	61.20	0.20		
0.75	47.00	1.70	47.00	3.70	47.00	2.60	0.95	10.70	61.10	0.50	61.30	0.20		
1.00	48.00	1.60	47.00	3.60	48.00	2.40	0.85	11.90	61.30	0.40	62.00	0.20		
1.25	48.00	1.50	48.00	3.30	48.00	2.40	0.75	12.70	61.30	0.40	61.90	0.20		
1.50	48.00	1.50	12.00	18.80	48.00	2.40	0.75	11.60	61.50	0.40	60.90	0.20		
Monitor Used:	Q-RAE						GA 2000							

Bore No.: CL-BH12  
GPS (GDA 94): 334594 E  
5797990 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	48.00	1.80	0.00	2.00	0.00	20.90	0.20	20.50	60.00	0.60	61.40	0.40	50m N, recycling centre	No Dead Vegetation visible
0.50	49.00	1.70	49.00	1.80	48.00	1.90	0.20	20.50	59.90	0.50	61.30	0.30		
0.75	49.00	1.70	50.00	1.50	49.00	1.70	0.15	20.70	60.20	0.50	61.20	0.30		
1.00	49.00	1.70	51.00	1.10	49.00	1.70	0.20	20.60	60.00	0.50	61.40	0.30		
1.25	49.00	1.70	51.00	1.10	49.00	1.70	0.20	20.60	60.40	0.50	61.40	0.20		
1.50	49.00	1.70	51.00	1.00	49.00	1.70	0.15	20.60	60.50	0.40	61.30	0.20		
Monitor Used:	Q-RAE						GA 2000							

Bore No.: CL-BH13  
 GPS (GDA 94): - E  
 - N

**Bore not established due to Auger Refusal**

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
0.25	ND	ND	No Data Recorded	No Data Recorded
0.50	ND	ND		
0.75	ND	ND		
1.00	ND	ND		
1.25	ND	ND		
1.50	ND	ND		
Monitor Used:	Not Applicable			

Bore No.: CL-BH14  
 GPS (GDA 94): 335955 E  
 5797559 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation
	16/10/2008		17/10/2008		20/10/2008		24/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.00	20.70	0.10	20.20	0.10	19.90	Residential Dwellings ~20m E	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.00	20.70	0.10	19.30	0.00	19.90		
0.75	0.00	20.90	0.00	20.90	0.00	20.90	0.00	19.90	0.10	19.70	0.00	19.80		
1.00	0.00	20.40	0.00	20.40	0.00	19.60	0.00	19.90	0.10	19.70	0.00	19.80		
1.25	0.00	ND	0.00	ND	0.00	19.50	0.00	20.00	0.10	19.00	0.10	19.80		
1.50	0.00	ND	0.00	ND	0.00	19.50	0.00	19.90	0.10	19.10	0.10	19.70		
Monitor Used:	Q-RAE						GA 2000							

Bore No.: CL-BH15  
GPS (GDA 94): 336042 E  
5798207 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	16/10/2008		20/10/2008		24/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.70	0.00	19.60	0.10	21.00	0.10	21.10	Residential Dwellings 10m E	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.70	0.00	20.50	0.10	21.00	0.10	21.10		
0.75	0.00	20.90	0.00	20.60	0.00	20.50	0.20	21.00	0.10	21.10		
1.00	0.00	20.50	0.00	20.30	0.00	20.50	0.20	21.00	0.10	21.00		
1.25	0.00	20.50	0.00	20.20	0.00	20.50	0.20	21.00	0.10	20.90		
1.50	0.00	20.50	0.00	20.20	0.00	20.50	0.20	20.90	0.10	20.80		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH16  
GPS (GDA 94): 335379 E  
5797073 N

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	16/10/2008		20/10/2008		24/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.20	20.40	No Data Recorded	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.20	0.20	20.40		
0.75	0.00	20.90	0.00	20.90	0.00	20.10	0.20	20.30		
1.00	0.00	20.90	0.00	20.00	0.00	19.90	0.10	20.2		
1.25	0.00	20.90	0.00	19.80	0.00	19.70	0.00	ND		
1.50	0.00	20.90	0.00	19.70	0.00	19.40	0.00	ND		
Monitor Used:	Q-RAE					GA 2000				

Bore No.: CL-BH17  
GPS (GDA 94): 334354 E  
5798200 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008		23/10.08		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.70	0.30	11.40	0.00	14.40	Residential, 15m N	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.70	0.30	11.40	0.00	14.00		
0.75	0.00	20.90	0.00	20.90	0.00	20.70	0.20	10.80	0.00	13.60		
1.00	0.00	16.40	0.00	17.70	0.00	18.50	0.20	9.60	0.00	11.40		
1.25	0.00	15.90	0.00	16.40	0.00	18.10	0.20	8.70	0.00	10.20		
1.50	0.00	15.70	0.00	15.10	0.00	17.90	0.20	8.50	0.00	9.40		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH18  
GPS (GDA 94): 334266 E  
5798209 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008		23/10.08		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.30	0.20	17.80	0.00	18.00	Dwelling, 20m N	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.10	0.20	17.80	0.00	17.90		
0.75	0.00	20.90	0.00	20.90	0.00	19.40	0.20	17.80	0.00	17.60		
1.00	0.00	19.60	0.00	20.90	0.00	19.20	0.20	17.70	0.00	17.20		
1.25	0.00	19.40	0.00	19.40	0.00	19.20	0.30	17.60	0.00	17.10		
1.50	0.00	18.90	0.00	19.10	0.00	19.20	0.30	17.50	0.00	17.00		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH19  
 GPS (GDA 94): 334438 E  
 5798461 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008		23/10.08		30/10/2008		18/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.30	20.20	0.00	19.70	Residential, 30m W	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.30	20.00	0.00	19.50		
0.75	0.00	20.90	0.00	20.60	0.00	20.90	0.30	19.90	0.00	19.50		
1.00	0.00	20.90	0.00	20.60	0.00	20.90	0.20	19.90	0.00	19.50		
1.25	0.00	20.40	0.00	20.40	0.00	20.90	0.30	19.70	0.00	19.40		
1.50	0.00	20.40	0.00	20.10	0.00	20.90	0.20	19.60	0.00	19.20		
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH20  
 GPS (GDA 94): 334292 E  
 5797774 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008		23/10.08		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.30	21.20	0.10	17.00	Concrete plant 20m S, Residential dwelling 70-80m S	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.30	15.50	0.10	14.90		
0.75	0.00	20.90	0.00	18.10	0.00	19.70	0.30	14.30	0.10	14.10		
1.00	0.00	20.90	0.00	18.30	0.00	19.20	0.30	13.90	0.10	13.80		
1.25	0.00	20.90	0.00	17.10	0.00	18.40	0.20	13.70	0.10	13.30		
1.50	0.00	17.70	0.00	17.00	0.00	18.30	0.20	13.60	0.10	13.10		
Monitor Used:	Q-RAE					GA 2000						

**Bore No.:** CL-BH21  
**GPS (GDA 94):** 335834 E  
5798643 N

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008		23/10.08		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.00	21.00	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.00	21.00		
0.75	0.00	20.90	0.00	20.90	0.00	20.90	0.00	21.00		
1.00	0.00	20.90	0.00	20.50	0.00	20.90	0.00	20.90		
1.25	0.00	ND	0.00	ND	0.00	20.90	0.00	20.80		
1.50	0.00	ND	0.00	ND	0.00	20.90	ND	ND		
Monitor Used:	Q-RAE						GA 2000			

**Bore No.:** CL-BH22  
**GPS (GDA 94):** 334556 E  
5798206 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	24/10/2008		3/11/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.00	21.10	0.00	20.80	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.00	21.20	0.00	20.60		
0.75	0.00	20.90	0.00	20.90	0.00	20.60		
1.00	0.00	20.90	0.00	20.90	0.00	20.70		
1.25	0.00	ND	0.00	21.20	0.00	ND		
1.50	1.00	ND	0.00	21.20	0.00	ND		
Monitor Used:	Q-RAE		GA 2000					



**Bore No.:** CL-BH23  
**GPS (GDA 94):** 334542 E  
5798092 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	24/10/2008		3/11/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.10	ND	0.10	20.80	0.00	20.30	Residential 30m N	No Dead Vegetation visible
0.50	0.00	ND	0.00	20.60	0.00	20.20		
0.75	0.00	ND	0.00	20.30	0.00	20.10		
1.00	0.00	ND	0.00	20.30	0.10	19.90		
1.25	0.00	ND	0.00	ND	0.00	20.00		
1.50	0.00	ND	0.00	ND	ND	ND		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH24  
**GPS (GDA 94):** 334408 E  
5798227 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	24/10/2008		3/11/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (%) (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.10	18.20	0.00	20.30	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.10	18.70	0.00	19.50		
0.75	0.00	20.90	0.10	18.70	0.00	19.30		
1.00	0.00	20.90	0.20	18.60	0.00	19.10		
1.25	0.00	20.90	0.20	18.40	0.00	18.90		
1.50	0.00	19.60	0.10	18.40	0.00	18.90		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH25  
**GPS (GDA 94):** 334390 E  
5798112 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	24/10/2008		3/11/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.20	18.60	0.00	17.20	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.20	16.80	0.00	16.70		
0.75	0.00	19.90	0.20	16.40	0.00	15.60		
1.00	0.00	19.40	0.20	15.90	0.00	15.00		
1.25	0.00	18.70	0.20	15.30	0.00	14.50		
1.50	0.00	17.60	0.20	14.90	0.00	14.50		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH26  
**GPS (GDA 94):** 334401 E  
5798033 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	27/10/2008		6/11/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.20	16.00	0.10	16.50	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.20	15.80	0.10	15.50		
0.75	0.00	20.90	0.20	15.60	0.10	15.10		
1.00	0.00	19.10	0.10	15.00	0.10	14.40		
1.25	0.00	19.20	0.10	13.70	0.10	13.90		
1.50	0.00	18.60	0.20	13.70	0.10	13.70		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH27  
**GPS (GDA 94):** 335748 E  
5797024 N

**Bore not established as found to be within old landfill cell.**

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation
	28/10/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
0.25	ND	ND	No Data Recorded	No Data Recorded
0.50	ND	ND		
0.75	ND	ND		
1.00	ND	ND		
1.25	ND	ND		
1.50	ND	ND		
Monitor Used:	Not Applicable			

**Bore No.:** CL-BH28  
**GPS (GDA 94):** 225922 E  
5797315 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	28/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.20	20.10	0.00	20.10	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.10	20.40	0.00	19.40		
0.75	0.00	20.50	0.10	19.10	0.00	19.50		
1.00	0.00	20.50	0.10	18.40	0.00	18.60		
1.25	0.00	20.50	0.10	17.80	0.00	18.30		
1.50	0.00	20.50	0.10	17.80	0.00	18.30		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH29  
**GPS (GDA 94):** 335899 E  
5797117 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	28/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.10	19.30	0.00	20.30	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.10	19.30	0.00	20.20		
0.75	0.00	20.90	0.10	19.20	0.00	20.10		
1.00	0.00	20.90	0.20	19.00	0.00	19.90		
1.25	0.00	20.10	0.10	19.00	0.00	19.70		
1.50	0.00	ND	0.10	18.80	0.00	19.60		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH30  
**GPS (GDA 94):** 335942 E  
5797435 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	28/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.10	18.90	0.00	20.40	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.10	18.50	0.00	19.90		
0.75	0.00	20.00	0.10	18.30	0.00	19.80		
1.00	0.00	19.90	0.10	18.10	0.00	19.60		
1.25	0.00	19.70	0.10	18.30	0.00	19.50		
1.50	0.00	ND	0.00	ND	0.00	19.10		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH31  
**GPS (GDA 94):** 335750 E  
5797024 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	29/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.10	19.20	0.00	20.90	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.40	0.10	19.10	0.00	19.60		
0.75	0.00	20.30	0.10	18.90	0.00	19.10		
1.00	0.00	20.00	0.10	18.60	0.00	18.50		
1.25	0.00	19.60	0.10	18.50	0.00	18.70		
1.50	0.00	19.40	0.10	18.60	0.00	18.70		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH32  
**GPS (GDA 94):** 334836 E  
5787141 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	29/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.20	19.20	0.40	19.30	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.20	19.30	0.40	19.30		
0.75	0.00	20.90	0.20	19.30	0.40	19.20		
1.00	0.00	20.90	0.20	19.40	0.40	19.20		
1.25	0.00	20.90	0.30	18.00	0.40	19.20		
1.50	0.00	20.90	0.30	17.60	0.30	19.20		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH33  
**GPS (GDA 94):** 334658 E  
5797056 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	29/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.00	0.30	18.70	0.40	17.40	Residential 30m N	No Dead Vegetation visible
0.50	0.00	19.30	0.20	18.00	0.40	18.10		
0.75	0.00	19.10	0.20	17.80	0.40	18.50		
1.00	0.00	18.90	0.20	17.90	0.40	17.30		
1.25	0.00	18.70	0.20	17.20	0.40	17.90		
1.50	0.00	18.60	0.20	17.00	0.40	17.00		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH34  
**GPS (GDA 94):** 334657 E  
5797129 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	24/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.20	20.70	0.50	20.30	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.90	0.20	20.70	0.50	20.10		
0.75	0.00	ND	0.20	20.70	0.40	20.00		
1.00	0.00	20.40	0.20	20.40	0.50	19.90		
1.25	0.00	20.30	0.20	20.30	0.50	19.90		
1.50	0.00	20.10	0.20	20.20	0.50	19.60		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH35  
**GPS (GDA 94):** 334575 E  
 5797160 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	29/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.30	0.20	20.20	0.40	19.40	Residential 30m N	No Dead Vegetation visible
0.50	0.00	19.90	0.20	19.60	0.40	19.30		
0.75	0.00	19.80	0.20	19.30	0.40	19.10		
1.00	0.00	19.80	0.20	19.00	0.30	19.00		
1.25	0.00	19.60	0.20	18.90	0.40	18.80		
1.50	0.00	ND	0.20	18.50	0.40	18.60		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH36  
**GPS (GDA 94):** 303618 E  
 58368391 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	29/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.20	0.30	20.30	0.30	19.40	Residential 30m N	No Dead Vegetation visible
0.50	0.00	19.50	0.30	20.80	0.30	19.40		
0.75	0.00	19.40	0.30	20.00	0.30	19.30		
1.00	0.15	19.40	0.30	19.80	0.40	19.40		
1.25	0.15	19.30	0.30	19.40	0.40	19.20		
1.50	0.15	19.20	0.20	19.60	0.30	19.00		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH37  
**GPS (GDA 94):** (55)334272 E  
 5797328 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	29/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	20.90	0.10	20.00	0.30	20.00	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.40	0.20	20.20	0.30	19.60		
0.75	0.00	20.30	0.20	19.40	0.30	19.70		
1.00	0.00	20.30	0.20	18.60	0.30	19.20		
1.25	0.00	20.30	0.20	18.30	0.30	18.60		
1.50	0.00	20.30	0.20	18.20	0.30	18.90		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH38  
**GPS (GDA 94):** - E  
 - N

**Bore not established due to Auger Refusal**

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
0.25	ND	ND	No Data Recorded	No Data Recorded
0.50	ND	ND		
0.75	ND	ND		
1.00	ND	ND		
1.25	ND	ND		
1.50	ND	ND		
Monitor Used:	Not Applicable			



**Bore No.:** CL-BH39  
**GPS (GDA 94):** 334301 E  
5797752 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	29/10/2008		30/10/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.15	18.40	0.20	21.30	0.00	13.30	Residential 30m N	No Dead Vegetation visible
0.50	0.20	17.80	0.20	21.40	0.00	13.20		
0.75	0.20	16.70	0.20	21.10	0.00	13.20		
1.00	0.20	16.10	0.30	21.10	0.00	13.10		
1.25	0.20	15.80	0.30	21.20	0.00	13.20		
1.50	0.20	15.40	0.20	21.20	0.00	13.10		
Monitor Used:	Q-RAE		GA 2000					

**Bore No.:** CL-BH40  
**GPS (GDA 94):** 335452 E  
5788695 N

Depth	Results						Nearest Sensitive Land Use	Nearest Sensitive Land Use
	30/10/2008		6/11/2008		17/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	21.00	0.20	20.50	0.00	20.90	Residential 30m N	No Dead Vegetation visible
0.50	0.00	20.80	0.20	20.00	0.00	21.00		
0.75	0.00	20.50	0.20	19.80	0.00	21.00		
1.00	0.00	20.40	0.20	19.70	0.00	20.90		
1.25	0.00	20.10	0.20	19.60	0.00	20.70		
1.50	0.00	20.10	0.20	19.10	0.00	20.40		
Monitor Used:	GA 2000							

**Service Sweep:** CL Location 1A - Fibre Optics cover, Ryan's rd

Depth	Results		Nearest Sensitive Land Use	Nearest Sensitive Land Use
	27/10/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
0.25	ND	ND	No Data Recorded	No Data Recorded
0.50	ND	ND		
0.75	0.00	20.90		
1.00	ND	ND		
1.25	ND	ND		
Monitor Used:	Q-RAE			

**Service Sweep:** CL Location 1 - Telstra Pit, West side of Clayton Rd, approx. 30m south of Victory Rd(opposite bus shelter) 9:42 am

	Results		Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Open	0.00	20.80	No Data Recorded	No Data Recorded
Service	0.00	21.20		
Monitor Used:	GA 2000			

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL Location 2- ("FP" Plate, west side of Clayton Rd 5m South of Leslie Rd) 10:24 am

	Results		Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008			
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Open	0.00	20.40	No Data Recorded	No Data Recorded
Service	0.00	19.70		
Monitor Used:	GA 2000			

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit) (20m North to houses)

**Service Sweep:** CL West side of Clayton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 3 Telstra Pit 10:30	Open	0.00	20.30	No Data Recorded	No Data Recorded
	Service	0.00	20.10		
Location 4 Telstra Pit 10:36 am	Open	0.00	20.00		
	Service	0.00	20.00		
Location 5 Telstra Pit 10:40 am	Open	0.00	20.10		
	Service	0.00	20.20		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL West side of Clayton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 6 Telstra Pit 11:38	Open	0.00	21.10	No Data Recorded	No Data Recorded
	Service	0.00	21.20		
Location 7 Telstra Pit 11:45am	Open	0.00	21.20		
	Service	0.00	21.10		
Location 8 Telstra Pit	Open	0.00	21.20		
	Service	0.00	21.00		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL East Side of Clayton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 9	Open	0.00	21.10	No Data Recorded	No Data Recorded
Telstra Pit 11:58	Service	0.00	20.60		
Location 10	Open	0.00	21.20		
Access Pit 12:03	Service	0.00	21.20		
Location 11	Open	0.00	21.20		
Access Pit 12:08 pm	Service	0.10	21.00		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 12	Open	0.10	21.10	No Data Recorded	No Data Recorded
Telstra Pit 12:13	Service	0.10	20.30		
Location 13	Open	0.10	21.00		
Access Pit 12:17	Service	0.10	21.20		
Location 14	Open	0.00	21.40		
Access Pit 12:22 pm	Service	0.40	20.70		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 15	Open	0.00	21.20	No Data Recorded	No Data Recorded
Optus Pit	Service	0.00	21.30		
Location 16	Open	0.10	21.30		
Access Pit	Service	0.10	21.10		
Location 17	Open	0.10	21.30		
Telstra Pit	Service	0.10	21.00		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL East side of Clayton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 18	Open	0.10	21.30	No Data Recorded	No Data Recorded
Access Pit 12:39pm	Service	0.10	21.10		
Location 19	Open	0.20	21.20	No Data Recorded	No Data Recorded
Access Pit	Service	0.10	21.20		
Location 20	Open	0.20	21.10	No Data Recorded	No Data Recorded
Access Pit 2:50pm	Service	0.30	21.20		
Location 21 PMG	Open	0.20	21.10	No Data Recorded	No Data Recorded
Pit 12:54pm	Service	0.20	21.30		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL Heatherton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 22 Stormwater drain	Open	0.00	21.20	No Data Recorded	No Data Recorded
	Service	0.00	21.40		
Location 23 Access pit 2:27	Open	0.00	21.50		
	Service	0.00	21.30		
Location 24 Telstra Pit 2:31pm	Open	0.00	21.30		
	Service	0.00	21.10		
Location 25 Telstra Pit 2:34 pm	Open	0.00	21.30		
	Service	0.00	21.10		
Location 26 Access Pit 2:37 pm	Open	0.00	21.40		
	Service	0.00	21.20		
Location 27 Access Pit 2:40pm	Open	0.00	21.30		
	Service	0.00	21.30		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL Heatherton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 28 Telstra Pit	Open	0.00	21.30	No Data Recorded	No Data Recorded
	Service	0.00	21.30		
Location 29 CFC Hydrant 2:57pm	Open	0.00	21.40		
	Service	0.00	21.20		
Location 30 Telstra Pit 3:01pm	Open	0.00	21.40		
	Service	0.00	21.30		
Location 31 CFC Hydrant 3:11pm	Open	0.00	21.40		
	Service	0.00	21.20		
Location 32 Access Pit 3:16pm	Open	0.00	21.50		
	Service	0.00	21.40		
Location 33 Access Pit 3:23pm	Open	0.00	21.40		
	Service	0.00	21.30		
Location 34 Valve(gas valve) 3:33pm	Open	0.00	21.40		
	Service	2.70	16.10		
Location 35 Access Pit 3:36pm	Open	0.00	21.70		
	Service	0.90	20.00		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

**Service Sweep:** CL Bayaley Flowers Warehouse

Location	Results			Nearest Sensitive Land Use	Dead Vegetation
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Corner of Warehouse	Open	0.00	20.70	No Data Recorded	No Data Recorded
	Service	0.00	20.80		
Eastern Side of Building under	Open	0.00	21.00		
	Service	0.00	21.00		
Kitchen under oven Laundry under sink	Open	0.00	21.00		
	Service	ND	ND		
Monitor Used:	GA 2000				

**Landfill:** Dingley  
**Licence No.:** ES 146

**Bore No.:** DY-BH1  
**GPS (GDA 94):** 335094 E  
 5795732 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	14/10/2008		16/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.30	30m E	No Dead Vegetation visible	
0.50	0.00	ND	0.00	20.30			
0.75	0.00	ND	0.00	20.00			
1.00	0.00	ND	0.00	19.80			
1.25	0.00	ND	0.00	19.60			
1.50	0.00	ND	0.00	19.40			
<b>Monitor Used:</b>		Q-RAE					

**Bore No.:** DY-BH2  
**GPS (GDA 94):** 335137 E  
 5795807 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	14/10/2008		16/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	19.40	30m E	No Data Recorded	
0.50	0.00	ND	0.00	19.60			
0.75	0.00	ND	0.00	18.80			
1.00	0.00	ND	0.00	18.50			
1.25	0.00	ND	0.00	17.50			
1.50	0.00	ND	0.00	17.00			
<b>Monitor Used:</b>		Q-RAE					

**Bore No.:** DY-BH3  
**GPS (GDA 94):** 335213 E  
 5795951 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	14/10/2008		16/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.90	30m E	No Dead Vegetation visible	
0.50	0.00	ND	0.00	20.90			
0.75	0.00	ND	0.00	20.90			
1.00	0.00	ND	0.00	20.50			
1.25	0.00	ND	0.00	20.40			
1.50	0.00	ND	0.00	20.40			
Monitor Used:		Q-RAE					

**Bore No.:** DY-BH4  
**GPS (GDA 94):** 335237 E  
 5795993 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	14/10/2008		16/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.40	30m E	No Dead Vegetation visible	
0.50	0.00	ND	0.00	20.40			
0.75	0.00	ND	0.00	20.40			
1.00	0.00	ND	0.00	20.30			
1.25	0.00	ND	0.00	20.10			
1.50	0.00	ND	0.00	19.90			
Monitor Used:		Q-RAE					

**Bore No.:** DY-BH5  
**GPS (GDA 94):** 335331 E  
 5796163 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	14/10/2008		16/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	20.40	30m E	No Dead Vegetation visible
0.50	0.00	ND	0.00	20.40		
0.75	0.00	ND	0.00	20.20		
1.00	0.00	ND	0.00	20.20		
1.25	0.00	ND	0.00	ND		
1.50	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE					

Landfill: Epping  
Licence No.: ES 177

Bore No.: Epping 1  
GPS (GDA 94) 55324718 E  
5830886 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		28/10/2008		21/11/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.70	0.00	20.90	0.00	20.00	20m	No Data Recorded
0.50	0.00	20.50	0.00	20.90	0.00	20.00		
0.75	0.00	19.40	0.00	20.90	0.00	19.40		
1.00	0.00	20.10	0.00	20.60	0.00	17.70		
1.25	0.00	19.50	0.00	20.90	ND	ND		
1.50	0.00	17.50	0.00	ND	ND	ND		
Monitor Used:	Q-RAE			GA 2000				

Bore No.: Epping 2  
GPS (GDA 94) 55324821 E  
5830500 N

Depth	Results**								Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		16/10/2008		28/10/2008		21/11/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.50	0.00	20.90	0.00	20.20	0.00	20.40	Hospital 200m	No Data Recorded
0.60	0.00	19.20	0.00	20.90	0.50	19.40	0.00	20.30		
0.75	0.00	18.50	0.00	20.90	0.50	19.40	0.00	20.40		
1.00	0.00	18.00	0.00	20.90	0.50	19.40	0.00	20.30		
1.25	0.00	ND	0.00	20.90	0.00	ND	0.00	19.90		
1.50	0.00	ND	0.00	20.90	0.00	ND	0.00	19.50		
Monitor Used:	Q-RAE				GA 2000					

\*\* Original of BH2 was not completed because of high LEL reading.  
Field sheet dated 15/10/08. 46% LEL read at 0.6m depth and drilling ceased.



**Bore No.:** Epping 3  
**GPS (GDA 94)** - E  
 - N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	16/10/2008		28/10/2008		21/11/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	21.90	0.00	20.90	0.00	20.30	Hospital 300m	No Dead Vegetation visible
0.50	0.00	21.90	0.00	20.50	0.00	20.30		
0.75	0.00	21.90	0.00	20.40	0.00	19.90		
1.00	0.00	21.90	0.00	20.20	0.00	19.90		
1.25	0.00	21.90	0.00	19.90	0.00	19.90		
1.50	0.00	ND	0.00	ND	ND	ND		
<b>Monitor Used:</b>		Q-RAE			GA 2000			

**Bore No.:** Epping 4  
**GPS (GDA 94)** 324515 E  
 5831059 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	16/10/2008		28/10/2008		21/11/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.40	Hospital 300m	Some trees closer to landfill
0.50	0.00	20.90	0.00	20.40	0.00	20.10		
0.75	0.00	20.90	0.00	20.40	0.00	19.70		
1.00	0.00	20.90	0.00	20.40	0.00	19.60		
1.25	0.00	20.90	0.00	20.40	0.00	19.50		
1.50	0.00	20.90	0.00	ND	0.00	19.50		
<b>Monitor Used:</b>		Q-RAE			GA 2000			

Note to tables: 'ND' denotes No Data

**Bore No.:** Epping 1H  
**GPS (GDA 94)** 324930 E  
 5830590 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	7/11/2008		10/11/2008		21/11/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.20	20.60	0.00	19.80	Hospital 300m	Some trees closer to landfill
0.50	0.00	20.90	0.20	20.70	0.00	19.90		
0.75	0.00	20.90	0.20	20.70	0.00	20.10		
1.00	0.00	20.90	0.20	20.80	0.00	19.50		
1.25	0.00	20.90	0.20	20.60	0.00	19.40		
1.50	0.00	20.90	0.20	20.70	0.00	19.60		
<b>Monitor Used:</b>		GA 2000						

**Bore No.:** Epping 2H  
**GPS (GDA 94)** 324767 E  
 5830688 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	7/11/2008		10/11/2008		21/11/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	21.00	0.20	20.70	0.00	16.40	Hospital 300m	Some trees closer to landfill
0.50	0.00	21.30	0.20	20.70	0.00	14.70		
0.75	0.00	21.50	0.20	20.60	0.00	14.00		
1.00	0.00	21.60	0.20	20.60	0.00	12.70		
1.25	0.00	21.60	0.20	20.60	0.00	12.20		
1.50	0.00	21.60	0.25	20.50	0.00	12.40		
<b>Monitor Used:</b>		GA 2000						

**Bore No.:** Epping 3H  
**GPS (GDA 94)** 324776 E  
 5830744 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation	
	7/11/2008		10/11/2008		21/11/2008				
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)			
0.25	0.00	21.10	0.35	20.60	0.00	20.30	Hospital 300m	Some trees closer to landfill	
0.50	0.00	21.20	0.25	20.50	0.00	20.20			
0.75	0.00	21.10	0.25	20.50	0.00	20.00			
1.00	0.00	21.10	0.30	20.50	0.00	19.50			
1.25	0.00	21.20	0.20	20.50	0.00	18.80			
1.50	0.00	21.20	0.25	20.60	0.00	18.10			
Monitor Used:		GA 2000							

**Bore No.:** Epping 4H  
**GPS (GDA 94)** 324780 E  
 5830833 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation	
	7/11/2008		10/11/2008		21/11/2008				
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)			
0.25	0.00	21.10	0.30	20.70	0.00	19.60	Hospital 300m	Some trees closer to landfill	
0.50	0.00	21.10	0.30	20.70	0.00	19.00			
0.75	0.00	21.10	0.30	20.70	0.00	18.90			
1.00	0.00	21.10	0.25	20.60	0.00	18.80			
1.25	0.00	21.10	0.30	20.60	0.00	18.60			
1.50	0.00	21.10	0.30	20.80	0.00	18.40			
Monitor Used:		GA 2000							

# GHD

Landfill: Grantville  
Licence No.: ES37130

Bore No.: BH1  
GPS (GDA 94): - Lat  
- Long

**Bore not established - Access to indicated site not possible**

Bore No.: BH2  
GPS (GDA 94): 38.42269 Lat  
145.5226 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	13/10/2008		15/10/2008		21/10/2008		29/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	0.00	0.00	17.40	0.00	ND	0.00	19.50	40-50m	No Dead Vegetation visible
0.50	0.00	0.00	0.00	17.30	0.00	ND	0.00	19.40		
0.75	0.00	0.00	0.00	17.20	0.00	ND	0.00	19.40		
1.00	0.00	0.00	0.00	16.70	0.15	ND	0.00	19.30		
1.25	0.00	0.00	0.00	16.40	0.15	ND	0.00	18.70		
1.50	0.00	0.00	0.00	16.10	0.15	ND	0.00	18.90		
Monitor Used:	Q-RAE									

Bore No.: BH3  
GPS (GDA 94): 38.42199 Lat  
145.52654 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	13/10/2008		15/10/2008		21/10/2008		29/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	19.60	0.00	17.90	0.00	ND	0.00	19.60	No Data Recorded	No Dead Vegetation visible
0.50	0.00	19.60	0.00	17.80	0.00	ND	0.00	19.40		
0.75	0.00	19.60	0.00	17.70	0.00	ND	0.00	19.40		
1.00	0.00	19.60	0.00	17.40	0.00	ND	0.00	18.90		
1.25	0.00	19.60	0.00	17.20	0.00	ND	0.00	18.50		
1.50	0.00	19.60	0.15	17.10	0.00	ND	0.15	18.10		
Monitor Used:	Q-RAE									

**Landfill:** Kilmore  
**Licence No.:** HS 1400

**Bore No.:** KL-BH1  
**GPS (GDA 94):** 55319985 E  
5871550 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	13/10/2008		17/10/2008				
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (%v/v)	Oxygen (%v/v)			
0.25	0.00	20.90	0.00	20.90	400m	3 dead trees 40m away	
0.50	0.00	20.90	0.00	20.90			
0.75	0.00	20.90	0.00	20.80			
1.00	0.00	20.90	0.00	20.80			
1.25	0.00	ND	0.00	20.90			
1.50	0.00	ND	0.00	20.90			
<b>Monitor Used:</b>		Q-RAE					

**Bore No.:** KL-BH2  
**GPS (GDA 94):** 55320130 E  
5871635 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	13/10/2008		17/10/2008**				
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (Final)	Oxygen (%) (Final)			
0.25	0.00	20.90	0.00	ND	800m to house	No Dead Vegetation visible	
0.50	0.00	20.70	0.00	ND			
0.75	0.00	20.40	0.00	ND			
1.00	0.00	20.90	0.00	ND			
1.25	0.00	ND	0.00	ND			
1.50	0.00	ND	0.00	ND			
<b>Monitor Used:</b>		Q-RAE					

\*\* Field staff present on this day called through the results to the project manager on the 17th and recorded results on the field sheet on return to the office

**Bore No.:** KL-BH3  
**GPS (GDA 94):** 55319918 E  
 5871841 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	13/10/2008		17/10/2008				
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (Final)	Oxygen (%) (Final)			
0.25	0.00	20.90	0.00	29.90	300m	Few dead trees	
0.50	0.00	20.70	0.00	29.90			
0.75	0.00	20.60	0.00	29.90			
1.00	0.00	20.90	0.00	29.90			
1.25	0.00	ND	0.00	29.90			
1.50	0.00	ND	0.00	29.90			
Monitor Used:		Q-RAE					

**Bore No.:** KL-BH4  
**GPS (GDA 94):** 55320014 E  
 5871842 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	13/10/2008		17/10/2008**				
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (Final)	Oxygen (%) (Final)			
0.25	0.00	20.90	0.00	ND	400m	Few dead trees	
0.50	0.00	20.90	0.00	ND			
0.75	0.00	20.90	0.00	ND			
1.00	0.00	20.90	0.00	ND			
1.25	0.00	ND	0.00	ND			
1.50	0.00	ND	0.00	ND			
Monitor Used:		Q-RAE					

\*\* Field staff present on this day called through the results to the project manager on the 17th and recorded results on the field sheet on return to the office

**Landfill:** Lyndhurst  
**Licence No.:** ES 511

**Bore No.:** LT-BH1  
**GPS (GDA 94):** 334769 E  
 5788214 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	15/10/2008		17/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.00	300m	No Dead Vegetation Recorded	
0.50	0.00	ND	0.00	19.30			
0.75	0.00	ND	0.00	19.10			
1.00	0.00	ND	0.00	19.00			
1.25	0.00	ND	0.00	ND			
1.50	0.00	ND	0.00	ND			
Monitor Used:		Q-RAE					

**Bore No.:** LT-BH2  
**GPS (GDA 94):** 344824 E  
 5788222 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		17/10/2008		18/11/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	2.75	19.30	1.00	19.30	100m N	No Data Recorded
0.50	0.00	ND	3.00	19.20	0.90	19.40		
0.75	0.00	ND	3.25	19.00	0.90	19.20		
1.00	0.00	ND	3.80	18.70	1.10	19.00		
1.25	0.00	ND	4.05	18.60	0.80	18.90		
1.50	0.00	ND	4.10	18.60	1.00	19.00		
Monitor Used:		Q-RAE			GA 2000			

**Bore No.:** LT-BH3  
**GPS (GDA 94):** 334447 E  
 5788078 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		17/10/2008		18/11/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	20.40	0.00	19.10	50m W	No Data Recorded
0.50	0.00	ND	0.00	19.60	0.00	19.00		
0.75	0.00	ND	0.00	19.40	0.00	19.30		
1.00	0.00	ND	0.00	19.10	0.00	18.90		
1.25	0.00	ND	0.15	19.00	0.00	18.30		
1.50	0.00	ND	0.15	18.90	0.00	18.60		
Monitor Used:	Q-RAE				GA 2000			

**Bore No.:** LT-BH4  
**GPS (GDA 94):** 344413 E  
 5787716 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		17/10/2008		18/11/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	19.70	0.10	20.00	70m W	No Data Recorded
0.50	0.00	ND	0.00	19.70	0.10	19.60		
0.75	0.00	ND	0.00	19.60	0.10	19.00		
1.00	0.00	ND	0.00	19.50	0.10	19.00		
1.25	0.00	ND	0.00	19.50	0.10	18.30		
1.50	0.00	ND	0.00	19.50	0.00	ND		
Monitor Used:	Q-RAE				GA 2000			

Note to tables: 'ND' denotes No Data



**Bore No.:** LT-BH5  
**GPS (GDA 94):** 344936 E  
 5787511 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	15/10/2008		17/10/2008		18/11/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	ND**	ND**	0.00	20.60	Adjacent to cow paddock - nearest house 1km	No Data Recorded
0.50	0.00	ND	ND**	ND**	0.00	20.20		
0.75	0.00	ND	ND**	ND**	0.00	20.20		
1.00	0.00	ND	ND**	ND**	0.00	20.10		
1.25	0.00	ND	ND**	ND**	0.00	20.10		
1.50	0.00	ND	ND**	ND**	0.00	20.00		
Monitor Used:		Q-RAE			GA 2000			

\*\* Note an equipment malfunction was encountered and no readings were recorded.

**Landfill:** Rye  
**Licence No.:** ES 453

**Bore No.:** R - BH1  
**GPS (GDA 94):** 38.39625 Lat  
 144.8515 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	23/10/2008		29/10/2008				
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.30	No Data Recorded	No Dead Vegetation visible	
0.50	0.00	ND	0.00	20.30			
0.75	0.00	ND	0.00	20.20			
1.00	0.00	ND	0.00	20.20			
1.25	0.00	ND	0.00	20.10			
1.50	0.00	ND	0.00	20.10			
Monitor Used:		Q-RAE					

**Bore No.:** R - BH2  
**GPS (GDA 94):** 38.39603 Lat  
 144.85549 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	29/10/2008		23/10/2008				
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	20.30	0.00	ND	No Data Recorded	No Dead Vegetation visible	
0.50	0.00	20.30	0.00	ND			
0.75	0.00	20.20	0.00	ND			
1.00	0.00	20.10	0.00	ND			
1.25	0.00	20.00	0.00	ND			
1.50	0.00	19.00	0.00	ND			
Monitor Used:		Q-RAE					

Note to tables: 'ND' denotes No Data

**Bore No.:** R - BH3  
**GPS (GDA 94):** 38.38772 Lat  
 144.85265 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	23/10/2008		29/10/2008				
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.30	No Data Recorded	No Dead Vegetation visible	
0.50	0.00	ND	0.00	20.20			
0.75	0.00	ND	0.00	20.10			
1.00	0.00	ND	0.00	20.10			
1.25	0.00	ND	0.00	20.10			
1.50	0.00	ND	0.00	20.00			
Monitor Used:		Q-RAE					

**Bore No.:** R - BH4  
**GPS (GDA 94):** 38.39041 Lat  
 144.85148 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	23/10/2008		29/10/2008				
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.40	No Data Recorded	No Dead Vegetation visible	
0.50	0.00	ND	0.00	20.40			
0.75	0.00	ND	0.00	20.30			
1.00	0.00	ND	0.00	20.20			
1.25	0.00	ND	0.00	20.20			
1.50	0.00	ND	0.00	20.20			
Monitor Used:		Q-RAE					

**Bore No.:** R - BH5  
**GPS (GDA 94):** 38.38768 Lat  
 144.85427 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		29/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	20.90	No Data Recorded	No Dead Vegetation visible
0.50	0.00	ND	0.00	20.90		
0.75	0.00	ND	0.00	20.90		
1.00	0.00	ND	0.00	20.90		
1.25	0.00	ND	0.00	20.90		
1.50	0.00	ND	0.00	20.90		
Monitor Used:	Q-RAE					

**Landfill:** Springvale  
**Licence No.:** ES109

**Bore No.:** SP-BH1  
**GPS (GDA 94):** 337066 E  
 5794873 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		21/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	20.9	0.00	20.6	25m	No Dead Vegetation visible
0.50	0.00	ND	0.00	20.6	0.00	20.5		
0.75	0.00	ND	0.00	20.5	0.00	20.4		
1.00	0.00	ND	0.00	20.5	0.00	20.3		
1.25	0.00	ND	0.00	20.5	0.00	10.7		
1.50	0.00	ND	0.00	ND	0.00	ND		
<b>Monitor Used:</b>		Q-RAE			GA 2000			

**Bore No.:** SP-BH2  
**GPS (GDA 94):** 337102 E  
 5795208 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		21/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	20.20	0.00	19.80	Aged care facility - fence 20-50m S	No Dead Vegetation visible
0.50	0.00	ND	0.00	20.20	0.00	19.70		
0.75	0.00	ND	0.00	20.00	0.00	19.70		
1.00	0.00	ND	0.00	20.00	0.00	16.60		
1.25	0.00	ND	0.00	19.80	0.00	ND		
1.50	0.00	ND	0.00	ND	0.00	ND		
<b>Monitor Used:</b>		Q-RAE			GA 2000			

**Bore No.:** SP-BH3  
**GPS (GDA 94):** 336571 E  
5796136 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	ND	ND	0.00	20.90	0.00	21.10	50m to N	No Dead Vegetation visible
0.50	ND	ND	0.00	20.90	0.00	21.10		
0.75	ND	ND	0.00	20.90	0.00	20.80		
1.00	ND	ND	0.00	20.90	0.00	10.80		
1.25	ND	ND	0.00	20.90	0.00	18.20		
1.50	ND	ND	0.00	20.90	0.00	17.10		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH4  
**GPS (GDA 94):** 336514 E  
5796084 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		20/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	ND	ND	0.00	20.90	0.00	20.00	No Data Recorded	No Dead Vegetation visible
0.50	ND	ND	0.00	20.90	0.00	10.70		
0.75	ND	ND	0.00	20.90	0.00	10.80		
1.00	ND	ND	0.00	20.90	0.00	10.50		
1.25	ND	ND	0.00	20.90	0.00	10.00		
1.50	ND	ND	0.00	20.90	0.00	18.80		
Monitor Used:	Q-RAE			GA 2000				

Note to tables: 'ND' denotes No Data

**Bore No.:** SP-BH5  
**GPS (GDA 94):** 236542 E  
5795526 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	20/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%) (Final)	Methane (% v/v)	Oxygen (%) (Final)		
0.25	0.00	20.90	0.00	20.80	0.00	20.00	Dwellings 200-300m N	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.80	0.00	20.40		
0.75	0.00	20.90	0.00	20.80	0.00	18.80		
1.00	0.00	20.90	0.00	18.40	0.00	18.00		
1.25	0.00	20.30	0.00	17.70	0.00	17.70		
1.50	0.00	19.70	0.00	17.50	0.00	17.30		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH6  
**GPS (GDA 94):** 336656 E  
5796005 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	21/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	0.00	39.00	5.10	61.40	1.60	Dwellings 20m to E	No Dead Vegetation visible
0.50	7.00	18.40	41.00	4.60	58.00	2.60		
0.75	10.00	17.40	42.00	4.40	52.20	3.60		
1.00	13.00	16.80	43.00	4.20	56.60	2.60		
1.25	0.00	ND	43.00	4.20	ND**	ND**		
1.50	0.00	ND	44.00	3.80	ND**	ND**		
Monitor Used:	Q-RAE			GA 2000				

High methane levels recorded at this bore were suspected to be caused by the large amounts of organic material in the soil surrounding. Further monitoring or investigation is recommended to better determine the source of the methane.

\*\* Please note unable to monitor from this depth due to water present in Bore.

**Bore No.:** SP-BH7  
**GPS (GDA 94):** 336591 E  
5794596 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	21/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%) (Final)	Methane (% v/v)	Oxygen (%) (Final)		
0.25	0.00	20.90	0.00	20.50	0.00	20.80	Residential 20m S	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.50	0.00	20.70		
0.75	0.00	20.90	0.00	20.50	0.00	20.50		
1.00	0.00	20.90	0.00	20.50	0.00	20.50		
1.25	0.00	ND	0.00	ND	0.00	ND		
1.50	0.00	ND	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH8  
**GPS (GDA 94):** 336387 E  
5794831 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	21/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.40	0.00	20.40	Residential 20m W	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.10	0.00	19.10		
0.75	0.00	20.90	0.00	19.20	0.00	18.80		
1.00	0.00	20.90	0.00	18.60	0.00	18.20		
1.25	0.00	20.90	0.00	18.30	0.00	18.00		
1.50	0.00	20.40	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE			GA 2000				



**Bore No.:** SP-BH9  
**GPS (GDA 94):** 336231 E  
 5795051 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	21/10/2008		29/10/2008				
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)			
0.25	0.00	20.90	0.00	20.70	30m W houses	Yes, to the east, on west border of the site	
0.50	0.00	20.90	0.00	20.40			
0.75	0.00	20.90	0.00	20.30			
1.00	0.00	20.40	0.00	20.10			
1.25	0.00	20.40	0.00	20.00			
1.50	0.00	20.30	0.00	18.70			
Monitor Used:		Q-RAE					

**Bore No.:** SP-BH10  
**GPS (GDA 94):** 336062 E  
 5795402 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	21/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.50	0.00	20.80	20m to house under construction	Dead Vegetation visible
0.50	0.00	20.90	0.00	20.50	0.00	21.00		
0.75	0.00	20.90	0.00	20.30	0.00	20.80		
1.00	0.00	20.90	0.00	20.10	0.00	20.80		
1.25	0.00	20.90	0.00	ND	0.00	ND		
1.50	0.00	ND	0.00	ND	0.00	ND		
Monitor Used:		Q-RAE			GA 2000			

Note to tables: 'ND' denotes No Data

**Bore No.:** SP-BH11  
**GPS (GDA 94):** 336026 E  
5795635 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	22/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.30	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.40		
0.75	0.00	20.90	0.00	20.90	0.00	20.30		
1.00	0.00	20.40	0.00	20.40	0.00	18.00		
1.25	0.00	ND	0.00	20.10	0.00	18.80		
1.50	0.00	ND	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH12  
**GPS (GDA 94):** 336658 E  
5795985 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	22/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.70	0.00	17.80	0.00	14.70	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.30	0.00	17.70	0.00	14.10		
0.75	0.00	19.90	0.00	13.50	0.00	12.40		
1.00	0.20	17.90	0.00	13.50	0.00	12.20		
1.25	0.00	ND	0.00	12.80	0.00	12.20		
1.50	0.00	ND	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH13  
**GPS (GDA 94):** 336666 E  
 5796001 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	22/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.60	0.00	18.80	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.50	0.00	15.40	0.00	17.80		
0.75	0.00	20.40	0.00	18.00	0.00	16.80		
1.00	0.00	20.30	0.00	17.40	0.00	16.50		
1.25	0.00	20.30	0.00	16.80	0.00	16.50		
1.50	0.00	ND	0.00	19.62	ND**	ND**		
Monitor Used:	Q-RAE			GA 2000				

\*\* Please note unable to monitor from this depth due to water present in Bore.

**Bore No.:** SP-BH14  
**GPS (GDA 94):** 337260 E  
 5795618 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.80	0.00	20.50	0.00	20.30	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.60	0.00	20.50	0.00	20.30		
0.75	0.00	20.60	0.00	20.50	0.00	20.30		
1.00	0.00	20.60	0.00	20.50	0.00	20.30		
1.25	0.00	20.50	0.00	20.40	0.00	20.10		
1.50	0.00	20.50	0.00	20.30	0.00	20.10		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH15  
**GPS (GDA 94):** 337129 E  
5795607 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.60	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.60		
0.75	0.00	20.90	0.00	20.90	0.00	20.50		
1.00	0.00	20.90	0.00	20.50	0.00	ND		
1.25	0.00	20.90	0.00	20.50	0.00	20.40		
1.50	0.00	20.90	0.00	20.90	ND**	ND**		
Monitor Used:	Q-RAE			GA 2000				

\*\* Please note unable to monitor from this depth due to water present in Bore.

**Bore No.:** SP-BH16  
**GPS (GDA 94):** 336829 E  
5796237 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.90	0.00	20.80	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.90	0.00	20.90	0.00	20.80		
0.75	0.00	20.90	0.00	20.90	0.00	20.70		
1.00	0.00	20.90	0.00	20.90	0.00	20.60		
1.25	0.00	20.90	0.00	20.60	0.00	20.30		
1.50	0.00	20.90	0.00	ND	0.00	ND		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH17  
**GPS (GDA 94):** 336957 E  
 5796239 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		23/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.60	0.00	20.90	0.00	20.80	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.60	0.00	20.90	0.00	20.60		
0.75	0.00	20.50	0.00	20.50	0.00	20.20		
1.00	0.00	20.40	0.00	20.30	0.00	18.80		
1.25	0.00	20.30	0.00	20.30	0.00	18.70		
1.50	0.00	20.30	0.00	20.10	0.00	18.70		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH18  
**GPS (GDA 94):** 337279 E  
 5796230 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.90	0.00	20.40	0.00	20.80	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.60	0.00	20.40	0.00	20.80		
0.75	0.00	20.60	0.00	20.30	0.00	20.80		
1.00	0.00	20.50	0.00	20.20	0.00	20.80		
1.25	0.00	20.50	0.00	20.30	0.00	20.20		
1.50	0.00	20.30	0.00	20.00	0.00	20.00		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH19  
**GPS (GDA 94):** 337312 E  
 5796056 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.20	0.00	20.90	0.00	20.80	20m to house under construction	No Dead Vegetation visible
0.50	0.00	18.70	0.00	20.90	0.00	20.80		
0.75	0.00	18.70	0.00	10.30	0.00	19.70		
1.00	0.00	18.40	0.00	10.10	0.00	19.70		
1.25	0.00	18.40	0.00	10.10	0.00	19.60		
1.50	0.00	18.40	0.00	17.00	0.00	19.60		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH20  
**GPS (GDA 94):** 337287 E  
 5795730 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	23/10/2008		29/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.00	20.70	0.00	20.90	0.00	21.00	20m to house under construction	No Dead Vegetation visible
0.50	0.00	20.70	0.00	20.50	0.00	20.80		
0.75	0.00	20.70	0.00	20.50	0.00	20.80		
1.00	0.00	20.70	0.00	20.50	0.00	20.60		
1.25	0.00	20.60	0.00	20.50	0.00	20.60		
1.50	0.00	20.60	0.00	20.50	0.00	20.40		
Monitor Used:	Q-RAE			GA 2000				

**Bore No.:** SP-BH21  
**GPS (GDA 94):** 337287 E  
 5795730 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	30/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	12.80	6.30	28.80	10.80	20m to house under construction	No Dead Vegetation visible
0.50	8.60	17.90	30.60	10.60		
0.75	11.50	17.10	37.50	8.60		
1.00	10.30	16.80	34.50	8.30		
1.25	9.40	17.40	ND**	ND**		
1.50	0.00	ND	ND**	ND**		
Monitor Used:		GA 2000				

\*\* Please note unable to monitor from this depth due to water present in Bore.

**Bore No.:** SP-BH22  
**GPS (GDA 94):** 337287 E  
 5795730 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	30/10/2008		31/10/2008			
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)		
0.25	0.20	20.20	0.00	18.80	20m to house under construction	No Dead Vegetation visible
0.50	0.20	20.20	0.00	18.30		
0.75	0.20	20.30	0.00	18.00		
1.00	0.20	20.10	0.00	18.80		
1.25	0.20	19.90	0.00	18.60		
1.50	0.20	19.80	0.00	18.30		
Monitor Used:		GA 2000				

**Bore No.:** CL Clark Road Residences  
**GPS (GDA 94):** E  
 N

Sample Location	Results		Nearest Sensitive Land Use	Dead Vegetation
	3/11/2008			
	Methane (% v/v)	Oxygen (% v/v)		
Under house	0.20	20.60	No Data Recorded	No Dead Vegetation visible
Vent NW Corner	0.20	20.60		
Southern Shed	0.20	20.60		
Northern Shed	0.20	20.60		
Monitor Used:	GA 2000			

Note sample locations refer to in house readings: Hatch under house, vent at NW corner house, southern shed and northern shed



**Landfill:** Wantirna South  
**Licence No.:** EM 28913

**Bore No.:** WS-BH1  
**GPS (GDA 94):** 343239 E  
 5805454 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	17/10/2008		24/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	20.90	15m S	No Dead Vegetation visible	
0.50	0.00	ND	0.00	20.90			
0.75	0.00	ND	0.00	20.90			
1.00	0.00	ND	0.00	19.90			
1.25	0.00	ND	0.00	19.80			
1.50	0.00	ND	0.00	19.40			
Monitor Used:		Q-RAE					

**Bore No.:** WS-BH2  
**GPS (GDA 94):** 343378 E  
 5805462 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation	
	17/10/2008		24/10/2008				
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	19.10	20m S	No Dead Vegetation visible	
0.50	0.00	ND	0.00	18.70			
0.75	0.00	ND	0.00	18.70			
1.00	0.00	ND	0.25	11.70			
1.25	0.00	ND	0.25	11.20			
1.50	0.00	ND	0.00	ND			
Monitor Used:		Q-RAE					

**Bore No.:** WS-BH3  
**GPS (GDA 94):** 343477 E  
 5805546 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		24/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.10	20.20	3m from residential	No Dead Vegetation visible
0.50	0.00	ND	0.10	20.00		
0.75	0.00	ND	0.10	20.00		
1.00	0.00	ND	0.05	20.00		
1.25	0.00	ND	0.05	20.00		
1.50	0.00	ND	0.10	19.80		
Monitor Used:	Q-RAE					

**Bore No.:** WS-BH4  
**GPS (GDA 94):** 343476 E  
 5805697 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		24/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	20.70	5m W of residential fence	No Dead Vegetation visible
0.50	0.00	ND	0.00	17.60		
0.75	0.00	ND	0.00	17.10		
1.00	0.00	ND	0.00	16.20		
1.25	0.00	ND	0.00	14.40		
1.50	0.00	ND	0.00	14.30		
Monitor Used:	Q-RAE					

**Bore No.:** WS-BH5  
**GPS (GDA 94):** 343434 E  
 5805924 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		24/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	19.70	30m N to residential	No Dead Vegetation visible
0.50	0.00	ND	0.00	19.70		
0.75	0.00	ND	0.00	ND		
1.00	0.00	ND	0.00	19.50		
1.25	0.00	ND	0.00	19.30		
1.50	0.00	ND	0.00	19.20		
Monitor Used:		Q-RAE				

**Bore No.:** WS-BH6  
**GPS (GDA 94):** 342173 E  
 5806137 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation
	17/10/2008		27/10/2008			
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	20.90	No Data Recorded	No Dead Vegetation visible
0.50	0.00	ND	0.00	20.20		
0.75	0.00	ND	0.00	20.20		
1.00	0.00	ND	0.00	ND		
1.25	0.00	ND	0.00	20.10		
1.50	0.00	ND	0.00	20.10		
Monitor Used:		Q-RAE				

**Landfill:** Yallourn North  
**Licence No.:** LS118

**Bore No.:** YN-BH1  
**GPS (GDA 94):** 38.1537 Lat  
 146.34999 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation
	13/10/2008		15/10/2008		21/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.00	17.80	0.00	ND**	50m	Some trees near landfill
0.50	0.00	ND	0.00	17.70	0.00	ND**		
0.75	0.00	ND	0.00	17.80	0.00	ND**		
1.00	0.00	ND	0.00	17.40	0.00	ND**		
1.25	0.00	ND	0.00	17.30	0.00	ND**		
1.50	0.00	ND	0.00	17.30	0.00	ND**		
Monitor Used:	Q-RAE							

\*\* - Equipment Malfunction

**Bore No.:** YN-BH2  
**GPS (GDA 94):** 38.15451 Lat  
 146.35095 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation
	13/10/2008		15/10/2008		21/10/2008		28/10/2008			
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)		
0.25	0.00	ND	0.15	11.20	0.00	ND**	0.00	17.10	50m	Some trees near landfill
0.50	0.00	ND	0.15	11.10	0.00	ND**	0.00	17.10		
0.75	0.00	ND	0.15	10.90	0.00	ND**	0.00	16.9		
1.00	0.00	ND	0.15	10.50	0.00	ND**	0.00	16.2		
1.25	0.00	ND	0.15	10.10	0.00	ND**	0.00	15.60		
1.50	0.00	ND	0.15	9.90	0.00	ND**	0.00	15.50		
Monitor Used:	Q-RAE									

\*\* - Equipment Malfunction

**Bore No.:** YN-BH3  
**GPS (GDA 94):** 38.15511 Lat  
 146.35018 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation	
	13/10/2008		15/10/2008		21/10/2008				
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	17.50	0.00	ND**	50m	Some trees near landfill	
0.50	0.00	ND	0.00	17.50	0.00	ND**			
0.75	0.00	ND	0.00	17.50	0.00	ND**			
1.00	0.00	ND	0.00	17.40	0.00	ND**			
1.25	0.00	ND	0.00	17.40	0.00	ND**			
1.50	0.00	ND	0.00	17.40	0.00	ND**			
Monitor Used :		Q-RAE							

\*\* - Equipment Malfunction

**Bore No.:** YN-BH4  
**GPS (GDA 94):** 38.15259 Lat  
 146.34925 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation	
	13/10/2008		15/10/2008		21/10/2008		28/10/2008				
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)			
0.25	0.00	ND	0.00	19.30	0.00	ND**	0.00	19.30	50m	Some trees near landfill	
0.50	0.00	ND	0.15	19.20	0.00	ND**	0.00	19.30			
0.75	0.00	ND	0.15	19.10	0.00	ND**	0.00	19.30			
1.00	0.00	ND	0.15	19.00	0.00	ND**	0.00	19.20			
1.25	0.00	ND	0.15	18.90	0.00	ND**	0.00	19.10			
1.50	0.00	ND	0.10	19.10	0.00	ND**	0.00	19.10			
Monitor Used:		Q-RAE									

\*\* - Equipment Malfunction



## 4. References

EPA Vic., 2001, *Best Practice Environmental Management (Siting, Design, Operation and Rehabilitation of Landfills)*, Publication No. 788, (October 2001).



Appendix A  
Programme Schedule



WEEK 1				
MONDAY – 13/10/2008	TUESDAY – 14/10/2008	WEDNESDAY – 15/10/2008	THURSDAY – 16/10/2008	FRIDAY – 17/10/2008
<p>Team 1: (Morwell Office)</p> <p><b>Bore Establishment:</b></p> <p>Yallourn North (LS118): 4 bores @ 1.5 m. Grantville (ES37130): 2 bores @ 1.2 &amp; 1.35 m respectively</p>	<p>Team 1: (Morwell Office)</p> <p><b>Bore Establishment</b></p> <p>Bairnsdale (LS169): 6 bores established @ 0.8, 0.9, (2x) 1.2 and (2x) 1.5m as per Plan.</p>	<p>Team 1: (Morwell Office)</p> <p><b>Bore Sampling</b></p> <p>Yallourn North (LS118): 4 bores tested. Grantville (ES37130): 2 bores tested. Bairnsdale (LS169): 6 bores tested.</p>	<p>Team 1: (Morwell Office)</p> <p><b>Team finished initial bore establishment and sampling as required for Grantville, Yallourn North and Bairnsdale.</b></p>	<p>Team 1: (Morwell Office)</p> <p><b>Team finished initial bore establishment and sampling as required for Grantville, Yallourn North and Bairnsdale.</b></p>
<p>Team 2: (Melbourne Office)</p> <p><b>Bore Establishment:</b></p> <p>Clayton South 'Cluster': Drilled first four holes as per Sampling Plan to 1.5 m – all collapsed with free-flowing sand.</p>	<p>Team 2: (Melbourne Office)</p> <p><b>Bore Establishment</b></p> <p>Clayton South 'Cluster': 5 bores established as per Sampling Plan to date.</p>	<p>Team 2: (Melbourne Office)</p> <p><b>Bore Establishment and Sampling</b></p> <p>Clayton South 'Cluster': 11 bores established to date</p>	<p>Team 2: (Melbourne Office)</p> <p><b>Bore Establishment and Sampling</b></p> <p>Clayton South 'Cluster': 14 bores established to date with plans for another 2-5 Friday.</p>	<p>Team 2: (Melbourne Office)</p> <p><b>Bore Establishment and Sampling</b></p> <p>Clayton South 'Cluster': 19 bores have now been established.</p>
<p>Team 3: (Melbourne Office)</p> <p><b>Bore Establishment:</b></p> <p>Dingley (ES146): One (location) hole collapsed at 0.7 m with free-flowing sand. Another location had auger refusal at 0.7 due to compacted dried silt.</p>	<p>Team 3: (Melbourne Office)</p> <p><b>Bore Establishment</b></p> <ul style="list-style-type: none"> <li>» Dingley (ES146): 5 bores established as per Plan. 4x 1.5m, and 1x 1.0m.</li> <li>» Lyndhurst (ES511): No bores yet established, but team worked with service locator personnel to check each of the locations to be drilled Wednesday before finishing for the day.</li> </ul>	<p>Team 3: (Melbourne Office)</p> <p><b>Bore Establishment and Sampling</b></p> <p>Lyndhurst (ES511): 5 bores were established, 2 to the North, 2 to the West (all at 1.5m) and 1 to the South (at 1m).</p>	<p>Team 3: (Melbourne Office)</p> <p><b>Bore Establishment and Sampling</b></p> <p>Wantirna (EM 28913): 5 bores were established to the south and east of the landfill with one proposed for the north tomorrow. All were established between 1.2-1.5 m.</p>	<p>Team 3: (Melbourne Office)</p> <p><b>Bore Establishment and Sampling</b></p> <ul style="list-style-type: none"> <li>» Wantirna (EM28913): Another bore was established to the north, making a total of 6.</li> <li>» Lyndhurst (ES511): All 5 bores were monitored.</li> <li>» Springvale (ES109): sampling locations were changed by EPA. 5 of 6 new locations were surveyed for services, 1 is still pending. 2 bores were established.</li> </ul>
<p>Team 4: (Geelong Office)</p> <p><b>Bore Establishment</b></p> <ul style="list-style-type: none"> <li>» Kilmore (HS1400): 4 bores @ 1.1 – 1.2 m as per Plan.</li> <li>» Castlemaine (ES24499): No bores able to be established – will require a rock corer to proceed.</li> </ul>	<p>Team 4: (Geelong Office)</p> <p><b>Bore Establishment</b></p> <p>Ararat (HS311): Some access issues around landfill boundary. One bore was attempted on road reserve 50 m E from landfill entrance/gate, but at ~0.4 m strong odours were noted, and as per instructions team ceased drilling and used methane monitor, where a reading of 7-8% CH<sub>4</sub> was detected (i.e. within explosive range).</p> <p>2 more bores were established.</p>	<p>Team 4: (Geelong Office)</p> <p><b>Bore Establishment and Sampling</b></p> <p>Epping (ES177): 3 bores established.</p>	<p>Team 4: (Geelong Office)</p> <p><b>Bore Establishment and Sampling</b></p> <ul style="list-style-type: none"> <li>» Epping (ES177): 5 bores now established. 2 established today.</li> <li>» Campbellfield (ES 506): 2 bores established</li> </ul>	<p>Team 4: (Geelong Office)</p> <p><b>Bore Establishment and Sampling</b></p> <p>Castlemaine (ES24499): 4 bores established with drill rig at 1.5m.</p>





**WEEK 2**

MONDAY – 20/10/2008	TUESDAY – 21/10/2008	WEDNESDAY – 22/10/2008	THURSDAY – 23/10/2008	FRIDAY – 24/10/2008
<p>Team 1: (Morwell Office) Bores re-sampled at Bairnsdale</p>	<p>Team 1: (Morwell Office) Bore Sampling Bores re-sampled at Grantville and Yallourn.</p>	<p>Team 1: (Morwell Office) <b>Status:</b> No further action for Grantville, Yallourn or Bairnsdale, until directed otherwise by EPA. Team to establish bores at Rye tomorrow (Thursday).</p>	<p>Team 1: (Morwell Office) 5 bores were established at Rye in accordance with the sampling plan to 1.5m</p>	<p>Team 1: (Morwell Office) <b>Team Demobilised (at present)</b></p>
<p>Team 2: BM (Melbourne Office) Clayton South 'Cluster' of 19 bores was sampled, along with 3 of the new Springvale 'cluster' bores.</p>	<p><b>Team Demobilised.</b></p>	<p><b>Team Demobilised.</b></p>	<p><b>Team Demobilised.</b></p>	<p><b>Team Demobilised.</b></p>
<p>Team 3: (Melbourne Office) <b>Bore Establishment</b> Springvale (ES109): 3 new bores established, and site clearance obtained for another 6</p>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b> Springvale (ES109): 4 new bores established. One bore ~ 7m from residential boundary had 13% v/v CH<sub>4</sub> upon establishment This result was reported to EPA.</p>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b> Springvale 'cluster': 2 bores established near houses E side of Clark Road, 5% LEL (i.e. 0.25% vol CH<sub>4</sub>). Another new bore established at Westall Road. Site locations and clearance obtained for additional bores to be established at the Clayton and Springvale clusters.</p>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b> Springvale 'cluster': 8 bores established. Sampling run conducted through the bores established in the Clayton and Springvale clusters to date. Site locations and clearance obtained for additional bores to be established at the Clayton cluster.</p>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b> Clayton 'cluster': 3 bores established. Sampling run conducted of bores not sampled yesterday in the Clayton 'cluster'. 5 bores sampled at Wantirna South (one bore was not accessible due to locked gate and arrangements have been made to sample on Monday).</p>
<p>Team 4: (Geelong Office) Castlemaine (ES24499): 4 bores sampled.</p>	<p>Team 4: (Geelong Office). Campbellfield (ES506): 1 bore established SW corner of landfill adjacent to houses</p>	<p>Team 4: (Geelong Office). <b>Bore and Sampling</b> Campbellfield (ES506): The bore established SW corner of landfill adjacent to houses was re-sampled</p>	<p>Team 4: (Geelong Office). <b>Team Demobilised.</b></p>	<p>Team 4: (Geelong Office). <b>Team Demobilised.</b></p>



**WEEK 3**

<b>MONDAY – 27/10/2008</b>	<b>TUESDAY – 28/10/2008</b>	<b>WEDNESDAY – 29/10/2008</b>	<b>THURSDAY – 30/10/2008</b>	<b>FRIDAY 31/10/2008</b>
<p>Team 1: (Morwell Office) <b>Team Demobilised (at present)</b></p>	<p>Team 1: (Morwell Office) Bores monitored at Yallourn and Bairnsdale.</p>	<p>Team 1: (Morwell Office) Bores monitored at Grantville and Rye</p>	<p>Team 1: (Morwell Office) <b>Team Demobilised</b></p>	<p>Team 1: (Morwell Office) <b>Team Demobilised</b></p>
<p>Team 2: (Melbourne Office) Team to be re-mobilised Wednesday to assist Team 3</p>	<p>Team 2: (Melbourne Office) A hand auger, motorised auger, vehicle, GPS and methane monitor has been organised for the team. They will also pick up a new supply of standpipes (20x) and caps tomorrow for both teams for the additional bores.</p>	<p>Team 2: (Melbourne Office) Team 2 assisted Team 3 in bore establishment and sampling. See Team 3 report below.</p>	<p>Team 2: (Melbourne Office) <b>Team Demobilised</b></p>	<p>Team 2: (Melbourne Office) <b>Team Demobilised</b></p>
<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b></p> <ul style="list-style-type: none"> <li>» Clayton 'cluster': 1 bore established in Ryans Road</li> <li>» 6 locations cleared for services.</li> <li>» 1 bore (BH#6) sampled at Wantirna South</li> <li>» More slotted bore pipes and caps ordered (20x), more sand obtained from suppliers</li> </ul>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling - Clayton area</b></p> <p>3 bores established along residential fence-line adjoining Heatherton Park.</p> <p>A number of locations were cleared around Grange and Heatherton Roads for tomorrow.</p>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b></p> <ul style="list-style-type: none"> <li>» 8 new bores established as directed in Clayton area. One location had bore refusal due to waste 'road base', another 3 attempts in this area all hit the same waste material.</li> <li>» Springvale bores were re-sampled at EPA's request. A total of 16 were re-sampled</li> </ul>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b></p> <ul style="list-style-type: none"> <li>» 30 Bores were sampled in the Clayton Cluster.</li> <li>» 2 bores established at Springvale in the vicinity of the Clark Rd landfill</li> </ul>	<p>Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b></p> <p>2 bores were established in Springvale and outstanding sampling from Thursday was completed.</p>
<p>Team 4: (Geelong Office). <b>Team Demobilised.</b></p>	<p>Team 4: (Geelong Office) Bores monitored at Epping and Campbellfield.</p>	<p>Team 4: (Geelong Office). <b>Team Demobilised.</b></p>	<p>Team 4: (Geelong Office). <b>Team Demobilised.</b></p>	<p>Team 4: (Geelong Office). <b>Team Demobilised</b></p>



**WEEK 4**

<b>MONDAY – 3/11/2008</b>	<b>TUESDAY – 4/11/2008</b>	<b>WEDNESDAY – 5/11/2008</b>	<b>THURSDAY – 6/11/2008</b>	<b>FRIDAY – 7/11/2008</b>
Team 1: (Morwell Office) <b>Team Demobilised</b>	Public Holiday – Melbourne Cup	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>
Team 2: (Melbourne Office) <b>Team Demobilised</b>	Public Holiday – Melbourne Cup	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>
Team 3: (Melbourne Office) <b>Bore Establishment and Sampling</b> » Outstanding bores at the Clayton site were sampled using the GA2000 » Aided EPA officer in taking measurements at a residence on Clarke Rd. No methane readings were recorded.	Public Holiday – Melbourne Cup	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) Sampling of bores established at Clayton on previous Friday.	Team 3: (Melbourne Office) <b>Team Demobilised.</b>
Team 4: (Geelong Office). <b>Team Demobilised.</b>	Public Holiday – Melbourne Cup	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). Establishment of 4 bores at Epping Hospital.



**WEEK 5**

<b>MONDAY – 10/11/2008</b>	<b>TUESDAY – 11/11/2008</b>	<b>WEDNESDAY – 12/11/2008</b>	<b>THURSDAY – 13/11/2008</b>	<b>FRIDAY – 14/11/2008</b>
Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>
Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>
Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) <b>Team Demobilised.</b>
Team 4: (Geelong Office). Further round of sampling at new bores established in Epping surrounding the hospital.	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>



WEEK 6				
MONDAY – 17/11/2008	TUESDAY – 18/11/2008	WEDNESDAY – 19/11/2008	THURSDAY – 20/11/2008	FRIDAY – 21/11/2008
Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>
Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b> <b>EPPING</b>
Team 3: (Melbourne Office) Monitoring of bores in Clayton area	Team 3: (Melbourne Office) Monitoring of remaining bores Clayton and monitoring at Lyndhurst	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) Monitoring of bores at Epping to include follow up for bores established on 7 November.
Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>

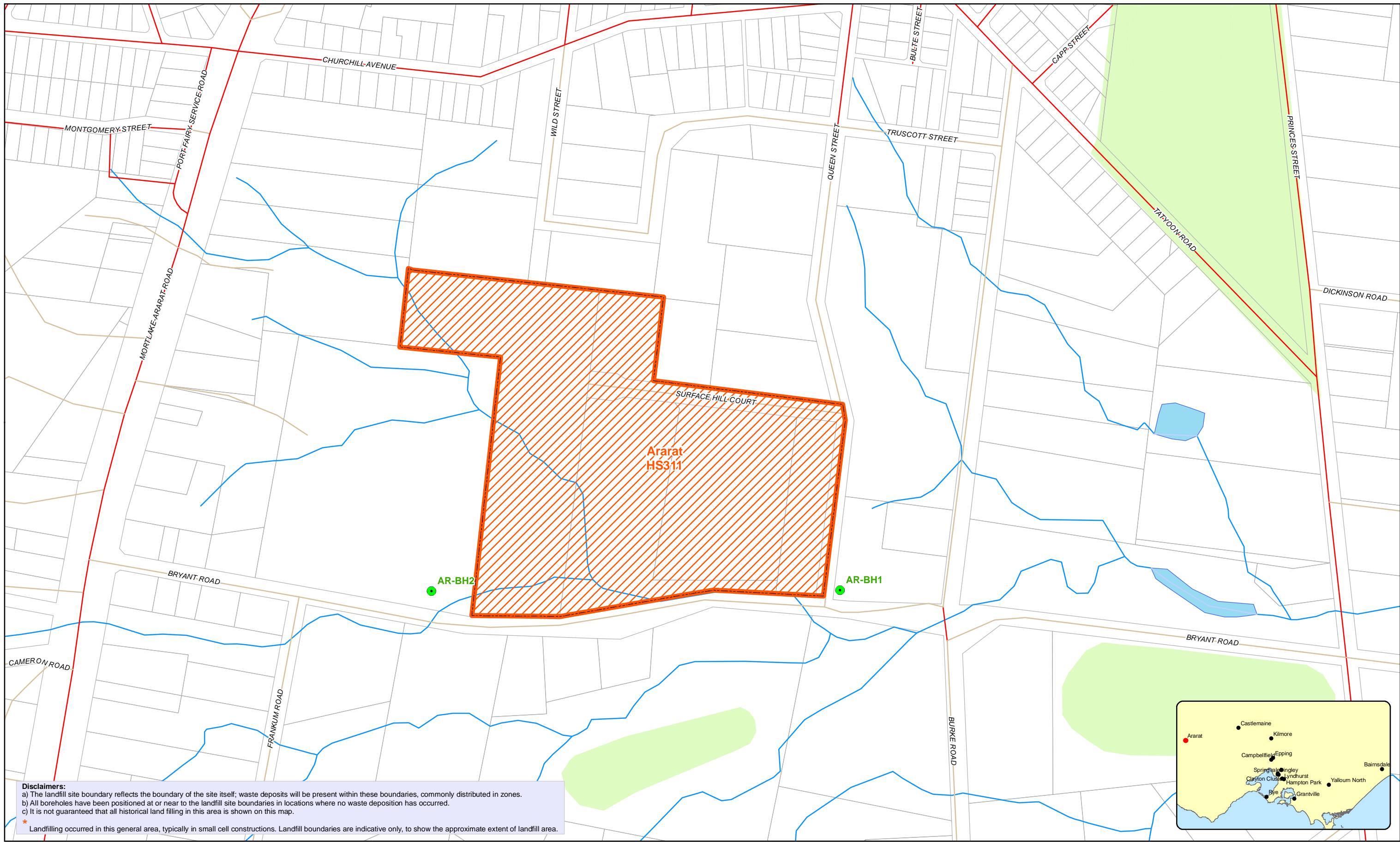


**WEEK 7**

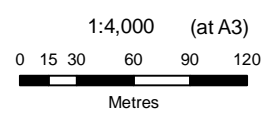
<b>MONDAY – 24/11/2008</b>	<b>TUESDAY – 25/11/2008</b>	<b>WEDNESDAY – 26/11/2008</b>	<b>THURSDAY – 27/11/2008</b>	<b>FRIDAY – 28/11/2008</b>
Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>	Team 1: (Morwell Office) <b>Team Demobilised</b>
Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>	Team 2: (Melbourne Office) <b>Team Demobilised</b>
Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) Service Sweep in Clayton area	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) <b>Team Demobilised.</b>	Team 3: (Melbourne Office) <b>Team Demobilised.</b>
Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>	Team 4: (Geelong Office). <b>Team Demobilised.</b>



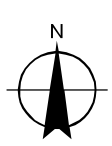
Appendix B  
Bore and Service Sweep Locations



**Disclaimers:**  
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Map Projection: Transverse Mercator  
 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994



Legend	
Borehole	Sealed Road (Arterial & Local)
Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
Land Fill Site	Unsealed Walking/Bike Trail
River	Channel / Drain
Stream	Connector
Lake	Parcel
Salt Lake	Pondage
Watercourse Area	Wetland / Swamp
Flat	Recreation/Sporting Area
Camping/Caravan Park	Cemetery
Carpark	Landmark
Showgrounds	



CLIENTS | PEOPLE | PERFORMANCE

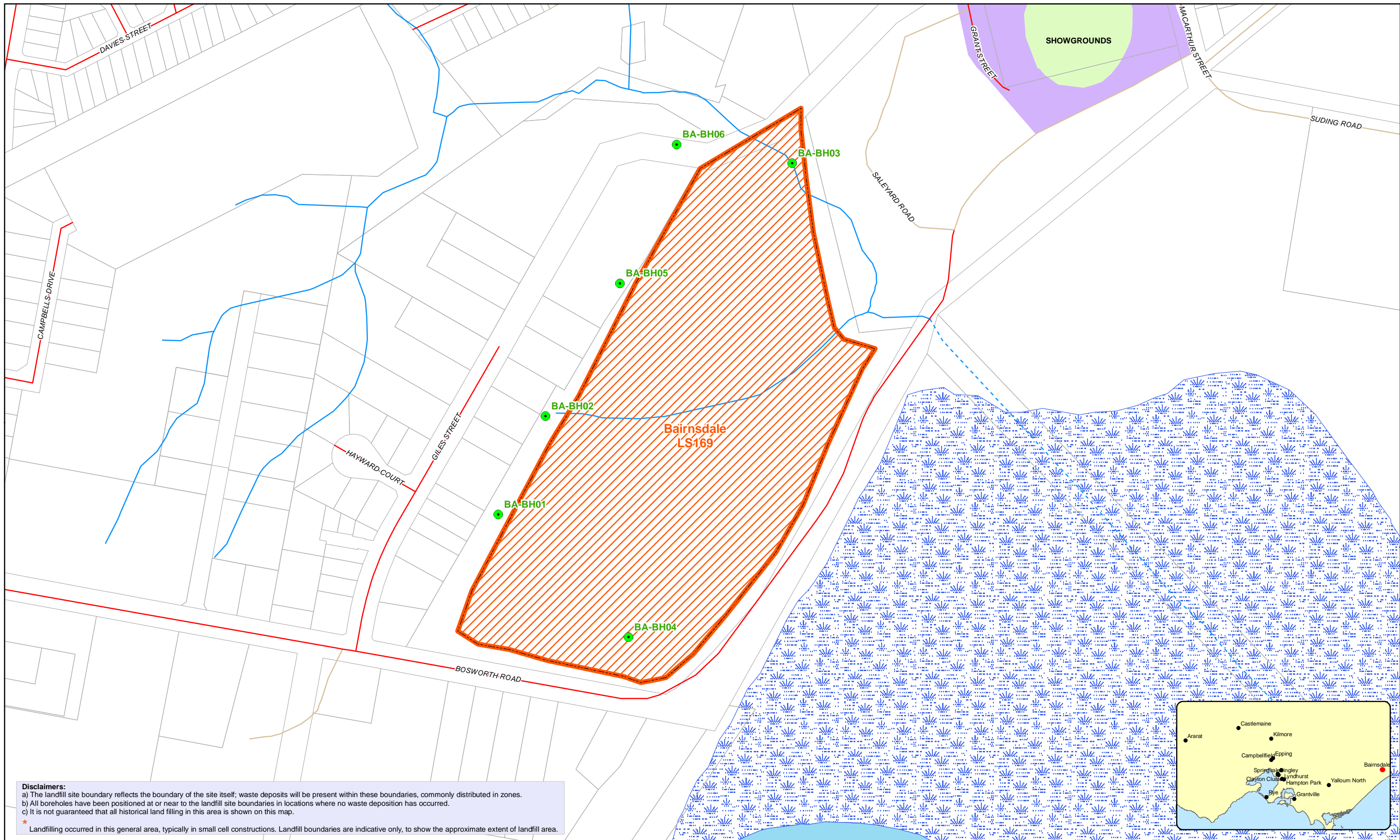
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 Preliminary Landfill Screening Project

**Bore Locations**  
 Ararat  
 Licence No. HS311

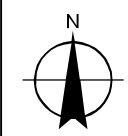
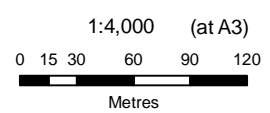
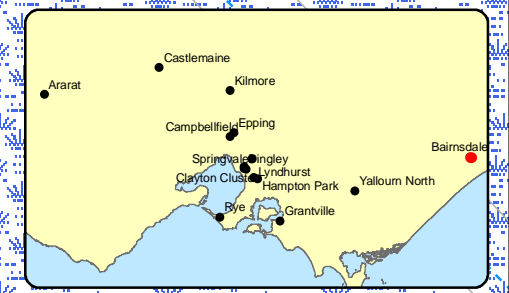
Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Appendix B**





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Legend	
<span style="color: green;">●</span> Borehole	<span style="border-bottom: 1px solid red;">    </span> Sealed Road (Arterial & Local)
<span style="color: red;">✗</span> Refused Borehole	<span style="border-bottom: 1px solid orange;">    </span> Unsealed Road
<span style="border-bottom: 1px solid green;">    </span> Freeway	<span style="border-bottom: 1px dashed orange;">    </span> Unsealed Track
<span style="border-bottom: 1px solid red;">    </span> Highway	<span style="border-bottom: 1px dashed red;">    </span> Sealed Walking/Bike Trail
<span style="border: 1px solid orange; padding: 2px;">    </span> Land Fill Site	<span style="border-bottom: 1px dashed orange;">    </span> Unsealed Walking/Bike Trail
<span style="color: blue;">—</span> River	<span style="border-bottom: 1px solid blue;">    </span> Connector
<span style="color: blue;">—</span> Stream	<span style="border-bottom: 1px solid grey;">    </span> Parcel
<span style="border-bottom: 1px dashed blue;">    </span> Channel / Drain	<span style="background-color: lightblue; border: 1px solid blue;">    </span> Lake
<span style="border-bottom: 1px solid blue;">    </span> Flat	<span style="background-color: lightblue; border: 1px solid blue;">    </span> Salt Lake
<span style="background-color: lightblue; border: 1px solid blue;">    </span> Pondage	<span style="background-color: lightblue; border: 1px solid blue;">    </span> Watercourse Area
<span style="background-color: lightblue; border: 1px solid blue;">    </span> Wetland / Swamp	<span style="background-color: lightblue; border: 1px solid blue;">    </span> Cemetery
<span style="background-color: lightblue; border: 1px solid blue;">    </span> Recreation/Sporting Area	<span style="background-color: lightblue; border: 1px solid blue;">    </span> Landmark
<span style="background-color: lightblue; border: 1px solid blue;">    </span> Showgrounds	<span style="background-color: lightblue; border: 1px solid blue;">    </span> Camping/Caravan Park
	<span style="background-color: lightblue; border: 1px solid blue;">    </span> Carpark

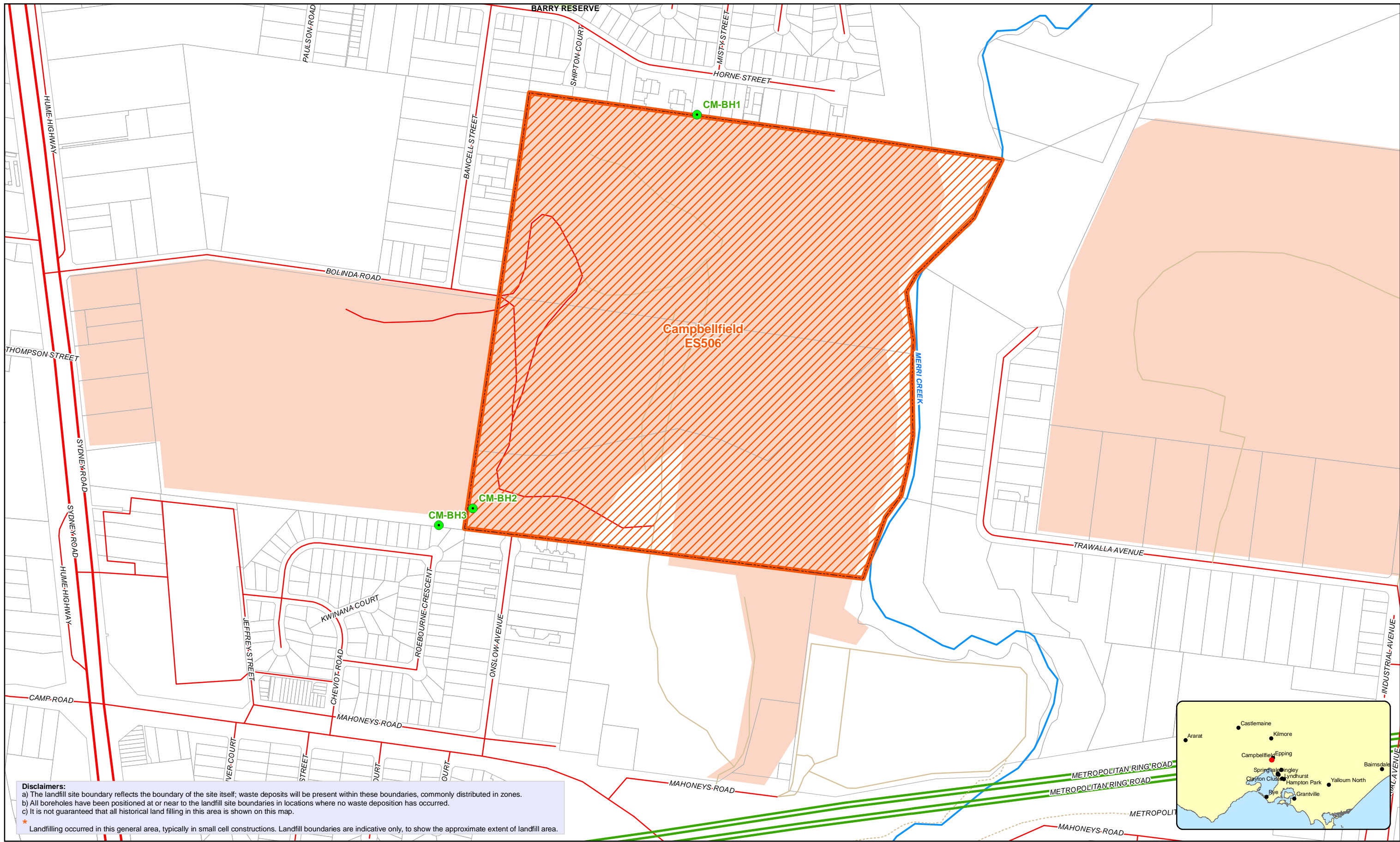


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 Preliminary Landfill Screening Project

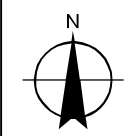
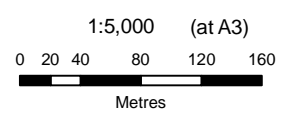
Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
**Bairnsdale** Licence No. **LS169**

**Appendix B**



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Legend	
Borehole	Sealed Road (Arterial & Local)
Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
Land Fill Site	Unsealed Walking/Bike Trail
River	Channel / Drain
Stream	Connector
Lake	Parcel
Salt Lake	Pondage
Watercourse Area	Wetland / Swamp
Flat	Camping/Caravan Park
Pondage	Carpark
Recreation/Sporting Area	Cemetery
Showgrounds	Landmark

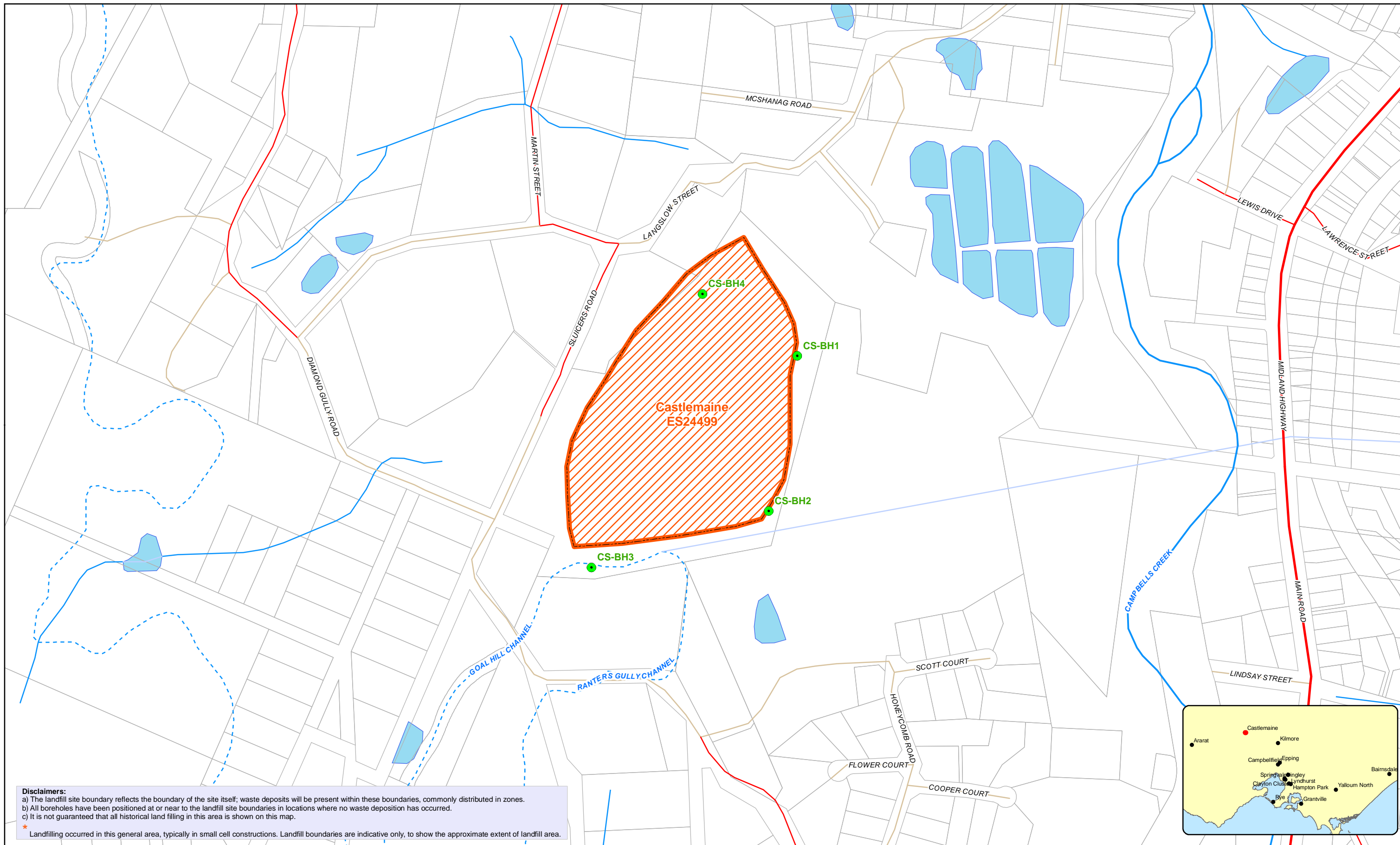


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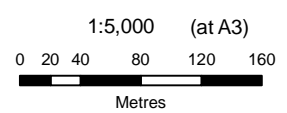
Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
 Campbellfield Licence No. ES506

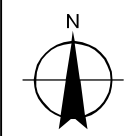
**Appendix B**



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 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994



Legend	
Borehole	Sealed Road (Arterial & Local)
Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
Land Fill Site	Unsealed Walking/Bike Trail
River	Channel / Drain
Stream	Connector
Lake	Parcel
Salt Lake	Pondage
Watercourse Area	Wetland / Swamp
Flat	Flat
Camping/Caravan Park	Cemetery
Carpark	Landmark
Recreation/Sporting Area	Showgrounds



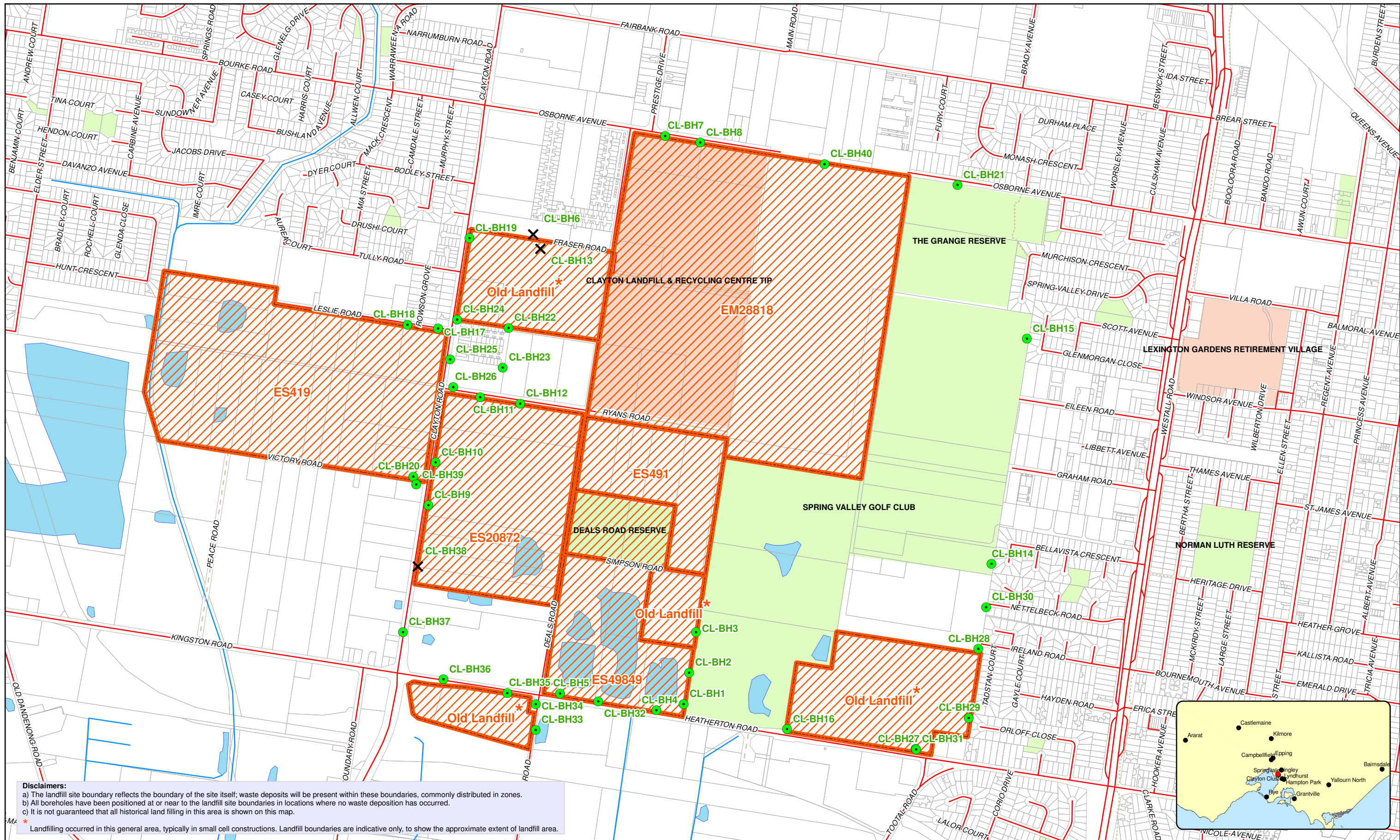
EPA  
 Preliminary Landfill Screening Project

Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
 Castlemaine Licence No. ES24499

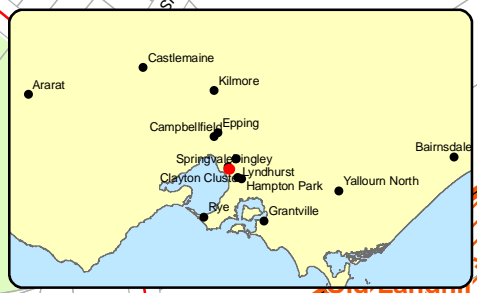
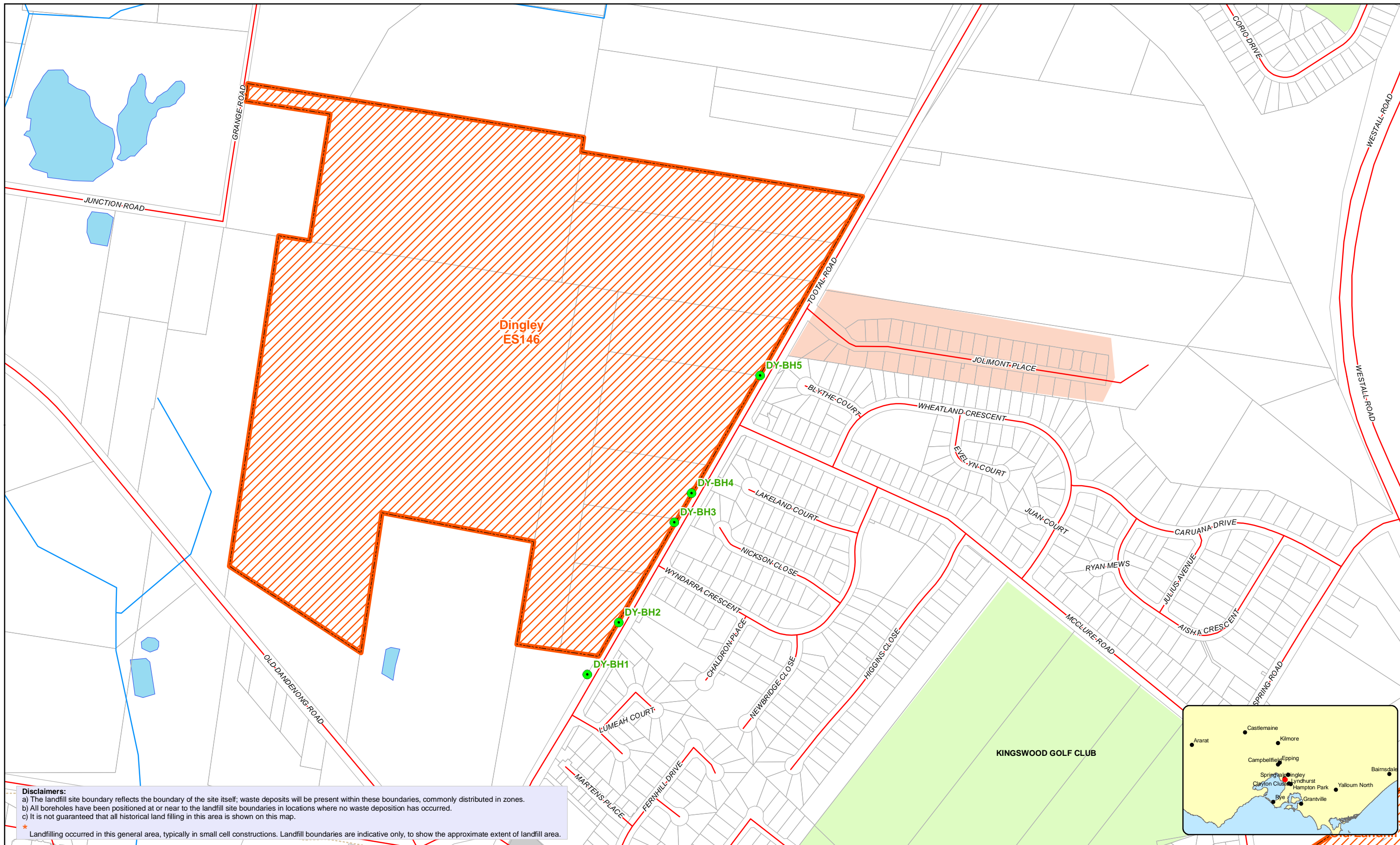
**Appendix B**



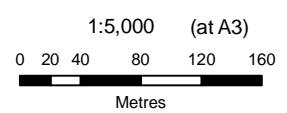


<p>1:10,000 (at A3)</p> <p>0 40 80 160 240 320</p> <p>Metres</p> <p>Map Projection: Transverse Mercator Horizontal Datum: Geocentric Datum of Australia Grid: VicGrid 1994</p>		<p><b>Legend</b></p> <table border="0"> <tr> <td> Borehole</td> <td> Sealed Road (Arterial &amp; Local)</td> <td> River</td> <td> Lake</td> <td> Camping/Caravan Park</td> </tr> <tr> <td> Refused Borehole</td> <td> Unsealed Road</td> <td> Stream</td> <td> Salt Lake</td> <td> Carpark</td> </tr> <tr> <td> Freeway</td> <td> Unsealed Track</td> <td> Channel / Drain</td> <td> Watercourse Area</td> <td> Cemetery</td> </tr> <tr> <td> Highway</td> <td> Sealed Walking/Bike Trail</td> <td> Connector</td> <td> Wetland / Swamp</td> <td> Landmark</td> </tr> <tr> <td> Land Fill Site</td> <td> Unsealed Walking/Bike Trail</td> <td> Parcel</td> <td> Flat</td> <td> Recreation/Sporting Area</td> </tr> <tr> <td></td> <td></td> <td> Pondage</td> <td> Showgrounds</td> <td></td> </tr> </table>	Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park	Refused Borehole	Unsealed Road	Stream	Salt Lake	Carpark	Freeway	Unsealed Track	Channel / Drain	Watercourse Area	Cemetery	Highway	Sealed Walking/Bike Trail	Connector	Wetland / Swamp	Landmark	Land Fill Site	Unsealed Walking/Bike Trail	Parcel	Flat	Recreation/Sporting Area			Pondage	Showgrounds		<p>CLIENTS   PEOPLE   PERFORMANCE</p>	<p>EPA Preliminary Landfill Screening Project</p> <p><b>Bore Locations Clayton Landfills</b></p>	<p>Job Number 31-23655 Revision A Date Oct 2008</p> <p><b>Appendix B</b></p>
Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park																															
Refused Borehole	Unsealed Road	Stream	Salt Lake	Carpark																															
Freeway	Unsealed Track	Channel / Drain	Watercourse Area	Cemetery																															
Highway	Sealed Walking/Bike Trail	Connector	Wetland / Swamp	Landmark																															
Land Fill Site	Unsealed Walking/Bike Trail	Parcel	Flat	Recreation/Sporting Area																															
		Pondage	Showgrounds																																

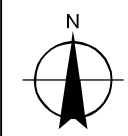




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 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994



Legend	
Borehole	Sealed Road (Arterial & Local)
Refused Borehole	River
Freeway	Stream
Highway	Channel / Drain
Land Fill Site	Connector
	Parcel
	Lake
	Salt Lake
	Watercourse Area
	Wetland / Swamp
	Flat
	Pondage
	Camping/Caravan Park
	Carpark
	Cemetery
	Landmark
	Recreation/Sporting Area
	Showgrounds

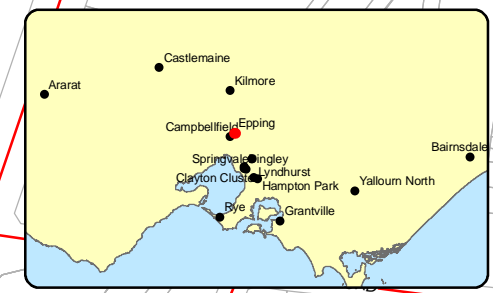
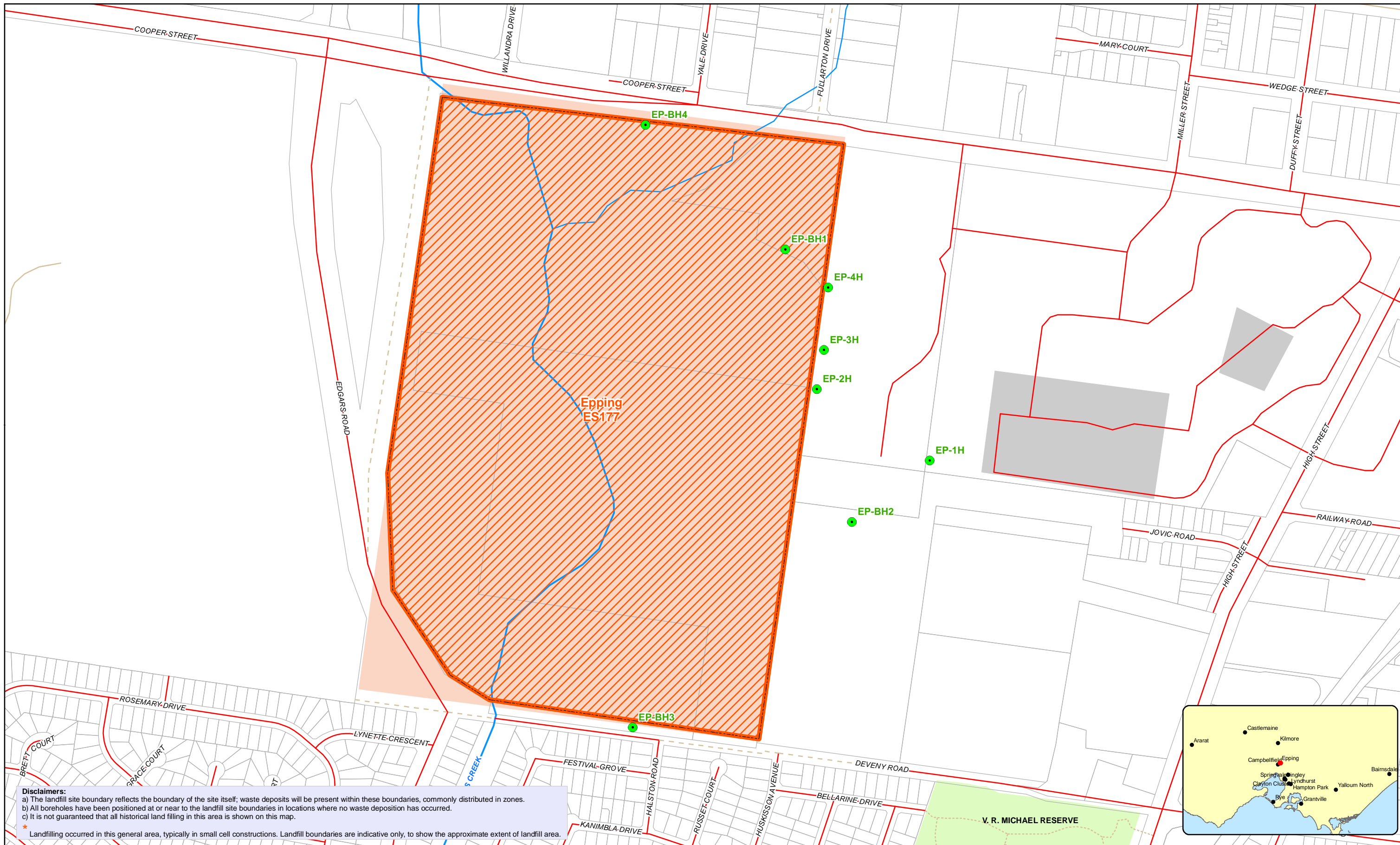


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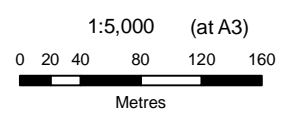
Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
 Dingley  
 Licence No. ES 146

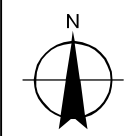
**Appendix B**



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Legend	
Borehole	Sealed Road (Arterial & Local)
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	Wetland / Swamp
	Flat
	Pondage
	Camping/Caravan Park
	Carpark
	Cemetery
	Landmark
	Recreation/Sporting Area
	Showgrounds

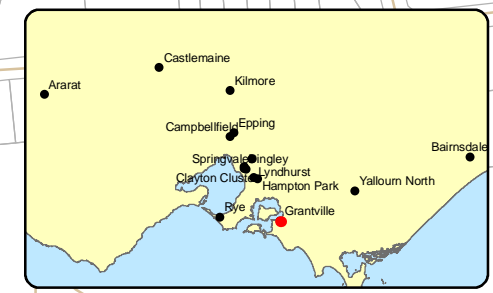
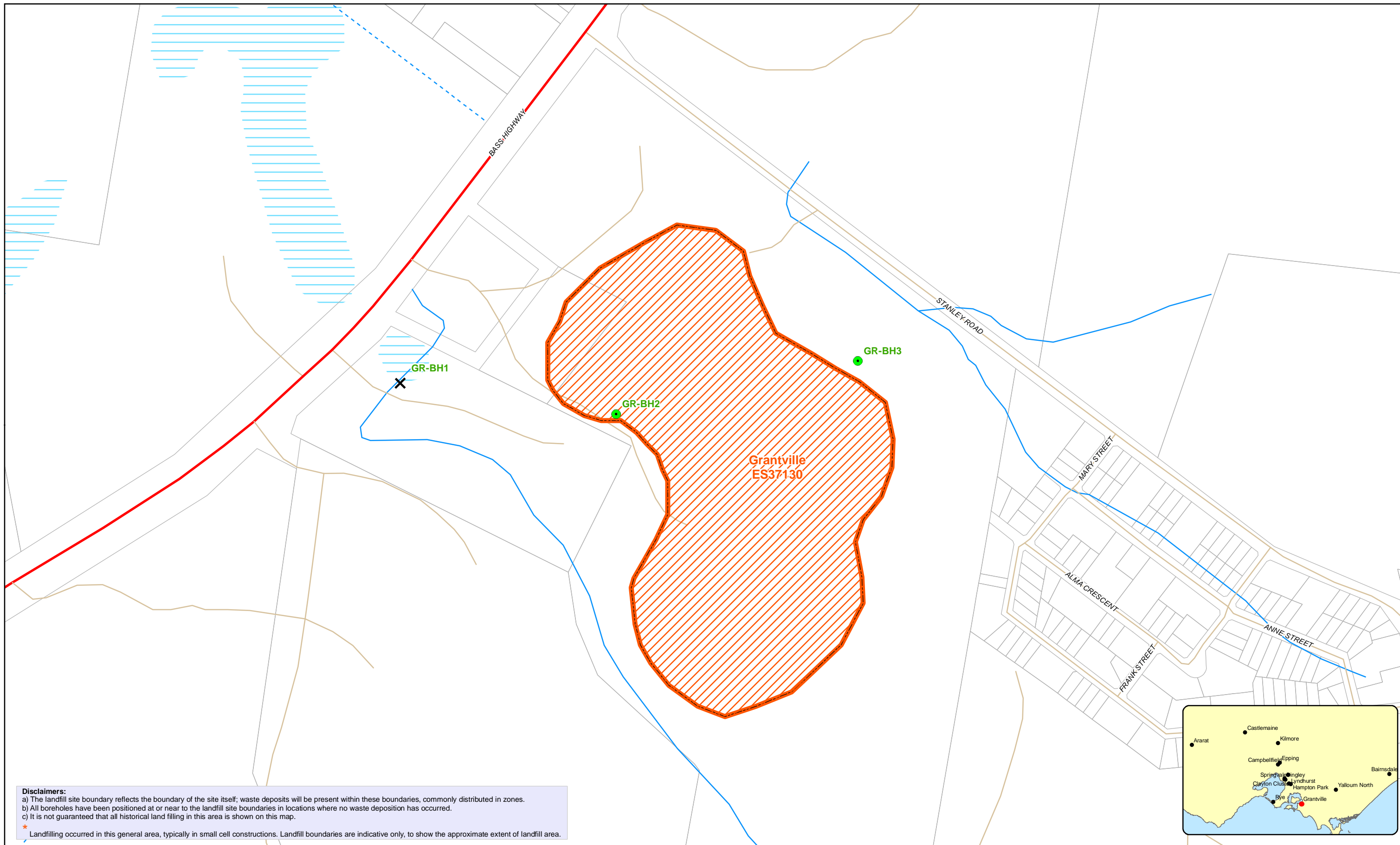


EPA  
 Preliminary Landfill Screening Project

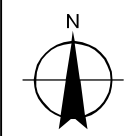
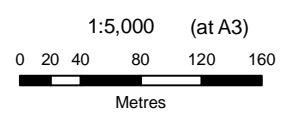
Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
**Epping**  
 Licence No. ES177

**Appendix B**



**Disclaimers:**  
 a) The landfill site boundary reflects the boundary of the site itself; waste deposits will be present within these boundaries, commonly distributed in zones.  
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Map Projection: Transverse Mercator  
 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994

Legend				
<span style="color: green;">●</span> Borehole	<span style="color: red;">—</span> Sealed Road (Arterial & Local)	<span style="color: blue;">—</span> River	<span style="background-color: lightblue;">■</span> Lake	<span style="background-color: lightgrey;">■</span> Camping/Caravan Park
<span style="color: black;">✕</span> Refused Borehole	<span style="color: brown;">—</span> Unsealed Road	<span style="color: blue;">—</span> Stream	<span style="background-color: lightblue; border: 1px solid blue;">■</span> Salt Lake	<span style="background-color: yellow;">■</span> Carpark
<span style="color: green;">—</span> Freeway	<span style="color: brown;">- - -</span> Unsealed Track	<span style="color: blue;">- - -</span> Channel / Drain	<span style="background-color: lightblue; border: 1px dashed blue;">■</span> Watercourse Area	<span style="background-color: yellow;">■</span> Cemetery
<span style="color: red;">—</span> Highway	<span style="color: red;">- - -</span> Sealed Walking/Bike Trail	<span style="color: blue;">—</span> Connector	<span style="background-color: lightblue; border: 1px solid blue;">■</span> Wetland / Swamp	<span style="background-color: yellow;">■</span> Landmark
<span style="border: 2px solid orange; padding: 2px;"> </span> Land Fill Site	<span style="color: red;">- - -</span> Unsealed Walking/Bike Trail	<span style="border: 1px solid grey;">■</span> Parcel	<span style="background-color: lightblue;">■</span> Flat	<span style="background-color: yellow;">■</span> Recreation/Sporting Area
			<span style="background-color: lightblue; border: 1px solid blue;">■</span> Pondage	<span style="background-color: yellow;">■</span> Showgrounds



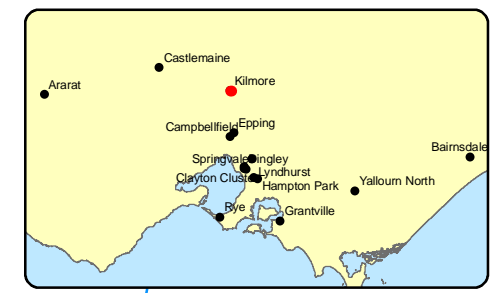
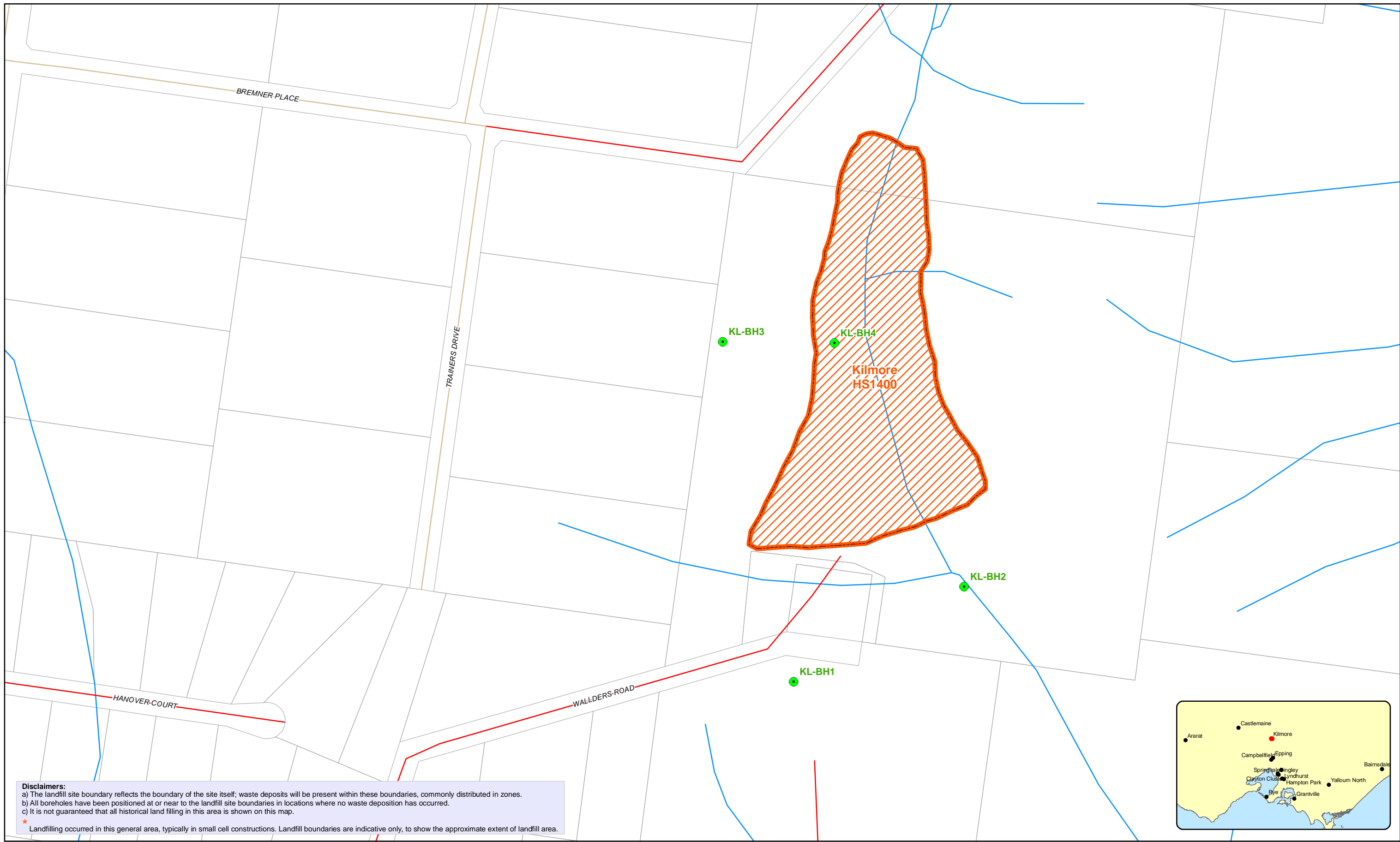
EPA  
 Preliminary Landfill Screening Project

Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

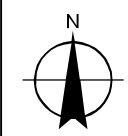
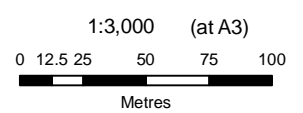
**Bore Locations**  
**Grantville** Licence No. **ES37130**

**Appendix B**





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Legend	
<span style="color: green;">●</span> Borehole	Sealed Road (Arterial & Local)
<span style="color: red;">✗</span> Refused Borehole	Unsealed Road
<span style="color: green;">▬</span> Freeway	Unsealed Track
<span style="color: red;">▬</span> Highway	Sealed Walking/Bike Trail
<span style="border: 1px solid orange; padding: 2px;"> </span> Land Fill Site	Unsealed Walking/Bike Trail
<span style="color: blue;">▬</span> River	Channel / Drain
<span style="color: blue;">▬</span> Stream	Connector
<span style="color: blue;">▬</span> Lake	Parcel
<span style="color: blue;">▬</span> Salt Lake	Watercourse Area
<span style="color: blue;">▬</span> Wetland / Swamp	Flat
<span style="color: blue;">▬</span> Pondage	Camping/Caravan Park
<span style="color: blue;">▬</span> Cemetery	Landmark
<span style="color: blue;">▬</span> Recreation/Sporting Area	Showgrounds



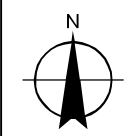
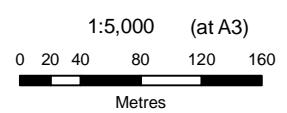
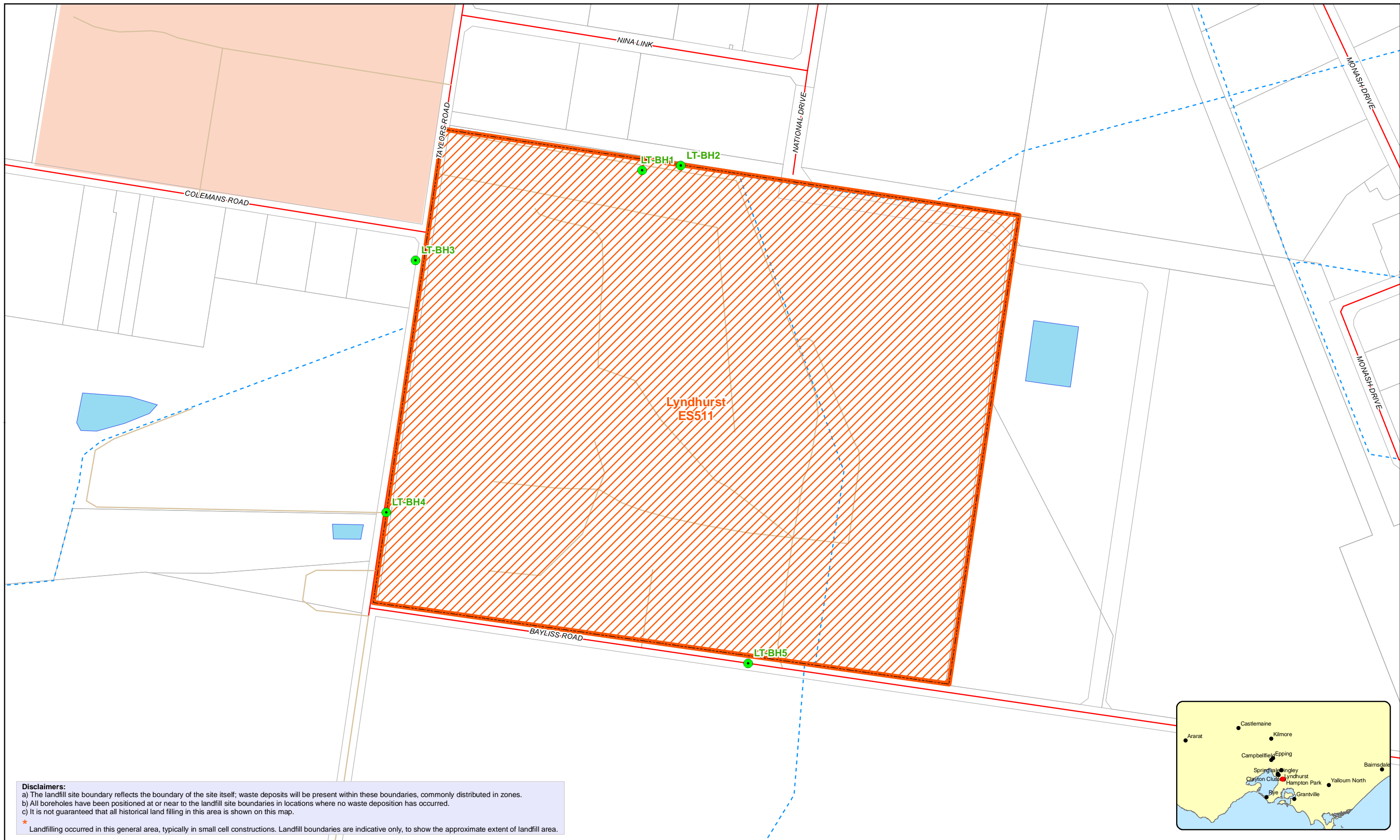
EPA  
 Preliminary Landfill Screening Project

Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
 Kilmore  
 Licence No. HS1400

**Appendix B**





Map Projection: Transverse Mercator  
 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994

Legend	
Borehole	Sealed Road (Arterial & Local)
Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
Land Fill Site	Unsealed Walking/Bike Trail
River	Channel / Drain
Stream	Connector
Lake	Parcel
Salt Lake	Pondage
Watercourse Area	Wetland / Swamp
Flat	Flat
Camping/Caravan Park	Cemetery
Carpark	Landmark
Recreation/Sporting Area	Showgrounds

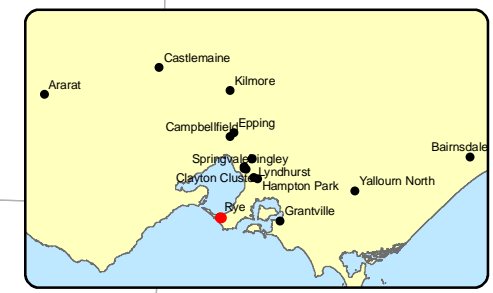
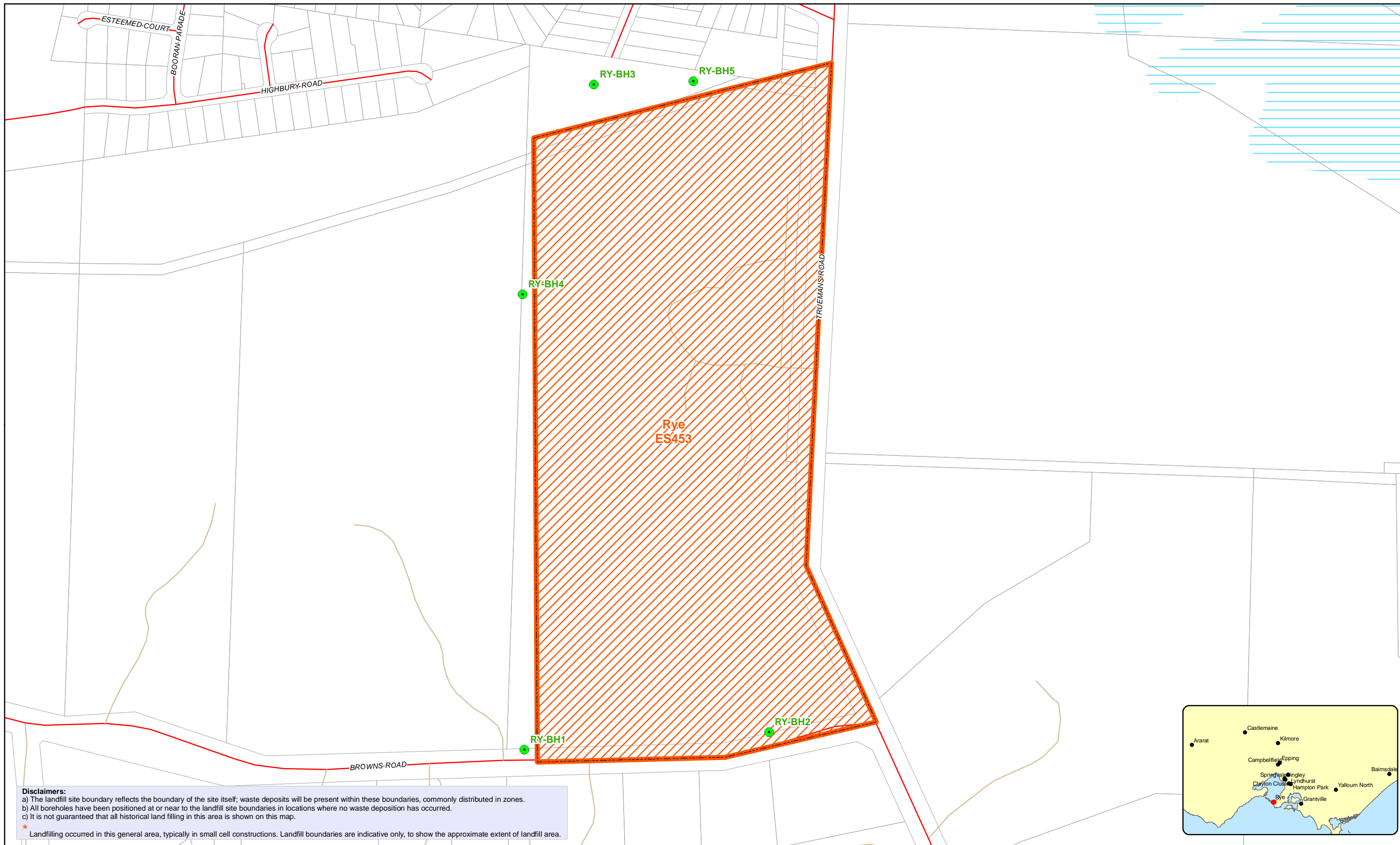


EPA  
 Preliminary Landfill Screening Project

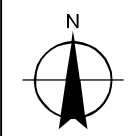
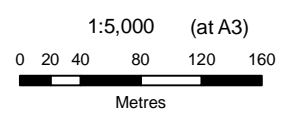
Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
 Lyndhurst  
 Licence No. ES 511

**Appendix B**



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Map Projection: Transverse Mercator  
 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994

Legend	
Borehole	Sealed Road (Arterial & Local)
Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
Land Fill Site	Unsealed Walking/Bike Trail
River	Channel / Drain
Stream	Connector
Lake	Parcel
Salt Lake	Pondage
Watercourse Area	Wetland / Swamp
Flat	Camping/Caravan Park
Recreation/Sporting Area	Cemetery
Showgrounds	Landmark



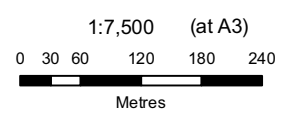
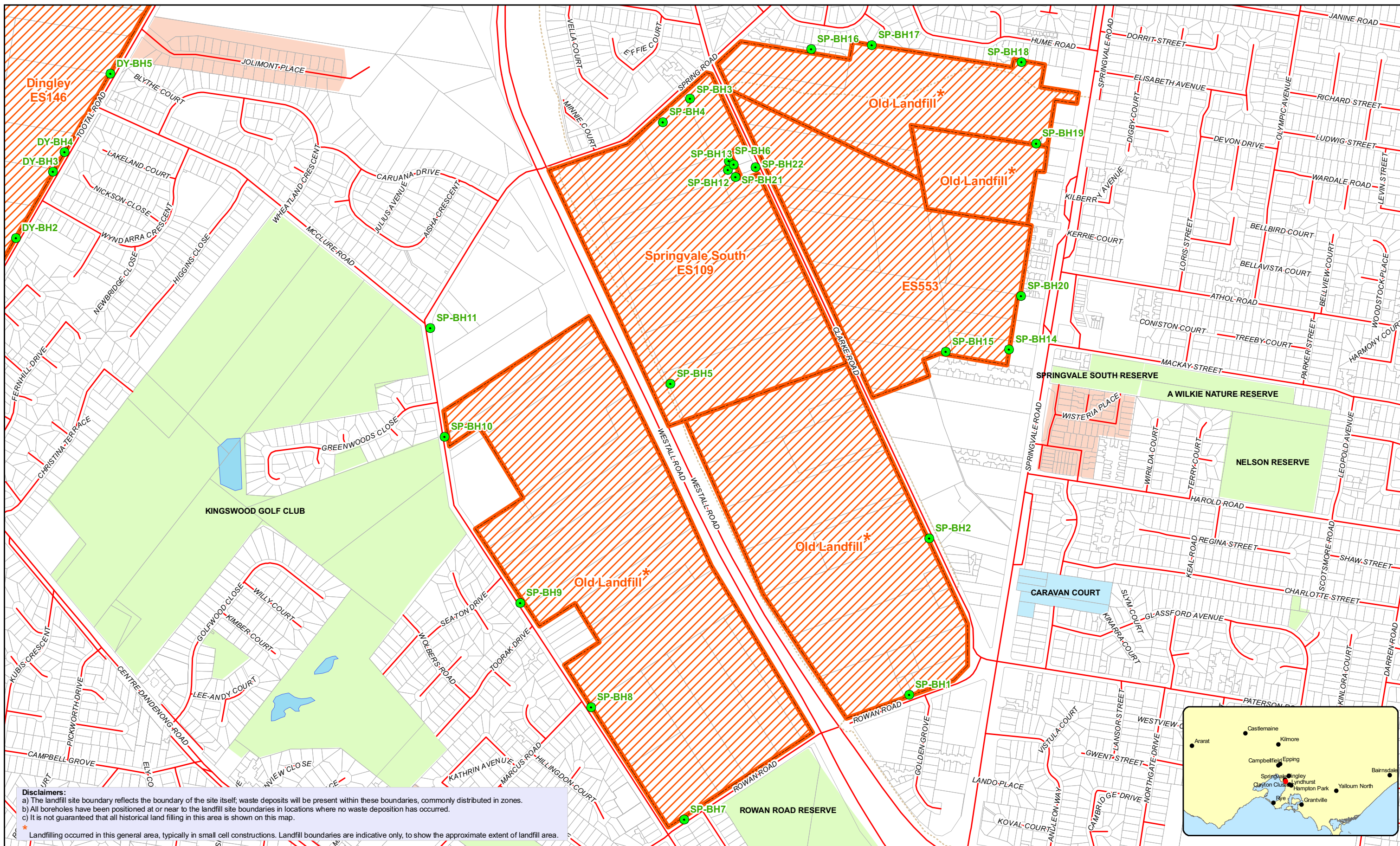
EPA  
 Preliminary Landfill Screening Project

Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

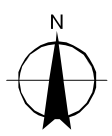
**Bore Locations**  
**Rye**  
**Licence No. ES453**

**Appendix B**





Map Projection: Transverse Mercator  
 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994



Legend	
Borehole	Sealed Road (Arterial & Local)
Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
Land Fill Site	Unsealed Walking/Bike Trail
River	Channel / Drain
Stream	Connector
River	Parcel
Lake	Wetland / Swamp
Salt Lake	Flat
Watercourse Area	Pondage
Camping/Caravan Park	Showgrounds
Carpark	
Cemetery	
Landmark	
Recreation/Sporting Area	



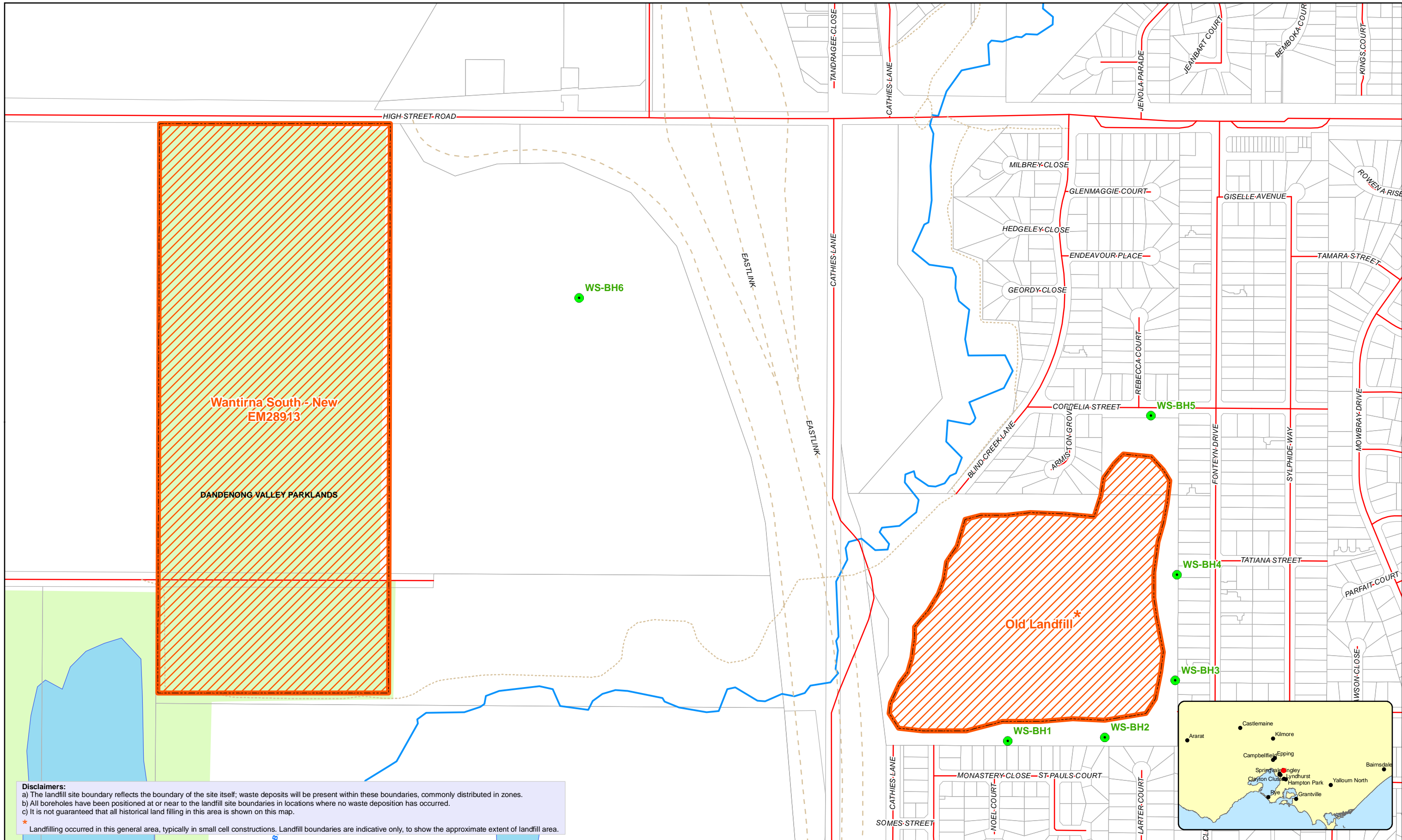
EPA  
 Preliminary Landfill Screening Project

Job Number 31-23655  
 Revision A  
 Date Oct 2008

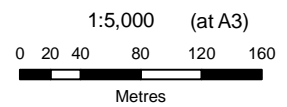
### Bore Locations Springvale Landfills

### Appendix B

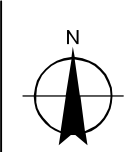




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Map Projection: Transverse Mercator  
 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994



**Legend**

- |                  |                                |                 |                  |                          |
|------------------|--------------------------------|-----------------|------------------|--------------------------|
| Borehole         | Sealed Road (Arterial & Local) | River           | Lake             | Camping/Caravan Park     |
| Refused Borehole | Unsealed Road                  | Stream          | Salt Lake        | Carpark                  |
| Freeway          | Unsealed Track                 | Channel / Drain | Watercourse Area | Cemetery                 |
| Highway          | Sealed Walking/Bike Trail      | Connector       | Wetland / Swamp  | Landmark                 |
| Land Fill Site   | Unsealed Walking/Bike Trail    | Parcel          | Flat             | Recreation/Sporting Area |
|                  |                                |                 | Pondage          | Showgrounds              |



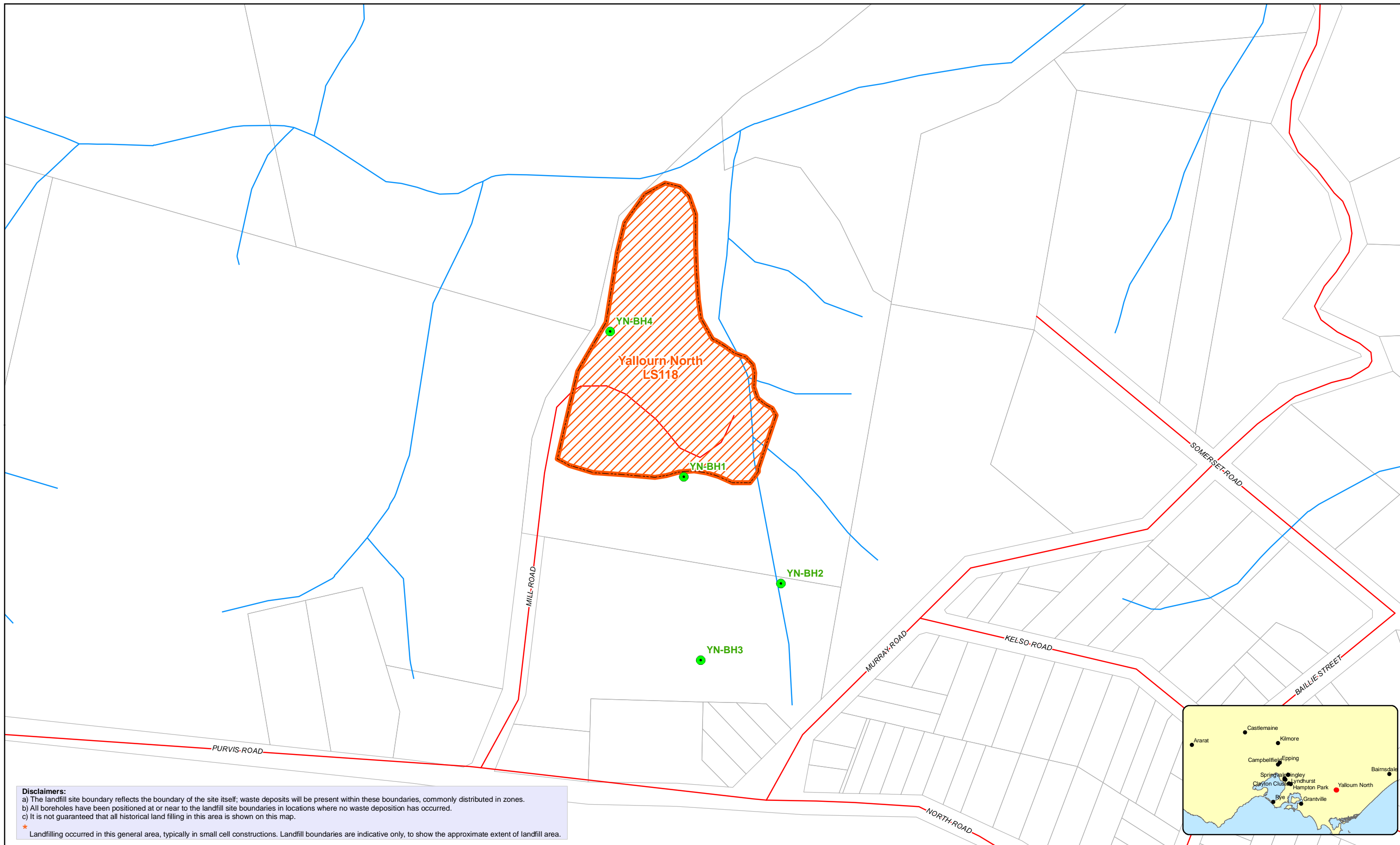
CLIENTS | PEOPLE | PERFORMANCE

EPA  
 Preliminary Landfill Screening Project

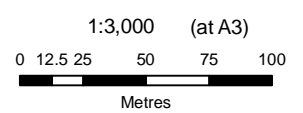
Job Number | 31-23655  
 Revision | A  
 Date | Oct 2008

**Bore Locations**  
 Wantirna South Licence No. EM28913

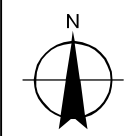
**Appendix B**



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Map Projection: Transverse Mercator  
 Horizontal Datum: Geocentric Datum of Australia  
 Grid: VicGrid 1994



Legend	
<span style="color: green;">●</span> Borehole	Sealed Road (Arterial & Local)
<span style="color: red;">✕</span> Refused Borehole	Unsealed Road
<span style="color: green;">▬</span> Freeway	Unsealed Track
<span style="color: red;">▬</span> Highway	Sealed Walking/Bike Trail
<span style="border: 1px solid orange; padding: 2px;"> </span> Land Fill Site	Unsealed Walking/Bike Trail
<span style="color: blue;">▬</span> River	Channel / Drain
<span style="color: blue;">▬</span> Stream	Connector
<span style="color: blue;">▬</span> Lake	Parcel
<span style="color: blue;">▬</span> Salt Lake	Watercourse Area
<span style="color: blue;">▬</span> Wetland / Swamp	Flat
<span style="color: blue;">▬</span> Pondage	Camping/Caravan Park
<span style="color: blue;">▬</span> Cemetery	Landmark
<span style="color: blue;">▬</span> Recreation/Sporting Area	Showgrounds



CLIENTS | PEOPLE | PERFORMANCE

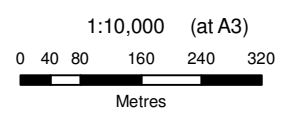
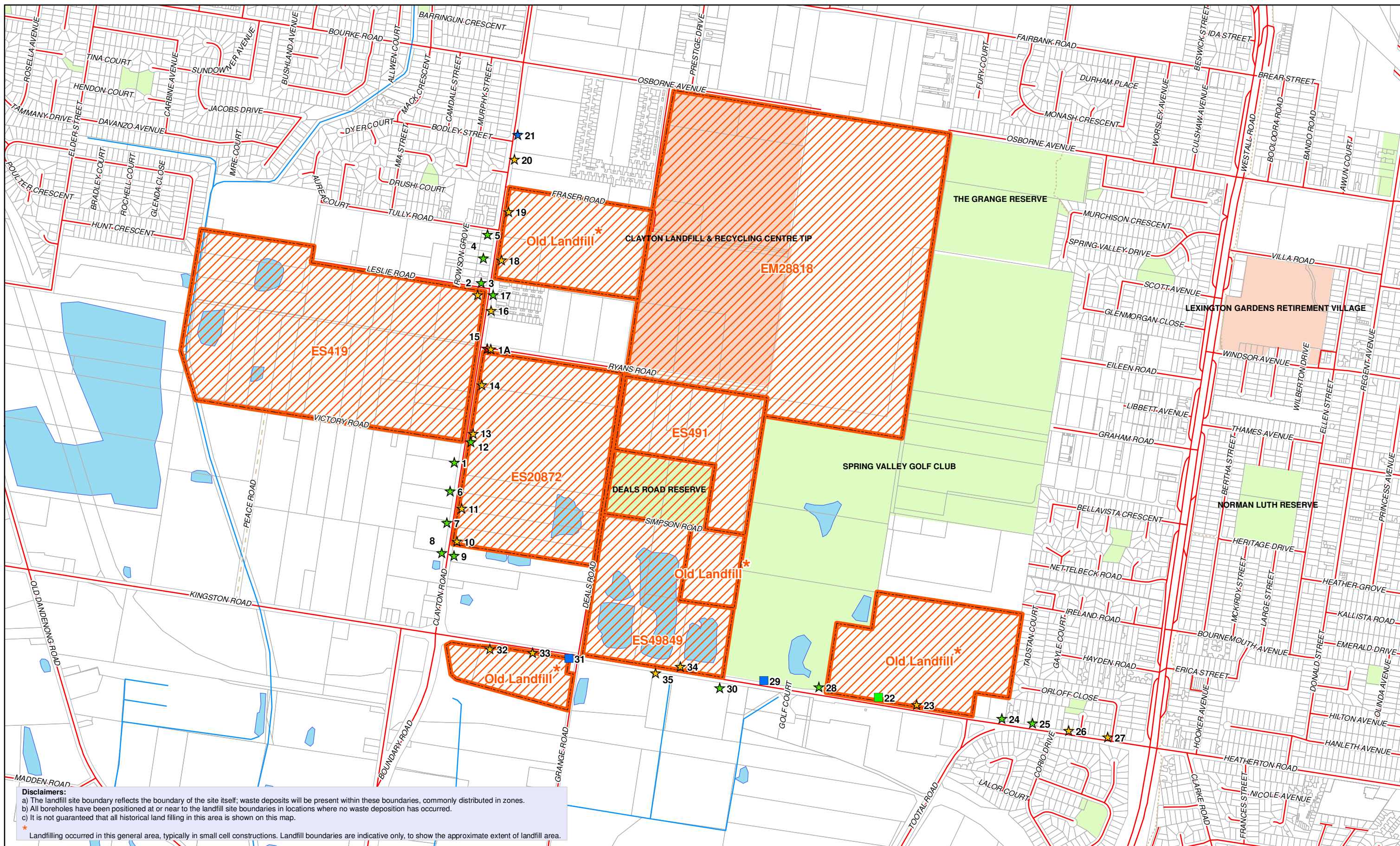
EPA  
 Preliminary Landfill Screening Project

**Bore Locations**  
 Yallourn North Licence No. LS118

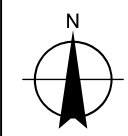
Job Number 31-23655  
 Revision A  
 Date Oct 2008

**Appendix B**





Map Projection: Transverse Mercator  
Horizontal Datum: Geocentric Datum of Australia  
Grid: VicGrid 1994



Legend	
★ Access Pit	Freeway
■ CFC Hydrant	Highway
★ Optus Pit	Sealed Road (Arterial & Local)
★ Telstra Pit	Unsealed Road
★ PMG Pit	Unsealed Track
■ Stormwater Drain	Sealed Walking/Bike Trail
	Unsealed Walking/Bike Trail
■ Land Fill Site	Elevation
■ Lake	River
■ Salt Lake	Stream
■ Watercourse Area	Channel / Drain
■ Wetland / Swamp	Connector
■ Flat	Parcel
■ Pondage	
■ Camping/Caravan Park	
■ Carpark	
■ Cemetery	
■ Landmark	
■ Recreation/Sporting Area	
■ Showgrounds	



EPA  
Preliminary Landfill Screening Project

**Service Sweep Locations  
Clayton Landfills**

Job Number | 31-23655  
Revision | A  
Date | Oct 2008

**Appendix B**



Appendix C  
Field Photographs



**Appendix C1**  
**Field Photographs – Ararat (HS311)**





## Ararat (HS311)



**B1 – North**



**B1 – South**



**B1 – East**



**B1 – West**



## Ararat (HS311)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**



**Appendix C2**  
**Field Photographs – Bairnsdale (LS 169)**





## Bairnsdale (LS 169)

	
<p><b>B1 – North</b></p>	<p><b>B1 – South</b></p>
	
<p><b>B1 – East</b></p>	<p><b>B1 – West</b></p>



## Bairnsdale (LS 169)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**





## Bairnsdale (LS 169)



**B3 – North**



**B3 – South**







**B3 – East**



**B3 – West**



## Bairnsdale (LS 169)

	
<p><b>B4 – North</b></p>	<p><b>B4 – South</b></p>
	
<p><b>B4 – East</b></p>	<p><b>B4 – West</b></p>





## Bairnsdale (LS 169)

	
<p><b>B5 – North</b></p>	<p><b>B5 – South</b></p>
	
<p><b>B5 – East</b></p>	<p><b>B5 – West</b></p>





## Bairnsdale (LS 169)

	
<p><b>B6 – North</b></p>	<p><b>B6 – South</b></p>
	
<p><b>B6 – East</b></p>	<p><b>B6 – West</b></p>



## **Appendix C3**

### **Field Photographs – Campbellfield (ES 506)**



## Campbellfield (ES 506)



**B1 – North**



**B1 – West**



**B1 – East**





## Campbellfield (ES 506)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**



## Campbellfield (ES 506)



**B3 – North**



**B3 – South**



**Appendix C4**  
**Field Photographs – Castlemaine (ES 24499)**



## Castlemaine (ES 24499)



**B1 – North**



**B1 – South**



**B1 – East**



**B1 – West**





## Castlemaine (ES 24499)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**





## Castlemaine (ES 24499)



**B3 – North**



**B3 – South**



**B3 – East**



**B3 – West**



## **Appendix C5**

### **Field Photographs – Clayton Landfills**



## Clayton Landfills



**B1 – North**



**B1 – South**



**B1 – East**



**B1 – West**





## Clayton Landfills



**B2 – North**



**B2 – South**







**B2 – East**



**B2 – West**



## Clayton Landfills

	
<p><b>B3 – North</b></p>	<p><b>B3 – South</b></p>
	
<p><b>B3 – East</b></p>	<p><b>B3 – West</b></p>





## Clayton Landfills



**B4 – North**



**B4 – South**



**B4 – East**



**B4 – West**



## Clayton Landfills

	
<p><b>B5 – North</b></p>	<p><b>B5 – South</b></p>
	
<p><b>B5 – East</b></p>	<p><b>B5 – West</b></p>

**NOTE: No photos available for bore BH6**





## Clayton Landfills

	
<p><b>B7 – North</b></p>	<p><b>B7 – South</b></p>
	
<p><b>B7 – East</b></p>	<p><b>B7 – West</b></p>





## Clayton Landfills



**B8 – North**



**B8 – South**



**B8 – East**



**B8 – West**



## Clayton Landfills



**B9 – North**



**B9 – South**



**B9 – East**



**B9 – West**





## Clayton Landfills



**B10\***







**B10\***

\* Direction of photo unknown; no additional photos available



## Clayton Landfills

	
<p><b>B11 – North</b></p>	<p><b>B11 – South</b></p>
	
<p><b>B11 – East</b></p>	<p><b>B11 – West</b></p>





## Clayton Landfills



**B12 – North**



**B12 – South**



**B12 – East**



**B12 – West**

**NOTE: No photos available for bore BH13**





## Clayton Landfills



**B14 North**



**B14 South**



**B14 East**



**B14 West**



## Clayton Landfills



**B15 – West**



**B15 – South**



**B15 – East**



**B15 – North**





## Clayton Landfills



**B16 North**



**B16 South**



**B16 West**



## Clayton Landfills



**B17 North**



**B17 West**



**B17 East**



## Clayton Landfills



**B18 North**



**B18 South**



**B18 East**



**B18 West**





## Clayton Landfills



**B19 North**



**B19 South**



**B19 West**





## Clayton Landfills



**B20 West**



**B20 East**



## Clayton Landfills



**B21 North**



**B21 South**



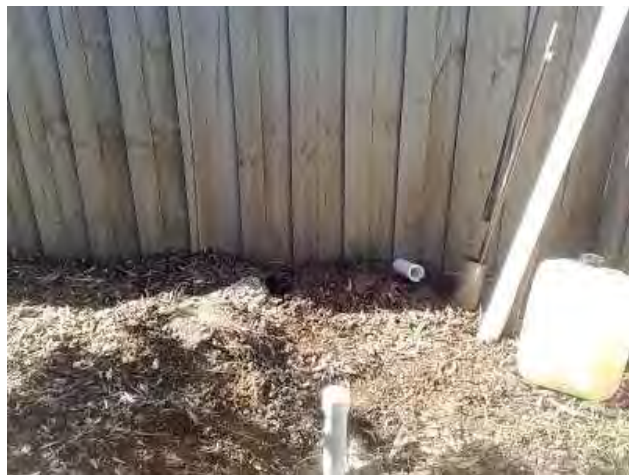
**B21 East**



**B21 West**



## Clayton Landfills



**B22 – North**



**B22 – South-West**



**B22 – East**

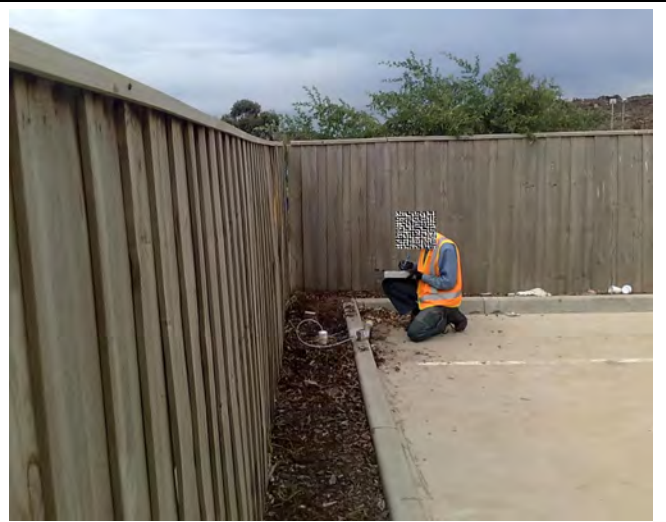




## Clayton Landfills



**B23 – North**



**B23 – South**



**B23 – East**



**B23 – West**



## Clayton Landfills



**B24 – North**



**B24 – South**



**B24 – East**



**B24 – West**





## Clayton Landfills



**B25 – North**



**B25 – South**



**B25 – East**



**B25 – West**



## Clayton Landfills



**B26 – North**



**B26 – South**



**B26 – East**



**B26 – West**





## Clayton Landfills



**B27 – North**



**B27 – South**



**B27 – East**



**B27 – West**



## Clayton Landfills



**B28 – North**



**B28 – South**



**B28 – East**



**B28 – West**

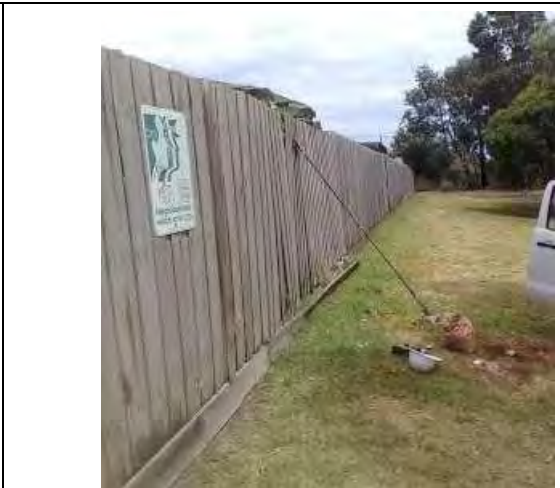




## Clayton Landfills



**B29 – North**



**B29 – South**



**B29 – East**



**B29 – West**





## Clayton Landfills



**B30 – North**



**B30 – South**



**B30 – East**



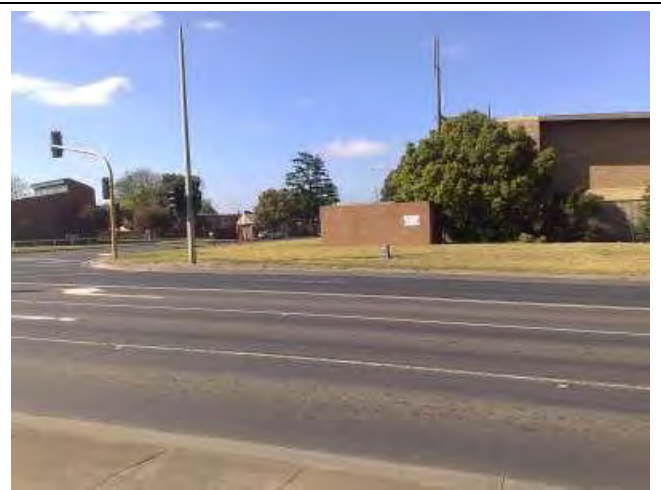
**B30 – West**



## Clayton Landfills



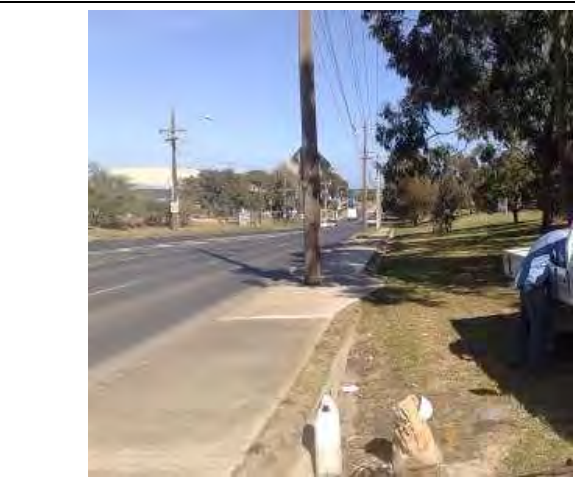
**B31 – North**



**B31 – South**



**B31 – East**



**B31 – West**





## Clayton Landfills



**B32 – North**



**B32 – South**



**B32 – East**



**B32 – West**



## Clayton Landfills



**B33 – North**



**B33 – South**



**B33 – East**



**B33 – West**





## Clayton Landfills



**B34 – North**



**B34 – South**



**B34 – East**



**B34 – West**





## Clayton Landfills



**B35 – North**



**B35 – South**



**B35 – East**



**B35 – West**



## Clayton Landfills

	
<p><b>B36 – North</b></p>	<p><b>B36 – South</b></p>
	
<p><b>B36 – East</b></p>	<p><b>B36 – West</b></p>





## Clayton Landfills



**B37 – North**



**B37 – South**



**B37 – East**



**B37 – West**

**NOTE: No photos available for bore BH38**



# Clayton Landfills



**B39 – North**



**B39 – South**



**B39 – East**



**B39 – West**





## Clayton Landfills



**B40 – North**



**B40 – South**



**B40 – East**



**B40 – West**









**Appendix C8**  
**Field Photographs – Dingley (ES 146)**



## Dingley (ES 146)

	
<p><b>B1 – North</b></p>	<p><b>B1 – South</b></p>
	
<p><b>B1 – East</b></p>	<p><b>B1 – West</b></p>



## Dingley (ES 146)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**





## Dingley (ES 146)



**B3 – North**



**B3 – South**



**B3 – East**



**B3 – West**



## Dingley (ES 146)



**B4 – North**



**B4 – South**



**B4 – East**



**B4 – West**





## Dingley (ES 146)



**B5 – North**



**B5 – South**



**B5 – East**





**B5 – West**



**Appendix C9**  
**Field Photographs – Epping (ES 177)**



## Epping (ES 177)

	
<p><b>B1 – North</b></p>	<p><b>B1 – South</b></p>
	
<p><b>B1 – East</b></p>	<p><b>B1 – West</b></p>





## Epping (ES 177)

	
<p><b>B2 – North</b></p>	<p><b>B2 – South</b></p>
	
<p><b>B2 – East</b></p>	<p><b>B2 – West</b></p>





## Epping (ES 177)



**B3 – North**



**B3 – South**



**B3 – East**



**B3 – West**

## Epping (ES 177)



**B4 – North**



**B4 – South**



**B4 – East**

Note: Photographs are not available for bores 1H-4H



**Appendix C10**  
**Field Photographs – Grantville (ES 37130)**





## Grantville (ES 37130)

NOTE: It was not possible to establish bore BH01

	
<p><b>B2 – North</b></p>	<p><b>B2 – South</b></p>
	
<p><b>B2 – East</b></p>	<p><b>B2 – West</b></p>





## Grantville (ES 37130)



**B3 – North**



**B3 – South**



**B3 – East**



**B3 – West**



**Appendix C12**  
**Field Photographs – Kilmore (HS 1400)**



## Kilmore (HS 1400)



**B1 – North**



**B1 – South**



**B1 – East**



**B1 – West**





## Kilmore (HS 1400)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**





## Kilmore (HS 1400)

<p><b>B3 – North</b></p>	<p><b>B3 – South</b></p>
<p><b>B3 – East</b></p>	<p><b>B3 – West</b></p>



## Kilmore (HS 1400)

	
<p><b>B4 – North</b></p>	<p><b>B4 – South</b></p>
	
<p><b>B4 – East</b></p>	<p><b>B4 – West</b></p>



**Appendix C13**  
**Field Photographs – Lyndhurst (ES 511)**





# Lyndhurst (ES 511)



**B1 – North**



**B1 – South**



**B1 – East**



**B1 – West**








## Lyndhurst (ES 511)

 <p>A close-up photograph showing a yellow auger bit partially buried in dark, moist soil. A white bucket is visible in the foreground, and tall grasses are in the background.</p>	 <p>A photograph of a yellow auger mounted on a tractor in a field. The auger is positioned vertically, and a white bucket is on the ground nearby. The background shows a line of trees and a cloudy sky.</p>
<p><b>B2 – North</b></p>	<p><b>B2 – South</b></p>
 <p>A photograph showing a yellow auger positioned behind a chain-link fence. The auger is partially obscured by the fence and some dry brush. A white bucket is visible in the foreground.</p>	 <p>A photograph of a yellow auger in a field, with a chain-link fence visible in the background. A white bucket is in the foreground. The ground is covered with grass and some debris.</p>
<p><b>B2 – East</b></p>	<p><b>B2 – West</b></p>







## Lyndhurst (ES 511)

	
<b>B3 – North</b>	<b>B3 – South</b>
	
<b>B3 – East</b>	<b>B3 – West</b>





## Lyndhurst (ES 511)

	
<b>B4 – North</b>	<b>B4 – South</b>
	
<b>B4 – East</b>	<b>B4 – West</b>



## Lyndhurst (ES 511)



**B5 – North**



**B5 – South**



**B5 – East**



**B5 – West**





**Appendix C14**  
**Field Photographs – Rye (ES 453)**



## Rye (ES 453)



**B1 – North**



**B1 – South**



**B1 – East**






**B1 – West**









## Rye (ES 453)

	
<p><b>B2 – North</b></p>	<p><b>B2 – South</b></p>
	
<p><b>B2 – East</b></p>	<p><b>B2 – West</b></p>







## Rye (ES 453)

	
<p><b>B3 – North</b></p>	<p><b>B3 – South</b></p>
	
<p><b>B3 – East</b></p>	<p><b>B3 – West</b></p>









## Rye (ES 453)

	
<p><b>B4 – North</b></p>	<p><b>B4 – South</b></p>
	
<p><b>B4 – East</b></p>	<p><b>B4 – West</b></p>



## Rye (ES 453)

	
<p><b>B5 – North</b></p>	<p><b>B5 – South</b></p>
	
<p><b>B5 – East</b></p>	<p><b>B5 – West</b></p>



## **Appendix C15**

### **Field Photographs – Springvale Landfills**





## Springvale Landfills

	
<p><b>B1 – North</b></p>	<p><b>B1 – South</b></p>
	
<p><b>B1 – East</b></p>	<p><b>B1 – West</b></p>





## Springvale Landfills



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**



## Springvale Landfills



**B3 – North**



**B3 – South**



**B3 – East**



**B3 – West**





## Springvale Landfills



**B4 – North**



**B4 – South**



**B4 – East**



**B4 – West**



## Springvale Landfills



**B5 – North**



**B5 – South**



**B5 – East**



**B5 – West**





## Springvale Landfills



**B6 – North**



**B6 – South**



**B6 – East**



**B6 – West**



## Springvale Landfills

	
<p><b>B7 – North</b></p>	<p><b>B7 – South</b></p>
	
<p><b>B7 – East</b></p>	<p><b>B7 – West</b></p>



## Springvale Landfills



**B8 – North**



**B8 – East**





## Springvale Landfills



**B9 – North**



**B9 – South**



**B9 – East**



**B9 – West**





## Springvale Landfills



**B10 – North**



**B10 – South**



**B10 – East**



**B10 – West**

**NOTE: No photos are available for bore BH11**



## Springvale Landfills



**B12 – North**



**B12 – South**



**B12 – East**



**B12 – West**





## Springvale Landfills



**B13 – North**



**B13 – South**



**B13 – East**



**B13 – West**





## Springvale Landfills



**B14 – North**



**B14 – South**



**B14 – East**



**B14 – West**





## Springvale Landfills



**B15 – North**



**B15 – South**



**B15 – East**



**B15 – West**



## Springvale Landfills



**B16 – North**



**B16 – South**



**B16 – East**



**B16 – West**





## Springvale Landfills



**B17 – North**



**B17 – South**



**B17 – East**



**B17 – West**



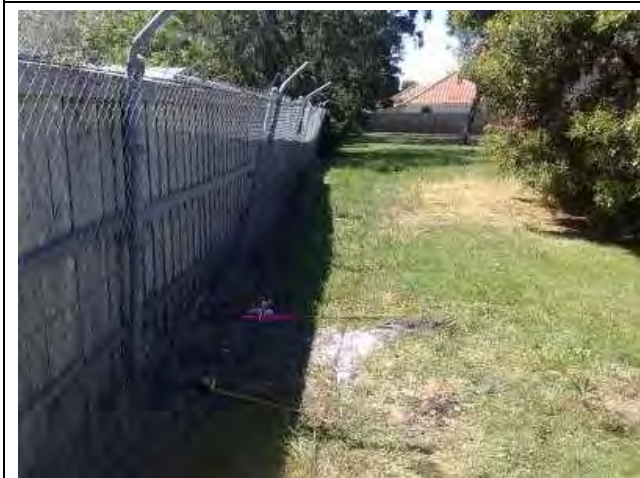
## Springvale Landfills



**B18 – North**



**B18 – South**



**B18 – East**



**B18 – West**





## Springvale Landfills



**B19 – North**



**B19 – South**



**B19 – East**



**B19 – West**



## Springvale Landfills



**B20 – North**



**B20 – South**



**B20 – East**



**B20 – West**

**NOTE: No photos are available for bore BH21**





## Springvale Landfills



**B22 – North**



**B22 – South**



**B22 – East**



**B22 – West**



**Appendix C16**  
**Field Photographs – Wantirna South (EM 28913)**





## Wantirna South (EM 28913)



**B1 – North**



**B1 – South**



**B1 – East**



**B1 – West**



## Wantirna South (EM 28913)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**





## Wantirna South (EM 28913)



**B3 – North**



**B3 – South**



**B3 – East**



**B3 – West**



## Wantirna South (EM 28913)



**B4 – North**



**B4 – South**



**B4 – East**



**B4 – West**





## Wantirna South (EM 28913)



**B5 – North**



**B5 – South**



**B5 – East**



**B5 – West**



## Wantirna South (EM 28913)



**B6 – North**



**B6 – South**



**B6 – East**



**B6 – West**



**Appendix C17**  
**Field Photographs – Yallourn North (LS 118)**





## Yallourn North (LS 118)

	
<p><b>B1 – North</b></p>	<p><b>B1 – South</b></p>
	
<p><b>B1 – East</b></p>	<p><b>B1 – West</b></p>





## Yallourn North (LS 118)



**B2 – North**



**B2 – South**



**B2 – East**



**B2 – West**



## Yallourn North (LS 118)



**B3 – North**



**B3 – South**



**B3 – East**



**B3 – West**





## Yallourn North (LS 118)

	
<p><b>B4 – North</b></p>	<p><b>B4 – South</b></p>
	
<p><b>B4 – East</b></p>	<p><b>B4 – West</b></p>



Appendix D

## Summary of Methane Analyser and Sensor Specifications





### Summary of Methane Analysers and Sensor Specifications

Initial methane monitoring at these sites was undertaken using a QRAE Plus portable gas analyser. This instrument uses a protected dual-mode catalytic bead detector to detect combustible gases (taken as a proxy for methane in this investigation) and an electrochemical fuel-cell to detect oxygen. The technical specification of the sensors in this instrument is given in Table 1 below.

**Table 1 - QRAE Plus Sensor Specifications**

Gas	Sensor Type	Range	Resolution
Combustibles#	Protected dual-mode catalytic bead	0 – 100% LEL*, and 0 – 100% volume	1% of LEL and 1% of volume
Oxygen	Electrochemical fuel-cell	0 – 30% volume	0.1%

# Combustibles used as a proxy for methane in this investigation.

\*LEL = Lower explosive limit (approximately 5% methane in air).

Subsequent monitoring rounds utilised a GA2000 portable gas analyser.

This instrument uses a dual wavelength infrared cell with reference channel to detect methane and an internal electrochemical cell to detect oxygen. The technical specification of these sensors in this instrument are given in Table 2 below.

**Table 2 – GA2000 Sensor Specifications**

Gas	Sensor Type	Range	Typical Accuracy 0 – 5% Volume	Typical Accuracy 5 – 15% Volume	Typical Accuracy 15% – Full Scale	Full Scale
Methane	Dual wavelength infrared cell with reference channel	0 – 70% to specification, 0 – 100% reading	+/- 0.5% (vol)	+/- 1.0% (vol)	+/- 3.0% (vol)	70%
Oxygen	Electrochemical cell	0 – 70% to specification, 0 – 100% reading	+/- 1.0% (vol)	+/- 1.0% (vol)	+/- 1.0% (vol)	25%



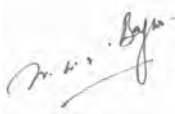
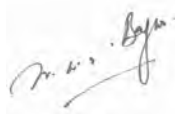
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### Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	P.R. CLAREY	M. KOLLER	**	W. BAJWA	**	27/11/08
1	P.R. CLAREY	M. KOLLER	**	W. BAJWA	**	09/12/08
2	P.R. CLAREY	W.BAJWA	**	W.BAJWA	**	22/12/08
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